



Universidades Lusíada

Moreira, Paulo
Cardoso, Ana M. G.
Cancela, Diana M. G.
Oliveira, João Tiago

Beliefs About Psychological Problems Inventory (BAPPI) : development and psychometric properties

<https://www.ijpsy.com/volumen21/num3/589.html>
<http://hdl.handle.net/11067/6367>

Metadados

Data de Publicação	2021
Resumo	The clients' belief systems are components of Effective Therapy Relationships. Thus, it is desirable to include clients' beliefs about their psychological problems on systematic assessment protocols underlying the process of systematic treatment selection and of tailoring the treatment to the person. However, assessment instruments which specifically capture clients' beliefs about their psychological problems are scarce. The objective of the studies presented was to evaluate the psychometric pro...
Editor	Asociación de Análisis del Comportamiento & Madrid Institute of Contextual Psychology
Palavras Chave	Beliefs, Treatment selection, Causes of psychological problems, Psychometrics, BAPPI
Tipo	article
Revisão de Pares	yes
Coleções	[ILID-CIPD] Artigos

Esta página foi gerada automaticamente em 2024-04-25T03:59:22Z com informação proveniente do Repositório

Theoretical and Review Articles // Artículos teóricos y de revisión

Jesús Gil Roales-Nieto 261-288 Tensión individualismo-gregarismo en la configuración psicológica del ser humano I: apuntes sobre el surgimiento y variaciones históricas del yo. [*Individualism-Gregariousness Tension in the Psychological Configuration of the Human Being, I: Notes on the Emergence and Historical Variations of the Self.*]

P Adu 289-304 Advanced Technological Support in Psychotherapy.
T Jurcik
K Aduo-Adjei

Research Articles // Artículos de investigación

Asunción Utande 307-321 Mejora del razonamiento analógico en ancianos. [*Improving Analog Reasoning in the Elderly.*]
Francisco J. Molina Cobos
L Jorge Ruiz Sánchez
Zaida Callejón
Carmen Luciano

Marija Abeltina 323-345 Mental Health and Work Engagement as Predictors of Different Burnout Conceptualizations in a Multi-Occupational Sample from Latvia.
Malgozata Rascevska
Ieva Stokenberg

Oleksandr Kolesnichenko 347-361 Typology of Personal Characteristics of Cadets Who Use Psychoactive Substances.
Yanina Matsegora
Ihor Prykhodko
Serhii Shandruk
Ieva Stokenberg
Stanislav Larionov
Svitlana Izbash
Lesia Vavryk
Iryna Khanenko
Kateryna Tishechkina

Jitka Vaculíková 363-378 Coping Strategies and Academic Motivation: The Mediating Effect of Achievement Emotions.

Paulo AS Moreira 379-398 Beliefs About Psychological Problems Inventory (BAPPI): Development and Psychometric Properties.
Ana Mafalda Guedes Cardoso
Diana Manuela Gomes Cancela
João Tiago Oliveira

Nastaran Otared 399-411 A Group-based Online Acceptance and Commitment Therapy Treatment for Depression, Anxiety Symptoms and Quality of Life in Healthcare Workers during COVID-19 Pandemic: A Randomized Controlled Trial.
Nasim Ghahraman Moharrampour
Babak Vojoudi
Amir Jahanian Najafabadi

Matheus Beber 413-431 Is this a Joke? Altering the derivation of humor behavior.
Carmen Luciano
Jorge Ruiz Sánchez
Francisco Cabello

Notes and Editorial Information // Avisos e información editorial

Editorial Office 435-436 Normas de publicación-*Instructions to Authors*.
Editorial Office 437 Cobertura e indexación de IJP&PT. [*IJP&PT Abstracting and Indexing.*]

ISSN 1577-7057

© 2021 Asociación de Análisis del Comportamiento, Madrid, España

IJP&PT

INTERNATIONAL JOURNAL OF PSYCHOLOGY & PSYCHOLOGICAL THERAPY

EDITOR

Francisco Javier Molina Cobos
Universidad de Almería, España

REVIEWING EDITORS

Mónica Hernández López
Universidad de Jaén
España

Francisco Ruiz Jiménez
Fundación Universitaria Konrad Lorenz
Colombia

ASSOCIATE EDITORS

Dermot Barnes-Holmes
Universiteit Gent
Belgique-België

J. Francisco Morales
UNED-Madrid
España

Mauricio Papini
Christian Texas University
USA

Miguel Ángel Vallejo Pareja
UNED-Madrid
España

Kelly Wilson
University of Mississippi
USA

ASSISTANT EDITORS

Adolfo J. Cangas Díaz
Emilio Moreno San Pedro

Universidad de Almería, España
Universidad de Huelva, España

INTERNATIONAL JOURNAL OF PSYCHOLOGY & PSYCHOLOGICAL THERAPY
<https://www.ijpsy.com>

