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Analysis of a brief cognitive behavioral therapy

for panic discorder

D: 2027-1786.rip.11206

Análisis de un tratamiento cognitivo conductual abreviado para el trastorno de pánico

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Foto: **M. Maggs**

Rip 11(2)
Volumen 11 #2 ene-abr
10Años

Revista Iberoamericana de
Psicología
ISSN-l: 2027-1786 | e-ISSN: 2500-6517
Publicación Cuatrimestral

Revista Iberoamericana de
Psicología
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Author (s) / Autor (es):

Chicaiza

Keywords / Palabras Clave:

[en]: panic disorder; brief treatment; cultural adaptation; quasi-experimental.

[es]: trastorno de pánico; tratamiento abreviado; adaptación cultural; cuasi experimento.

Submited: 2018-03-24

Acepted: 2018-05-04

Resumen

El objetivo del presente estudio era determinar si una modificación hecha a los tratamientos tradicionales para el trastorno de pánico (TP) resultaba efectiva al ajustarse a las características culturales y económicas de pacientes en la región andina sur colombiana. Se empleó un modelo cuasi experimental, con mediciones antes y después del tratamiento, con seguimiento tras 1 y 2 años; la muestra fue constituida por 82 personas (47 mujeres y 35 hombres, con edades promedio de 34 y 29 años respectivamente). Los resultados mostraron una reducción de síntomas clínica del TP después del tratamiento (d> 0.8), la significancia en todos los casos fue $p < 0.001$ y los cambios se mantuvieron durante el periodo de seguimiento. En conclusión, es posible acercar el tratamiento a las características socio culturales de los pacientes a quienes está dirigido y fue posible reducir el número de sesiones manteniendo la efectividad del tratamiento.

Abstract

The aim of this study was to determine if a modification made to the traditional treatments for panic disorder (PD) proved to be effective in adjusting to the cultural and economic characteristics of patients in the southern Andean Region of Colombia. A quasi-experimental model was used, measurements were taken before and after treatment and follow-ups took place after 1 and 2 years; the sample was made up of 82 people (47 women and 35 men, with an average age of 34 and 29 years respectively). Results showed a reduction of PD clinical symptoms after the treatment (d> 0.8), the significance in all cases was $p <0.001$ and changes maintained throughout the follow up period. In conclusion, it is possible to draw the treatment closer to the socio-cultural characteristics of patients to whom it is directed and the number of sessions could be reduced maintaining the effectiveness of the treatment.

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Citar como:

Chicaiza, N. . (2018). Analysis of a brief cognitive behavioral therapy for panic disorder. ***Revista Iberoamericana de Psicología issn-l:2027-1786, 11*** (2), 51-60. Obtenido de: https://revistas.iberoamericana.edu.co/index.php/ripsicologia/article/view/1331-4445-1-SM DOI

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ANÁLISIS DE UN TRATAMIENTO COGNITIVO CONDUCTUAL ABREVIADO PARA EL TRASTORNO DE PÁNICO

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Revista Iberoamericana de **Psicología**
ISSN-L: 2027-1786

Introduction

Symptoms such as dizziness, paresthesia, tachycardia, feeling as if one were choking, derealization, among others, are so intense during a panic attack that patients believe they are undergoing a situation of imminent danger, death or loss of mental control (American Psychiatric Association (APA), 2013). Patients who present these symptoms often go to hospital emergency rooms where an adequate diagnosis is, unfortunately, not performed, not only causing a greater expense to the health systems but also running the risk of worsening the quality of life of those who are affected by this disorder. National Institute of Mental Health (NIMH) (2014).

Between 1.5 and 3.5% of the population suffer a panic disorder and one third of this people also show signs of agoraphobia (APA) (2013). According to the Economic Commission for Latin America and the Caribbean (ECLAC) (2016), this region reached a population of 265 million people in 2016, so it can be estimated that between 3,975,000 and 9,275,000 people suffer PD. In Colombia an annual prevalence of 3.7% is estimated Ministerio de Salud y Protección Social (2015), which means that approximately 1'434,888 people might suffer from this disorder every year in the country.