Volume 21, number 3, October 1, 2021
Volumen 21, número 3, 1 Octubre, 2021

Theoretical and Review Articles // Artículos teóricos y de revisión

- Tensión individualismo-gregarismo en la configuración psicológica del ser humano I: apuntes sobre el surgimiento y las variaciones históricas del yo. [*Individualism-Gregariousness Tension in the Psychological Configuration of the Human Being, I: Notes on the Emergence and Historical Variations of the Self.*]..... 261
Jesús Gil Roales-Nieto
- Advanced Technological Support in Psychotherapy 289
P Adu, T Jurcik, K Aduo-Adjei.

Research Articles // Artículos de investigación

- Mejora del razonamiento analógico en ancianos. [*Improving Analog Reasoning in the Elderly.*] 307
Asunción Utande, Francisco J. Molina Cobos, L Jorge Ruiz Sánchez, Zaida Callejón, Carmen Luciano.
- Mental Health and Work Engagement as Predictors of Different Burnout Conceptualizations in a Multi-Occupational Sample from Latvia 323
Marija Abeltina, Malgozata Rascevska, Ieva Stokenberg.
- Typology of Personal Characteristics of Cadets Who Use Psychoactive Substances..... 347
Oleksandr Kolesnichenko, Yanina Matsegora, Ihor Prykhodko, Serhii Shandruk, Stanislav Larionov, Svitlana Izbash, Lesia Vavryk, Iryna Khanenko, Yulia Andrusyshyn, Kateryna Tishechkina.
- Coping Strategies and Academic Motivation: The Mediating Effect of Achievement Emotions 363
Jitka Vaculíková
- Beliefs About Psychological Problems Inventory (BAPPI): Development and Psychometric Properties 379
Paulo AS Moreira, Ana Mafalda Guedes Cardoso, Diana Manuela Gomes Cancela, João Tiago Oliveira.
- A Group-based Online Acceptance and Commitment Therapy Treatment for Depression, Anxiety Symptoms and Quality of Life in Healthcare Workers During COVID-19 Pandemic: A Randomized Controlled Trial 399
Nastaran Otared, Nasim Ghahraman Moharrampour, Babak Vojoudi, Amir Jahanian Najafabadi
- Is this a Joke? The Impact of Context in the Emergence of Humor 413
Matheus Bebbber, Carmen Luciano, Jorge Ruiz Sánchez, Francisco Cabello.

Notes and Editorial Information // Avisos e Información Editorial

- Normas de publicación [*Instructions to Authors*] 435
Cobertura e indexación de *IJP&PT* [*IJP&PT Abstracting and Indexing*] 437

© 2021 AAC, ISSN 1577-7057

Publicada por/Published by: **Asociación de Análisis del Comportamiento (AAC, Madrid, España) & Madrid Institute of Contextual Psychology (MICPSY, Madrid, España)**

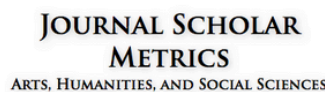
Depósito legal: GR-1332-2001

Printed on / Impreso en: **Copias Centro, Madrid (España)**

STATEMENTS, OPINIONS, AND RESULTS OF STUDIES PUBLISHED IN *IJP&PT* ARE THOSE OF THE AUTHORS AND DO NOT REFLECT THE POLICY OR POSITION OF THE EDITOR, EDITORIAL COUNCIL OF *IJP&PT*, AND AAC; REGARDING ACCURACY OR RELIABILITY, NO GUARANTEE CAN BE OFFERED OTHER THAN THAT THE PROVIDED BY THE AUTHORS THEMSELVES.

LAS DECLARACIONES, OPINIONES Y RESULTADOS DE LOS ESTUDIOS PUBLICADOS EN *IJP&PT* PERTENECEN EN EXCLUSIVA A LOS AUTORES, Y NO REFLEJAN LA POLÍTICA O POSICIÓN DEL EDITOR, DEL EQUIPO EDITORIAL, NI DEL CONSEJO EDITORIAL DE *IJP&PT*, NI DE LA AAC; EN CUANTO A SU EXACTITUD O FIABILIDAD, NO PUEDE OFRECERSE NINGUNA OTRA GARANTÍA QUE NO SEA LA APORTADA POR LOS PROPIOS AUTORES.

IJP&PT IS INCLUDED IN THE FOLLOWING INDEXING AND DOCUMENTATION CENTERS



Beliefs About Psychological Problems Inventory (BAPPI): Development and Psychometric Properties

Paulo AS Moreira,* Ana Mafalda Guedes Cardoso, Diana Manuela Gomes Cancela

Universidade Lusíada Norte, Porto, Portugal

João Tiago Oliveira

Universidade do Minho, Portugal

ABSTRACT

The clients' belief systems are components of Effective Therapy Relationships. Thus, it is desirable to include clients' beliefs about their psychological problems on systematic assessment protocols underlying the process of systematic treatment selection and of tailoring the treatment to the person. However, assessment instruments which specifically capture clients' beliefs about their psychological problems are scarce. The objective of the studies presented was to evaluate the psychometric properties of the *Beliefs About Psychological Problems Inventory* (BAPPI), an assessment instrument of the clients' beliefs about their psychological problems. Study 1 (Exploratory Factor Analysis) involved 200 participants, and Study 2 (Confirmatory Factor Analysis and other validity studies), involved 545 participants. Results revealed that the BAPPI presents a stable factorial structure of six dimensions (Psychodynamic, Humanistic, Biomedical, Cognitive-Behavioral, Systemic, and Eclectic/Integrative). Altogether, analyses of items, internal consistency, reliability, and external validity revealed that the BAPPI is a valid assessment instrument for use in mental health research and practice, especially in the process of systematic treatment selection and, therefore, of matching/tailoring the treatment to the client's characteristics.

Key words: beliefs; treatment selection; causes of psychological problems; psychometrics; BAPPI.

How to cite this paper: Moreira PAS, Cardoso AMG, Cancela DMG, & Oliveira JT (2021). Beliefs About Psychological Problems Inventory (BAPPI): Development and Psychometric Properties. *International Journal of Psychology & Psychological Therapy*, 21, 3, 379-398.

Novelty and Significance

What is already known about the topic?

- Individuals' beliefs about their psychological problems predict health (including mental health) processes and outcomes.
- Beliefs about psychological problems are relevant to inform the therapeutic process.
- Instruments to measure beliefs about psychological problems consistent with the major psychological and psychotherapeutic models are scarce.

What this paper adds?

- This paper describes an instrument (BAPPI) that assesses beliefs about psychological problems consistent with the assumptions of the major psychological/psychotherapy models.
- BAPPI presents good psychometric properties, and may be used in research and practice.

The understanding of how to promote therapeutic effectiveness using tailoring the treatment also to the clients' transdiagnostic characteristics became one of the major challenges of contemporary Mental Health treatments, especially of psychotherapy. Clients' characteristics are at the core of psychotherapy, as it impacts several treatment processes and outcomes (Boswell, Gallagher, Sauer-Zavala, Bullis, Gorman, Shear, Woods, & Barlow, 2013; Imel, Baer, Martino, Ball, & Carroll, 2011; Webb, DeRubeis, & Barber, 2010).

Consistently, major scientific and institutional organizations, such as the APA's Task Force on Evidence-based Psychotherapy Relationships, are making efforts to identify 1) the components of effective therapy relationships, and 2) the effective processes leading to effective tailoring of the treatment to the person (APA, 2006; Norcross & Wampold,

* Correspondence: Paulo Moreira, Centro de Investigação em Psicologia para o Desenvolvimento (CIPD), Instituto de Psicologia e de Ciências da Educação, Instituto de Psicologia e Ciências da Educação, Universidade Lusíada-Norte, Porto, Portugal. E-mail: paulomoreira@por.ulusiada.pt

2011). Belief systems are core components of individuals' psychosocial organizations, including behavior change; they play a fundamental role in the way clients mobilize their psychological resources to behavioral change. Assessing clients' representations and beliefs is of great importance to psychotherapy as they are very informative about a) clients' characteristics that need to be considered in the systematic treatment selection process, b) clients' meanings systems about his/her developmental and functioning patterns, resulting from previous spontaneous conceptualizations about his/her functioning (including the spontaneous attempts of self-understanding and self-help), and c) the psychological environment where behavioral change is to occur. Clients' beliefs are mechanisms underlying the patterns of clients' responses to the therapeutic interaction.

Despite the importance of the clients' systems of beliefs about the causes of their psychological problems (also called preferences, attributions, etc.) for an effective adaptation of the treatment person (Bahar, Beck, & Butler, 2012; Moffitt, Haynes, & Mohr, 2015; Norcross & Wampold, 2011; Swift & Callahan, 2009; Swift, Callahan, & Vollmer, 2011), assessment measures of this phenomenon that are both reliable and user-friendly (so they can be included in systematic assessment protocols) are still scarce. The objective of this study was to test the psychometric properties of the *Beliefs About Psychological Problems Inventory* (BAPPI) an assessment instrument of the clients' beliefs about their psychological problems.