According to Chisholm, and others (2016), patients affected by anxiety disorders in the United States spend to US $ 51.5 billion yearly, amount that is distributed as follows: US $ 27.810 billion (54%) in non-psychiatric medical treatment costs, US $ 15,965 billion (31%) in psychiatric treatment costs, US $ 5 billion (10%) in indirect costs in the workplace, US $ 1.545 billion (3%) in mortality costs, and US $ 1.030 billion (2%) correspond to pharmaceutical prescription costs. The expenditure per patient reaches US $ 2,342 per year.

In Latin America the Pan American Health Organization (PAHO) (2013) reports annual expenditures of US $ 88.7 billion in medical bills for patients with anxiety. However, this amount only refers to data reported by public health systems and does not include data from private mental health professionals, so this amount is expected to be higher. As for costs of psychological treatments, no data were found.

According to Posada (2013), in Colombia a patient who suffers from anxiety, and who could access cutting-edge psychological and pharmacological therapy, might spend approximately US$ 1,420 per year. However, he clarifies that, given the lack of staff and the lack of information on modern treatments, not even 7% of those affected receive adequate multidisciplinary treatment.

The APA (2013) reports that PD is chronic, listing 60% of patients with sporadic relapses, and 20% maintaining symptoms of high intensity and frequency for the rest of their lives. In addition, they are prone to suffer from coronary illnesses and their tendency to commit suicide is twice as high as the rest of the population.

PD treatments were developed mostly during the 80's and 90's by teams in the United States and Europe, and they are a proof of the effectiveness of psychological treatments that combine cognitive restructuring with exposure to feared stimuli or to situations that require managing or handling the symptoms (Pompoli, et al., 2016; Sánchez, Alcázar, Marín, & Gómez, 2010). Traditional treatment protocols for PD are applied in approximately 16 sessions which are spread over approximately 4 months (Cuijpers, et al., 2013; Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). Cognitive Behavioral Therapy (CBT) is effective for the treatment of PD in the short, medium and long term (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012; Pompoli, et al., 2016; Sánchez, Alcázar, Marín, & Gómez, 2010). However, approximately 35% of the patients do not finish their treatment (Boswell, et al., 2013), according to Titov, and others (2013) and White, and others (2013), treatment costs and the fact that patients do not experience improvement during the first month cause them to quit therapy.

Mental health professionals are scarce in Latin America, and so are the medical centers for people with emotional disorders PAHO (2013) and Atun, and others (2015). In this region most of the population attends health systems that either provide a small number of psychological sessions or do not provide any psychotherapeutic support at all (Atun, et al., 2015; Cotlear, et al., 2015).

To this date, Latin America suffers serious problems in regard to the public health system. Because of this, countless people are not

receiving an adequate treatment for their anxiety problems PAHO (2013), Cotlear and others (2015), and the few who are receiving cutting-edge medical and psychological treatment do so because they pay for private healthcare González and others (2016). In addition, it has been reported that the personnel qualified to address psychological problems is insufficient considering the demands for this service made at health institution (PAHO, 2013).

For the aforementioned reasons, in some cases Latin American patients who are affected by PD never initiate treatment and, in others, are forced to quit it, whereupon the disorder becomes chronic, leading to consequences such as unemployment, academic problems, divorce, agoraphobia, difficulties in interpersonal relationships, etc., -the latter being a universal phenomenon which proves the chronicity of PD, APA (2013). In addition, costs associated with therapy, such as transportation to clinics, become an over-cost that also contribute to the abandonment of the therapy (González, et al., 2016; PAHO, 2013).

In relation to this, Gallego, Gerardus, Van der Kooij, & Mees (2011), point out the importance of making adjustments to the treatments before applying them in culturally diverse countries. However, there are no treatment adaptations to the cultural and economic realities of Latin America (Sánchez, Alcázar, Marín, & Gómez, 2010; Pompoli, et al., 2016).