Beliefs refer to mental constructions about reality, differentiated throughout peoples' experiences, which orient/determine individuals' behaviors (Frosch, Kimmel, & Volpp, 2008). Beliefs are higher-order representations about reality (including about the self the others, and the broader reality), and play an important guiding role in the individuals' argentic mechanisms. Belief systems have been traditionally studied by different disciplines (from social to clinical psychology) and have been approached by different research traditions. Consequently, different labels are referring to the same phenomenon, depending on the discipline or the research approach they come from. The concept of belief is perhaps the mostly broader construct referring to the individuals' socio-cognitive organizations about reality. However, the individuals' representations about reality present several specificities, mostly related to the object of the representation. Different labels have been adopted to capture different beliefs at several levels. Examples include attributions, perceptions, values, opinions, self-concepts, or standards.

Regardless of its labels, or the research traditions they derive from, mental representations are amongst the main determinants of behavior, the reason why is considered as one of the main organizers of personality, from normal to abnormal personality (Arntz, Dreessen, Schouten, & Weertman, 2004; Asendorpf, 2007; Cloninger, Svrakic, & Przybeck, 1993; Josefsson, Jokela, Cloninger, Hintsanen, Salo, Hintsanen, Pulki-Raback, & Keltikangas-Jarvinen, 2013; Oltmanns & Turkheimer, 2009).

The importance of individuals' beliefs system for describing and predicting human behavior is highlighted by frameworks coming from multiple scientific disciplines, reflecting its importance to understanding multiple functioning domains. Examples of frameworks describing the mechanisms throughout which systems beliefs influence behaviors to include George Kelly's Theory of Personal Constructs (Kelly, 1955), Social Learning Theory (Bandura, 2005), Cognitive-behavioral psychotherapies (Murguia & Díaz, 2015), Beck's Cognitive therapy (DeRubeis, Webb, Tang, & Beck, 2011), Ellis' Rational, Emotive and Behavioral therapy (Dryden, David, & Ellis), Cloninger's biopsychological model of Personality (Cloninger, Svrakic, & Przybeck, 1993; Josefsson *et alia*, 2013), or more recent models of identity, such as the Theory of Narrative Identity (McAdams & Pals, 2006; McLean, Pasupathi, & Pals, 2007; Pasupathi & Hoyt, 2009). These frameworks all converge on the assumption that beliefs are crucial components of agency mechanisms, and, therefore, they shape individuals' ways of thinking, feeling, and behaving.

Besides, meta-theories (including self-determination, bioecological theory, or the transtheoretical model and stages of change) emphasize the importance of individuals' beliefs systems in describing transactional processes between individual and context (Bronfenbrenner & Bronfenbrenner, 2009; Prochaska, Redding, & Evers, 2008; Wang & Eccles, 2012). Belief systems, as "psychological environment" are a more proximal "environment" for individual experiences than the objective environment itself (e.g. Ames, 1992; Muryama & Elliot, 2009; Wang & Eccles, 2012).

The clients' understanding of the causes of the psychological problems is of great importance for treatment (Lee & Bishop, 2001) as it constitutes the more proximal meaning environment underlying the clients' subjective experience of its psychosocial functioning. Similarly to what happens to therapists theoretical orientation (which refers to a rational used as a plausible explanation for a given condition, as well as their underlying mechanisms, from their genesis to its evolution) (Ogunfowora & Drapeau, 2008), clients have also some type of understanding about their experiences, and, therefore, they have beliefs about their psychological problems. As a consequence, all actions aimed to exert an impact on human behavior, including therapeutic interventions, need to consider the individual differences in beliefs system (Ingram & Siegle, 2011).

Beliefs about psychological problems and mental health are personal and idiosyncratic knowledge that influence general patterns of thought, affect, and behavior towards treatment, including beliefs about psychological problems and therapeutic modalities (Duncan, Miller, Wampold, & Hubble, 2010; Furnham, 2009; Furnham, Pereira, & Rawles, 2001; Jorm, 2000; Marshall, Jones, Ramchandani, Stein, & Bass, 2007; McLeod, 2011; McLeod, 2012; Nakane, Jorm, Yoshioka, Christensen, Nakane, & Griffiths, 2005; Riedel-Heller, Matschinger, & Angermeyer, 2005; Wagner, Bystritsky, Russo, Craske, Sherbourne, Stein, & Roy-Byrne, 2005). Clients' beliefs about their psychological functioning (including the causes of their psychological problems) are available to clients' processing of their reality, which becomes salient when it comes to the meaning-making processes. As confirmed by the APA Task Force on Evidence-Based Practice (2006) and by several meta-analyses, the transdiagnostic client's characteristic of preferences or beliefs about psychological problems and psychotherapeutic modalities is an element of effective therapy relationships, both at treatment processes and outcomes levels (e.g. Norcross & Wampold, 2011; Swift & Callahan, 2009; Swift, Callahan, & Vollmer, 2011).

Nunnally (1961) conducted one of the seminal works on the clients' beliefs about their psychological problems and concluded that clients have a variety of beliefs about the causes of their psychological problems, ranging from organic, personal history to environmental and contextual factors. These results were confirmed by other studies, which consistently identified as the self-perceived main causes were intrapsychic and psychological/relational more than biological and genetic factors (e.g. Angermeyer & Matschinger, 1999; Whittle, 1996). Besides, individuals preferred approaches emphasized self-understanding. For example, in a study conducted by Mellot, DeStefano, French-Bloomfield, and Kavcic (1999) the majority of the individuals identified themselves with approaches to behavioral change more based on self-understanding rather than those relying on the changing of contextual characteristics or organic treatments.

As stated by Miller (1991), the clients' belief systems allow for the identification of the clients' understandings about the causes of their problems and the clients' tendencies and preferences about the treatment.

There has increasingly been a shift from a therapist-centric to a client-centered approach to research and practice to treatment adherence and competence (Boswell *et alia*, 2013). Clients' beliefs are important not only as discrete variables but also because they are part of clients' complex and dynamic meaning-making and narrative processes

involved in psychotherapy from various theoretical orientations (Moreira, Beutler, & Gonçalves, 2008; Moreira & Gonçalves, 2010; Moreira, Gonçalves, & Matias, 2011). If at the end of the XX century there was a raising of interest about the clients' transdiagnostic characteristics, the last decade was characterized by an exponential raising of interest by the specific transdiagnostic characteristics of cognitive representations, including preferences and beliefs about psychological problems and mental health treatments (McLeod, 2012).

Several decades after the first studies about the clients' beliefs about psychological problems and treatment modalities, there is a robust body of research showing that the majority of patients do have different beliefs about different treatments and that they have preferences for one treatment over the others, even in randomized control studies (Leykin, DeRubeis, Gallop, Amsterdam, Shelton & Hollon, 2007).

Besides the fact that there are individual differences in the clients' beliefs about their psychological problems and the preferred treatment modality, the importance of the clients' beliefs system relies on the fact that they have a significant impact on treatment both processes and outcomes (Bystritsky, Wagner, Russo, Stein, Sherbourne, Craske & Roy-Byrne, 2005; Dietrich, Beck, Bujantugs, Kenzine, Matschinger & Angermeyer, 2004; Lee, & Bishop, 2001; Wagner, Bystritsky, Russo, Craske, Sherbourne, Stein, & Roy-Byrne, 2005).

Clients' beliefs and representations about the etiology of mental disorders and the perceived causes of psychological problems have a strong impact in all the treatment phases and processes, from professional help-seeking to treatment dropout (Chen & Mak, 2008). Firstly, clients' disclosure and help-seeking for psychological problems are strongly influenced by his/her beliefs about mental health disorders and cultural values (Agorastos, Demiralay, & Huber, 2014; Brohan, Henderson, Wheat, Malcolm, Clement, Barley, Slade, & Thornicroft, 2012; Couture, & Penn, 2003; Jorm, 2000; Morgan, Reavley, & Jorm, 2013; Nakane *et alia*, 2005; Wong, Tran, Kim, Kerne, & Calfa, 2010).

Secondly, prevention and early intervention for mental health are significantly dependent on the clients' system of beliefs about their psychological functioning (Kelly, Jorm, & Wright, 2007; Nakane Jorm, Yoshioka, Christensen, Nakane, & Griffiths, 2005; Reavley, & Jorm, 2012), seeking for help in crises is strongly influenced by the similarity between client's and therapist's attributions and attitudes (Jack & Williams, 1991 cited in Whittle, 1996).

Thirdly, the belief system predicts the client's perceptions about the therapist's credibility and the clients' satisfaction with therapy (Atkinson, Worthington, Dana, & Good, 1991). Therapeutic relations are more productive when the therapist and client share the same values system (Hutchins, 1984). Clients' representations and preferences about treatment impact on therapeutic alliance and research increasingly demonstrate the clinical benefits of assessing and considering them for the process of treatment selection (e.g. Iacoviello, McCarthy, Barrett, Rynn, Gallop, & Barber, 2007).