In regards to the attempts of reducing the number of sessions and the duration of the treatment, it has been reported by Kenardy, and others (2003) that a reduced version of CBT (of 6 sessions reinforced with the assistance of a computer program [CBT6 CA]), is not significantly different from traditional 12 CBT sessions (CBT 12). What's more, Dow, and others (2007) found that the CBT12 is more effective than the abbreviated version CBT6, but still emphasizes that these results do not contradict the use of brief treatments for PD. As far as proposals go, Angelosante, Pincus, Whitton, Cheron, & Pian (2009) developed an intensive treatment for adolescents with PD; while Marchand, Roberge, Primiano, & Germain (2009) show the effectiveness of CBT in 7 sessions for adults; Gallo, Chan, Buzzella, Whitton, & Pincus (2012), in turn, have demonstrated the effectiveness of an 8-day intensive version of TCC for teens; Gallo, Cooper-Vince, Hardway, Pincus, & Comer (2014) continued to demonstrate the effectiveness of intensive psychotherapy for adolescents; meanwhile, Teng, and others (2015) showed the effectiveness of a weekend intervention for people with panic and post-traumatic stress. However, these researches are just attempts to reduce the number of sessions and were not culturally adaptated to other human groups different from the United States or Europe.

Considering what has been said so far, it is necessary that the treatments are adapted to the socio-economic and cultural needs of the patients in the Latin American region. These adaptations will not only allow a reduction on the number of sessions but, consequently, a reduction on the direct and indirect costs of psychological therapy (PAHO, 2013; Atun, et al., 2015; Cotlear, et al., 2015).

It was precisely in this context of need that the Brief Treatment for Panic Disorder (BTPD) had been designed. Besides reducing the sessions to 8, therapeutic exercises are carried out since the first session in order to control the symptoms. The modifications in this method not only seek to streamline the treatment, but also to maintain the effectiveness of traditional protocols, thus facilitating the patients' adherence to the treatment.

Consequently, the aim of the present research was to determine the clinical and statistical effectiveness of the BTPD after adapting it to the socio-cultural and economic characteristics of the patients from the southern Andean Region of Colombia, as well as to determine its effects depending on gender.

Method

Designvvv

This was a quasi-experimental research (since the selection of the participants was not random) and with case-only design with repeated measures Forshaw, Upton, & Jones (2014). In order to identify the level of PD symptoms in participants, measurements were taken before starting the treatment (dependent variable (DV) of the study). These measurements were then provided with Cognitive Behavior Therapy with adjustments (BTPD) for the southern Andean Region of Colombia (constituting the independent variable (IV) of the study). After the treatment, two measurements were taken: one after 1 year, and another one after 2 years.

Participants

The sample was selected in the city of Pasto (southwest of Colombia) in collaboration with various institutions that provide health services (IPS, for their name in Spanish), as well as several private psychological clinics.

It was difficult to count with a high number of participants for various reasons: on the one hand, this was one of the first researches on this topic in the region and, due to the difficulties locating a high number of PD patients who were willing to participate in the research, it was difficult to carry out any type of probability sampling. Therefore, a non-probability sampling technique called opportunity convenience sampling was carried out (Varkeviser, Pathmanathan, & Brownlee, 2011), which gathers subjects with specific characteristics (in this case, people with PD) but they are not randomly chosen. On the other hand, the participants to be included in the sample had to meet the diagnostic criteria for PD (with or without agoraphobia) according to the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (American Psychiatric Association (APA), 2013). In order to comply with this criteria the Panic Disorder Severity Scale (PDSS) (Shear, et al., 1997) was applied, which has demonstrated that it is possible to differentiate patients who suffer from PD from those who do not (with $p \leq 0.001$ (Shear, et al., 1997). Finally, the sample was made up of 82 people (See Table 1).

Tabla 1 Sample Characteristics

	n	%	Age		Provenence		Educational Level		
			X	S	Rural n	Urban n	High School n	Technical n	University n
Women	47	57	34	12.4	5	57	48	1	1
Men	35	43	29	14	3	17	21	6	5
Total	82	100	31	13	8	74	69	7	6

Note: n = number of subjects, % Percent, X = Mean, S = standard deviation.

At this point it is worth mentioning the extraneous variables (EV) that would have affected the results of this study, but that were successfully controlled, since they are related to the medical status of the patients. These were: the presence of medical diseases (differential diagnosis) and patients who had not received psychiatric medication six months before, or during, the treatment. In order to control these, the clinical history of each participant was reviewed. The presence

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of Major Depressive Disorder (MDD) was not considered an EV in this research since recent investigations show that it doesn't disturb the effectiveness of CBT (Allen, et al., 2010; Emmrich, et al., 2012).

Considering the small number of participants, it needs to be said that this is an exploratory investigation and that a more representative sample of population with anxiety can eventually be gathered in the city of Pasto in the long term.