Fourthly, the beliefs system is one of the most important dimensions underlying clients' adherence to the different treatment modalities, from pharmacotherapy to psychotherapy (Chakraborty, Avasthi, Kumar, & Grover, 2009; Sher, McGinn, Sirey, & Meyers, 2014), and there is less dropout from therapy when patients receive treatment consistent with their preferences (Swift & Callahan, 2009). Finally, also stigmatization about mental problems is highly dependent on individuals' system of beliefs about psychological problems (Dietrich *et alia*, 2004; Ebnetter, Latner, & O'Brien, 2011; Harré, 2001; Jorm, 2000; Jorm & Griffiths, 2008; Morgan, Reavley, & Jorm, 2013; Nakane *et alia*, 2005; Reavley, & Jorm, 2011; Reavley & Jorm, 2012, 2014).

The clients' beliefs about their psychological problems exert a significant impact on therapeutic outcomes (Furnham, Pereira, & Rawles, 2001; Hunt, Sullivan, Chavira,

Stein, Craske, Golinelli, Roy-Ryner, & Sherbourne, 2013; Jorm, Nakane, Christensen, Yoshioka, Griffiths, & Wata, 2005; Reavley & Jorm, 2012). The matching between the clients' beliefs and preferences about treatment and the selected therapeutic model has a positive impact on therapeutic outcomes (Glass, Arnkoff, & Shapiro, 2001), with better results being observed among clients' who receive treatment consistent with his/her beliefs and preferences (Pistrang & Barker, 1992; Swift & Callahan, 2009). Clients' belief systems and preferences about treatment are a moderator of the therapeutic outcomes in different psychopathological conditions, and different modalities (Constantino, Arnkoff, Glass, Ametrano, & Smith, 2011; Kocsis, Leon, Markowitz, Manber, Arnoff, Klein, & Thase, 2009).

In sum, clients' beliefs about their psychological functioning, including treatment preference, have been systematically found to affect treatment satisfaction, completion, and clinical outcomes (Lindhiem, Bennett, Trentacosta, & McLearn, 2014). Therefore, there is a need to consider and to include clients' beliefs in the clients' general assessment and the diagnostic assessment (Adewuya & Makanjuola, 2008; Bhar, Beck, & Butler, 2012), in the process of matching the therapeutic plan to each client's characteristics (Castonguay & Beutler, 2006; Corrigan & Salzer, 2003; Kwan, Dimidjian, & Rizvi, 2010; Lee & Bishop, 2001; Nguyen, Bertoni, Charvat, Gheytanchi, & Beutler, 2007; Preference Collaborative Review Group, 2008; Sidani, Epstein, & Miranda, 2006), and in the process of professional training (Boswell *et alia*, 2013).

Previous research on clients' beliefs about their psychological problems relied firstly on assessments based on qualitative data and then moved to quantitative data. Examples of existing quantitative assessment instruments used in previous research include the *Treatment Expectancies Questionnaire* (TEQ; Caine, Wijesinghe, & Wood, 1973), the *Causes of Illness Inventory* (CII; Foulks, Persons, & Merkel, 1986), *Causal Belief Questionnaire* (CQB; Whittle, 1996), the *Opinion about Psychological Problems* (OPP; Pistrang & Barker, 1992), or the *Questionnaire of Reasons for Depression* (QRD; Addis, Truax, & Jacobson, 1995). The *Treatment Expectancies Questionnaire* (TEQ; Craine, Wijesinghe, & Wood, 1973) captures the clients' for two treatment modalities: biological approach, including individual behavioral therapy and group psychodynamic psychotherapy. The *Causes of Illness Inventory* (CII; Foulks, Persons, & Merkel, 1986) assessed two main approaches: explanations consistent with the medical model (which constituted the dimension 1), and non-medical explanations (the second dimension, which included other explanations, but that did not differentiate amongst the different non-medical theoretical models). The *Causal Belief Questionnaire* (CQB; Whittle, 1996) assessed four main factors: psychosocial variables (education), biological variables, structural conditions (cultural beliefs), and stress and recent life events. The *Opinion about Psychological Problems* (OPP; Pistrang & Barker, 1992) represented a significant advance on the methodology used for assessing the beliefs about psychological problems for two main reasons. On the one hand, it considered the client's beliefs at two levels: beliefs about the causes of the psychological problems and beliefs about the treatment preferences. On the other hand, it captured beliefs consistent with the major psychotherapeutic model approaches. However, and because of the very complex proposed factorial structure of this instrument, no study is known that describes this instruments' factorial structure and psychometric properties. The *Questionnaire of Reasons for Depression* (QRD; Addis, Truax, & Jacobson, 1995) has received empirical support for its factorial structure composed of the dimensions of Achievement, interpersonal conflict, Intimacy, Existential, Childhood, Physical, and Relationship. Additionally, it has been recently used for the standardization of national populations' studies (Thwaites, Dagnan, Huey, & Addis, 2004).

In sum, the available assessment instruments on the clients' beliefs about their psychological problems present substantive limitations, including a) the very limited number of dimensions assessed (e.g. medical VS non-medical, such as the CII; or biological/individual VS psychodynamic/group, such as the TEQ); b) the mixture between the nature of causes consistent (with some been consistent with major psychotherapy models, but other dimensions referring to other reasons (such as education) –this is the case of the CQB; c) the inexistence of studies attesting for its psychometrics validity (such as the OPP); or d) despite the empirical validity for its factorial structure, some questionnaires are disorder-specific (such as the QRD). Finally, some instruments used in very recent published studies (such as the case of the study developed by Adewuya, and Makanjuola in 2008) assess dimensions such as superstition and other dimensions that are specific to African populations, and less consistent with the culture of Occidental populations.

The objective of this study was to analyze the psychometric properties of the BAPPI, a short instrument (23 items) that assesses the individuals' beliefs about their psychological problems.

METHOD

Participants

To test the psychometrics of the BAPPI we conducted two studies. In the first one, we performed the Exploratory Factor analysis, and in the second study, we performed the Confirmatory Factor Analysis and the other validity evidence analyses.

In study 1, 200 individuals from the North of Portugal participated (155 female, 77.5%), age 17-64 years ($M= 28.39$; $SD= 9.34$). This was a convenience sampling technique using the snowball technique. In terms of the participant's Education, 14 participants (7%) had the 9th school grade or less; 102 (51%) had completed the 12th school year; and 83 (41.5%) had completed a University degree.

In study 2, 545 individuals participated (160 female, 29.36%), age between 16-82 years ($M= 32.22$; $SD= 12.01$). Concerning Education, 113 (20.7%) had 7 years of schooling or less; 224 (41.10%) had completed secondary school; and 205 (about 37.6%) had some university degree. The sample included 151 (28%) psychology students, and 373 (68%) not studying psychology. Therefore, the majority of the sample was not familiarized with the concepts addressed by this investigation.

We included in the questionnaire items to capture information regarding the participants' previous experiences with Mental Health services. 164 (30%) individuals had received professional help from a psychologist before, 100 (18%) had received professional help from a psychiatrist and 122 (22%) had received professional help from the generalist physician only. Only 47 (9%) individuals had received a psychotherapeutic treatment before, and 174 (32%) had used drugs for psychological problems (anxiolytics, antidepressants).

Instruments and Measures

Beliefs About Psychological Problems Inventory (BAPPI). The BAPPI was developed with the aim of overcoming the limitations of the existing instruments assessing the Beliefs about the psychological problems. In this process we followed the Guidelines for the development and testing of psychological tests (American Educational Research Association, 1999), and which are obviously, consistent with other eminent proposals (e.g. Carretero Dios & Meléndez Pérez, 2007). The BAPPI captures individual's understanding of their psychological problems, consistent with the six main theoretical approaches to mental health problems treatment: Biomedical, Psychodynamic, Humanistic,

Systemic, Cognitive-Behavioral, and Eclectic. Consistently, careful synthesis of the main assumptions of these theoretical approaches was gathered from an exhaustive review of several sources. An important question to us was how to guarantee fidelity between the proposed assumptions of each theoretical model and those assumed by their respective eminent representatives and advocates. To test our preliminary assumptions of each therapeutic model, we selected some of the major handbooks of models of psychotherapy and therapy approaches. These handbooks included chapters for each theoretical orientation written by eminent authors and major representatives (acknowledged by their peers) of their respective theoretical approaches. The main sources for the identification of the representative assumptions were as follows. For Psychodynamic Psychotherapy, we used the chapters of Karon and Widener (1995), Binder, Strupp, and Henry (1995), Luborsky, O'Reily Landry, and Arlow (2010), and Douglas (2010). For Systemic psychotherapies, we used the chapters by Clarkin and Carpenter (1995). For Eclectic / Integrative psychotherapies we used the chapters by Goldfried and Norcross (1995), Beutler, Consoli, and Williams (1995), Beutler, Harwood, and Caldwell (2010), Beutler, Consoli, and Lane (2005), Prochaska and DiClemente (2005) and Norcross and Beutler (2010). For Systemic psychotherapies, we used the chapter by Raskin, Rogers, and Witty (2010). For Cognitive-Behavioral psychotherapies, we used the chapters by Meichenbaum (1995), Dryden, David and Ellis (2011), DeRubeis, Webb, Tang, and Beck (2011), Ellis (2010), Wilson (2010), and Beck and Weishaar (2000). After having selected these resources as the main sources of information for the main assumptions of each therapeutic model, and based on them, the first set of items was generated with the main of capturing the main assumptions of the respective therapeutic models. This preliminary set of items (70 items) were then analyzed by pairs of judges (who were experts on psychotherapeutic models), who rated each item in terms of the degree to which it captured the basic assumptions of each therapeutic model. Only the items that were consensually considered as capturing the basic assumptions of each model were kept and included in the next step (48 items filled this criterion). This set of items (48) was rated by other judges blind to the item selection, who asked the question "what therapeutic model this item refers to?" The objective of this procedure was to test the degree to which there was consensus between the two groups of judges about the theoretical affiliation of the diverse items. From this process, 25 items were consensually considered as being representative of the main assumptions of their respective theoretical models. Then, these 25 items were answered by a group of potential participants in the study, using the think-aloud method. In this process, two items were excluded, meaning that we had 23 items for the first version of the questionnaire. Answers to items are in a Likert-scale format, with values 0= totally disagree, 1=agree; 2=not agree nor disagree; 3=agree; and 4=Totally agree. The Biomedical scale comprises 3 items, the Cognitive-Behavioral 4 items, the Psychodynamic scale by 2 items; the Humanist scale by 4 items; the Systemic scale by 5 items; and the Eclectic/Integration scale is composed of 5 items.