Subjects who agreed to be part of this study were informed about the characteristics of the treatment they would receive and then signed a consent form that stated their willingness to participate (this form also stated that anonymity would be ensured).

It is important to mention that there was no physical or emotional risk for those who accepted to be part of the investigation and that no support was received in terms of funding, logistics, nor access to databases.

Instruments

The instruments used for this study were selected because they had been previously used in several researches on PD and so were considered classical instruments to measure it (Kenardy, et al., 2003), Dow, and others (2007) Sánchez, Alcázar, Marín and Gómez (2010), Bergström, and others (2010), and because of their psychometric qualities, such as validity and reliability. These were applied before starting treatment, at the end of it, and also in the follow-ups (which took place 12 and 24 months after the ending the treatment):

Panic Disorder Severity Scale (PDSS) (Shear, et al., 1997):

A structured interview to assess the seven dimensions of PD and other related symptoms, frequency and intensity, anticipatory anxiety, avoidance of feelings and situations, interference in work and social relationships. This scale has the following psychometric properties (Shear, et al., 1997): convergent and discriminant validity ($p \leq 0.001$); inter-rater reliability ($p \leq 0.001$); internal consistency (Cronbach = 0.65). In addition, its reported temporal stability (test-retest) is (r= 0.81) (Sánchez-Arribas, Chorot, Valiente, & Sandín, 2015)

Beck Anxiety Inventory (BAI) (Beck, Epstein, Brown, & Steer, 1988):

This test has proven to have good psychometric properties for the detection and monitoring of PD, (Leyfer, Ruberg, & Woodruff-Borden, 2006; Comeche, Díaz, & Vallejo, 1995); report the following psychometric properties (See Table 2):

Table 2 Psychometric properties of the BAI

Validity (Convergent - Divergent)	Correlation
Beck Depression Inventory (BDI)	0.48
Revised Hamilton Rating Scale for Depression (RHRSD)	0.25
The Hamilton Anxiety Rating Scale (HARS)	0.51
Cognition Checklist - Depression (CCL-D)	0.22
Cognition Chellist - Anxiety, CCL-	0.51
Hopelessness Scale (HS)	0.15

Source: the authors

The validity of the values above imply that this instrument is able to discriminate between anxiety and depression (according to the authors cited by Comeche, Díaz, & Vallejo (1995). In addition, its reported temporal stability (test–retest) is (r=0.67); and its internal consistency is 0.92 (Cronbach's alpha).

Fear Questionnaire (FQ) (Marks & Mathews, 1979):

This questionnaire assesses the degree of avoidance and/or fear of social situations (social phobia subscale), agoraphobia (agoraphobia subscale) and fear to injuries or blood (blood injury phobia subscale). Comeche, Díaz, & Vallejo (1995) report the following psychometric properties which demonstrate its stability in time (test–restest) (see Table 3).

Tabla 3 Psychometric properties of the FQ

Reliability	
Scales-subscales	test – retest
Specific phobia	0.79
Agoraphobia	0.96
Blood and lesions	0.82
Social Phobia	0.82
Global Phobia	0.82
Anxiety	0.82
Depression	0.82

Source: the authors

When displaying low internal correlations (-0.10 to 0.44) FQ authors (cited by Comeche, Díaz, & Vallejo (1995) interpret this finding as indicating that each scale measures different phobic disorders.

State trait anxiety inventory (STAI) (Spielberger & Díaz-Guerrero, 1975):

In order to assess anxiety as a trait, two subscales were used, each consisting of 20 items. For the purposes of the present study, the Trait Anxiety scale (T) was used. Amor, Echeburúa, de Corral, Zubizarreta, & Sarasua (2002) reported the following reliability data which demonstrate its stability in time (Test–retest) and its internal consistency (See Table 4).

Table 4. Psychometric properties of the STAI

Test-Re test		internal consistency
STAI-T	STAI-S	0.83
0.81	0.4	

Source: the authors

The convergent validity with other anxiety scales ranges between 0.58 and 0.79 (Amor, Echeburúa, de Corral, Zubizarreta, & Sarasua, 2002). Body Sensations Questionnaire and the Agoraphobic Cognitions Questionnaire (ACQ & BSQ), (Chambless, Caputo, Bright, & Gallagher, 1984) (*see Table 5):*

The BSQ was used to assess anxiety about physical and sensory stimuli, while the ACQ was used to assess anticipatory cognitions in social situations or health problems. The validity of the AQ is obtained by comparing it to the validity of the BSQ, the authors interpreted the values of the test, claiming that they got different information about the same problem.

Table 5. Psychometric properties of the ACQ

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Reliability	
Internal	test – retest
0.8	0.86
Validity	
ACQ- BSQ	r biserial
0.34 (n=95) - 0.67 (n=50)	0.79

Source: the authors

The psychometric properties of the ACQ, in terms of its temporary stability (test-retest) and its internal consistency (Chambless, Caputo, Bright, & Gallagher, 1984) are shown in Table 6.

Table 6. Psychometric properties of the BSQ

Reliability	
Internal	test – retest
0.88	0.67
Discriminant Validity (Agoraphobic ≠ Not agoraphobic)	
r biserial	0.68

Source: the authors

Procedure:

Once the participants agreed to be part of this study, instruments were applied before starting the treatment in order to make a previous assessment. Clinical intervention (treatment) began immediately after this, due to the difficulties finding the participants. The same instruments were re-applied to the participants at the end of the treatment (post measurement), as well as 12 and 24 months after having finished the treatment (follow-up phase).

Treatment

The BTPD implemented in this research was based on the therapeutic elements considered crucial in the psychological treatment of PD (Rodriguez, 2014; Botella & Ballester, 1997; Craske & Barlow, 2007; Manfro, Heldt, Cordioli, & Otto, 2008). Even though teaching emotional self-control techniques to patients is also a crucial element, patients were not taught these during the first sessions. The redesign of the treatment and its implementation were developed by the researcher of this study, consequently this BTPD consists of 8 sessions of one hour each, delivered once a week. The topics addressed in each one session were the following:

During the first session info-therapy was carried out, emphasizing on how the panic attacks (PA) do not have serious implications on health (as death or insanity). Then, an analysis of the environmental reasons that could have caused the PA took place -this analysis depended of course on the patient's specific situation. This was followed by a lesson on anti-hyperventilation breathing, abbreviated muscular relaxation and control of alarmist thinking (thoughts about death or insanity). Finally, the session closed with a review about the proper performance of the techniques that had been taught, and corrections and feedback were given if necessary. It is worth mentioning that the teachings of these self-control techniques are one of the main differences between the PCTAP and previous psycho-therapeutic approaches.

During the second session a review of the previously taught control techniques took place (anti-hyperventilation and abbreviated muscular relaxation exercises), followed by a hierarchical exposure to the specific physical and environmental stimuli that the subject in question avoids or fears. The latter constitutes the beginning of the desensitization of corporal sensations, such as accelerated heartbeat and breathing.

During the third session the desensitization of corporal stimuli continued, in accordance to the established hierarchy. His included specifications on the detailed hierarchy of physical and environmental stimuli, with self-exposure from the patient. Finally, instruction of contrast of alarmist thinking through cognitive therapy was carried out.

During the fourth, fifth and sixth sessions, desensitization with physical and environmental stimuli continued. Some self-exposure exercises (behavioral tasks) were assigned for the patient to try in his/her everyday environment. After these self-exposure exercises were carried out, an analysis of the results took place, with an emphasis on fears done through cognitive therapy considering the reality of the happenings.

During the seventh session, an analysis of the patient's motivational elements (for instance, future plans) took place, and so did an analysis of the behavioral or educational skills that the patient needs in order to execute those plans.

Finally, during the eighth session, a contrast was done between the patient's initial and current state, emphasizing on the physical and cognitive changes that have or had been produced. This was followed by the identification of the tools needed for anxiety management (learned during the BTPD). Additionally, motivational components and/or personal goals of the patient were registered, as well as the educational assistance and habit acquisition needed for him/her to complete the goals.

One day after having finished the treatment, the instruments for post-measurement were applied.

Statistical analysis

Firstly, Kolmogorov-Smirnov's tests showed that all variables proceeded from a normally distributed population ($p>0.05$). Secondly, the variance homogeneity criterion was executed in all the variables of the study, as was confirmed by Levene's test ($p>0.05$). Thirdly, the data were found at an interval level, since standard scores were applied (Baremos) instead of the direct ones. In addition, the instruments used for this research supported the psychometric qualities as well as the parametric statistical treatment of the data distribution in the level interval (Amor, Echeburúa, de Corral, Zubizarreta, & Sarasua, 2002; Comeche, Díaz, & Vallejo, 1995; Beck, Epstein, Brown, & Steer, 1988; Chambless, Caputo, Bright, & Gallagher, 1984; Shear, et al., 1997). The data from the dependent variable (PD) and anxiety disorders in general come from a normally distributed population (American Psychiatric Association (APA), 2013).

A T test was run on the gathered data, not only due to the aforementioned information, but also keeping in mind that the purpose was to measure the differences between the pre and post-treatment. Since Cohen's quotient allows to analyze the effects of the BTPD -independently from the sample size (Bologna, 2015) it is possible to say that this research also analyzed the extent of its effect.

Results

It was found that the BTPD significantly reduced the physical and cognitive symptoms in PD patients. This reduction remained 12 months and 24 months after having finished the treatment (periods when the follow-ups took place). The significance in all cases was p<0.001 (see Table 7).

Based on the scales and instruments (such as the PDSS [Panic Disorder Severity Scale] and the BAI [Beck Anxiety Inventory]) used to evaluate the symptoms of PD (according to the DSMV), it was found that the symptoms of PD decreased significantly (p <0.001), revealing the positive effect of the BTPD:

The Fear Questionnaire (FQ) revealed a significant decrease (p <0.001) of the fears regarding social situations, agoraphobia, injuries and bleeding. Physical symptoms also decreased significantly (p <0.001) according to the BSQ, and so did the cognitive symptoms according to the ACQ. The STAI also revealed a significant decrease (p <0.001) of the trait anxiety (r).

In regards to the calculation of the effect size (d Cohen), after the implementation of the BTPD there was an increased size effect (d>0.80) when comparing post-treatment scores (B), follow-ups after 12months (C), and after 24 months (D) of having finished the treatment. These results can be seen in Table 7 (in the 'Comparisons with Pre-Treatment' column), and they indicate that the BTPD had a high effect, from a clinical point of view. It is worth mentioning that no changes took place during the follow-up periods (12 and 24 months), which means that the clinical effect remained (Iraurgi, 2009; Morales, 2012).

Tabla 7.Comparisons by student (t) and effect size calculation - Coefficient Cohen (d).

Rumzents	Gender	Measurement time Pre-treatment (A) After treatment (B) Follow-up 12 months (C) Follow-up 24 Months (D)	M	SD	Medition Time and Hypothesis and comparison	t Calculated and significance (*=P<0,001)	Effect size calculation (comparisons with pre-treatment)	
							Measurements compared	d (Cohen)
Panic Disorder Severity Scale (PDSS)	Men	A	2.2	0.8	NA	NA	NA	NA
		B	0.3	0.3	A> B	14,122*	A y B	3,2
		C	0.3	0.3	A>C	14,451*	A y C	3,4
		D	0.2	0.2	A>D	15,137*	A y D	3,5
	Women	A	2.3	0.6	NA	NA	NA	NA
		B	0.4	0.3	A> B	17,162*	A y B	3,8
		C	0.4	0.3	A>C	17,225*	A y C	3,8
		D	0.4	0.3	A>D	17,360*	A y D	3,9
Beck Anxiety Inventory (BAI)	Men	A	19.8	5.4	NA	NA	NA	NA
		B	4.8	2.4	A> B	17,684*	A y B	3,6
		C	3.7	1.9	A>C	18,092*	A y C	4,0
		D	3.4	1.7	A>D	18,371*	A y D	4,1
	Women	A	22.3	5.9	NA	NA	NA	NA
		B	5.3	3.2	A> B	19,627*	A y B	3,6
		C	4.4	2.6	A>C	21,335*	A y C	3,9
		D	4.2	2.5	A>D	20,909*	A y D	4,0
Fear Questionnaire Agoraphobia (FQ-AG)	Men	A	21.8	1.8	NA	NA	NA	NA
		B	12.0	2.0	A> B	94,736*	A y B	5,1
		C	9.3	2.0	A>C	102,884*	A y C	6,5
		D	8.6	2.0	A>D	101,116*	A y D	6,9
	Women	A	21.8	0.4	NA	NA	NA	NA
		B	12.5	1.3	A> B	49,344*	A y B	9,5
		C	11.7	1.4	A>C	52,999*	A y C	10,2
		D	11.5	1.3	A>D	55,177*	A y D	10,5
Fear Questionnaire - Social Phobia (FQ – SP)	Men	A	20.3	2.9	NA	NA	NA	NA
		B	10.6	3.0	A> B	118,206*	A y B	3,3
		C	8.0	3.0	A>C	102,223*	A y C	4,2
		D	7.3	2.9	A>D	94,973*	A y D	4,4
	Women	A	20.7	0.4	NA	NA	NA	NA
		B	11.4	1.2	A> B	55,318*	A y B	10,5
		C	10.6	1.2	A>C	58,878*	A y C	11,2
		D	10.3	1.2	A>D	61,113*	A y D	11,6

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Fear Questionnaire – Blood Injury (FQ – BI)	Men	A	21.9	2.0	NA	NA	NA	NA
		B	12.1	2.1	A> B	112,656*	A y B	4,7
		C	9.4	2.2	A>C	100,907*	A y C	5,9
		D	8.8	2.3	A>D	95,355*	A y D	6,1
		A	21.9	0.4	NA	NA	NA	NA
		B	12.7	1.4	A> B	45,411*	A y B	8,8
		C	11.8	1.5	A>C	49,022*	A y C	9,5
		D	11.6	1.5	A>D	50,630*	A y D	9,7
State-Trait Anxiety Inventory- Trait (STAI)	Men	A	86.5	4.4	NA	NA	NA	NA
		B	8.9	3.3	A> B	91,407*	A y B	19,8
		C	7.2	2.5	A>C	101,310*	A y C	22,1
		D	7.0	2.5	A>D	101,278*	A y D	22,1
	Women	A	86.9	4.9	NA	NA	NA	NA
		B	10.9	4.6	A> B	81,287*	A y B	16,0
		C	9.2	3.8	A>C	86,575*	A y C	17,7
		D	8.7	3.5	A>D	86,077*	A y D	18,3
Body sensations Questionnaire (BSQ)	Men	A	3.4	0.5	NA	NA	NA	NA
		B	2.1	0.5	A> B	31,299*	A y B	2,7
		C	2.0	0.5	A>C	32,148*	A y C	2,8
		D	2.0	0.5	A>D	32,074*	A y D	2,8
	Women	A	3.8	0.5	NA	NA	NA	NA
		B	2.4	0.5	A> B	104,311*	A y B	3,1
		C	2.2	0.5	A>C	38,016*	A y C	3,4
		D	2.2	0.5	A>D	38,023*	A y D	3,4
Agoraphobic cognitions questionnaire (ACQ)	Men	A	3.0	0.3	NA	NA	NA	NA
		B	1.9	0.3	A> B	71,736*	A y B	3,7
		C	1.9	0.3	A>C	75,825*	A y C	3,9
		D	1.9	0.3	A>D	77,545*	A y D	3,9
	Women	A	3.1	0.3	NA	NA	NA	NA
		B	2.2	0.3	A> B	70,387*	A y B	3,0
		C	2.2	0.3	A>C	72,468*	A y C	3,2
		D	2.2	0.3	A>D	75,002*	A y D	3,2

Note: The sample was made up of a total of 82 people (47 women (57%) and 35 men (43%)).

BAI = Beck Anxiety Questionnaire; **PDSS** = Panic Disorder Severity Scale; **FQ-AG** = Fear Questionnaire – Agoraphobic Questionnaire; **FQ SP** = Fear Questionnaire - Social Phobia; **FQ - BI** = Fear Questionnaire - Blood Injury; **STAI** = State Trait Anxiety Inventory; **BSQ** = Body Sensation Questionnaire; **ACQ** = Agoraphobic Cognitions Questionnaire.

A = Pre-treatment measurement; **B** = Post-treatment measurement; **C** = 12 months follow-up measurement; **D** = 24 months follow-up measurement.

M = Medium (Average); **Sd** = Standard deviation, **t** = calculated t student.

NA = Non-applicable comparison hypothesis A (pre-treatment) with **A** (pre-treatment), therefore t score is not calculated, nor is neither the statistical significance nor the Cohen coefficient (d).

Discussion

The aim of this research was to determine the effectiveness of the Brief Treatment for Panic Disorder (BTPD) - specifically the version adapted to the socio-economic characteristics of the patients from the southern Andean region of Colombia- in the management of Panic Disorders (PD). Considering the characteristics of the sample (financial difficulties and urgency to reduce symptoms), this adaptation, among other things, consisted of: a reduction of the number of sessions from 16 to 8; teaching patients some techniques to control the symptoms (for instance, breathing and alarmist thinking management techniques, starting since the first session); as well as other techniques to increase the patients' sensation of handling difficult situations (for example, exposure therapy; during the following sessions). These, and other, variables explain the adherence to the treatment and its success (Gallo, Cooper-Vince, Hardway, Pincus, & Comer, 2014; Teng, et al., 2015).

After analyzing the results of the study, it was possible to confirm that the BTPD had produced meaningful statistical changes (P <0.01) in the PD patients who made up the sample. Since the first session it had also been demonstrated that it was possible to teach patients to control their physical and cognitive symptoms -an advance that helps them restore quickly the quality of life. In terms of the effect size, great variations between the pre and post treatment measurements were found (d> 0.8; see Table 7, column "comparisons with Pre - treatment"), indicating that the patients' symptoms were reduced after the BTPD, whereas low variations during the monitoring period indicated that the therapeutic effects were maintained (Morales, 2012).

In general, this adaptation aimed to make the treatment much more practical, effective and economical for patients (since these changes led to a reduction of the direct and indirect costs of the treatment, in terms of money and time), while keeping the beneficial psychotherapeutic effects of traditional protocols. Consequently, the

adaptation and changes led to an increase of the accessibility to the patients as well as an increase of their adherence to the treatment.

Similar researches, Kenardy, and others (2003), Angelosante, Pincus, Whitton, Cheron, & Pian (2009), Marchand, Roberge, Primiano, & Germain (2009), and Gallo, Chan, Buzzella, Whitton, & Pincus (2012), showed that brief treatments for PD can benefit more people, not only because they work on smaller budgets, but because they are easier to follow and implement. More recently, Gallo, Cooper-Vince, Hardway, Pincus, & Comer (2014), and Teng, and others (2015) have reported that, when compared to traditional individual treatments, BTPD's not only reduce the patients' symptoms, but also increase the patients' participation levels in psychotherapeutic activities, allowing for more acceptance and adherence to behavioral interventions. Furthermore, Chowdhary, and others (2014), Gallego, Gerardus, Van der Kooij, & Mees (2011), and Salvador-Cruz, Cuetos-Vega, & Aguillón (2016) had already identified the importance and the success of making adaptations of treatments that were to be applied in different cultures to the one they were originally designed for.

Considering all the aforementioned information, the current research contributes to clinical practice with an efficient and practical method to control PD. This, in turn, allows saving in care services at the implementation location, whose human resources are scarce to cater for the current demand. Analyzing the cost - benefit suggested by Nas (2016), the BTPD reduced costs in terms of professional fees and transportation for patients. Consequently, it is important to reiterate that reducing the number of sessions; patients are also saving their financial resources.

As for the limitations, a matter to consider is that:

The Latin American region has very diverse groups of people. For example, from the cultural point of view, the differences between the inhabitants of the coast and the inhabitants of the Andes are huge, despite sharing similar economic characteristics. This diversity raises the possibility of new lines of research, for example, ones that measure the impact of the BTPD's in the aforementioned subgroups. Other lines could be expand the scope and test the effectiveness of the BTPD's in regions with similar economic characteristics, such as some regions in Africa, Asia and other Latin American countries that have populations that lack the financial resources to undergo traditional treatments.

In the process of researching to find effective and abbreviated methods for PD, this investigation constitutes a first step to measure the viability of the BTPD in a natural context. Further researches could focus on comparing patients who receive this abbreviated method to those who follow the traditional method, and even compare the results with a control group on a waiting list – a control groups is an important element that could have been added to this study. Moreover, it could also be possible to compare the effectiveness of the BTPD to the one of medications used in the case of anxiety.

In conclusion, a Brief Cognitive Behavioral Therapy for Panic Disorders, adapted to the socio-economic needs of a population from a specific region, proved to be effective as it was able to instruct patients in the techniques required to control their symptoms parting from the first sessions.

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