Opinion about Psychological Problems (Pistrang & Barker, 1992). This scale assesses the clients' perceptions about the causes (47 items) and the treatment (47 items) for psychological problems. Items are distributed in 7 scales: Psychodynamic, Humanist/interpersonal, Behavioral, Cognitive, Organic, Socioeconomic, and Naïve.

Perceptions about help-seeking for psychological problems. We were also interested in understanding how the individuals' beliefs about their psychological problems were associated with a) their previous experience with Mental Health services and b) their perception about the perceived relevance of receiving help for mental health problems. Thus, we included additional 5 items capturing these features: "In the past, I received a drug treatment for a psychological problem"; "In the past, I received psychotherapeutic treatment for a psychological problem"; "If I have a friend or a family member with a psychological problem, I will recommend that he/she looks for help from a psychologist"; "If I have a friend or a family member with a psychological problem, I will recommend that he/she looks for help from a psychiatrist"; and "If I have a friend or a family member with a psychological problem, I will recommend that he/she looks for help from a general physician."

Procedure

Data collection was made through the snowball technique. After signing the informed consent, participants filled out the questionnaires and sent them in a closed envelope to the research team. In all cases, participants started by answering to the Socio-demographic questionnaire. However, regarding the order of the questionnaires, 2 different protocols were organized. In Protocol 1, participants answered first to the Opinion About Psychological Problems (OPP) and then to the BAPPI. In Protocol 2 participants answered first to the BAPPI and then to the OPP. Then Protocols were distributed randomly to participants. We have adopted this procedure to control the order of the instruments and the potential bias resulting from a previous exposure to related items in the response to later items. At the end, we obtained a balanced number of participants in each one of the protocols. Participants did not receive compensation to participate in this study.

Data Analysis

Except for the Confirmatory Factor Analysis (which was made using the AMOS, version 18.0), all analyses were performed using the SPSS for Windows, version 17. To test how the items and factors were consistent with the construct, its semantic features, and expected factorial structure, we performed exploratory and confirmatory factor analyses, which differ on the degree of restrictions imposed on the factorial solution (Muñiz, Elosua, & Hambleton, 2013). Firstly, we imposed minimal restrictions on the estimation of the factorial structure the reason why we performed the Exploratory Factor Analysis with the Promax Rotation (because we assumed that the underlying dimensions are correlated). To test the final factorial structure, we performed the Confirmatory Factor Analysis, which allowed us for testing the factorial structure using a combination of different fit indices: the Chi-square (χ^2), the *Root-Mean Square Error Approximation (RMSEA)* (Hu & Bentler, 1999), the *Goodness of Fit Index (GFI)* (Joreskog & Sorbom, 1989), the *Comparative Fit Index (CFI)* (Bentler, 1990), and the *Tucker and Lewis Index (TLI)* (Tucker & Lewis, 1973). Non-significant values of χ^2 are an indicator of a good fit, but in big samples, a combination of other fit indices needs to be considered. Values greater than .90 *GFI* for and .95 for *CFI*, and *TLI* are indicative of good fit (Byrne, 2001), but values higher than .90 for *GFI*, *CFI*, and *TLI* are also considered indicative of good fit but prominent authors (Hu & Bentler, 1999; Ullman & Bentler, 2003). Generally, values less than or equal to .05 for *RMSEA* are indicative of a good fit (Byrne, 2001, 2013). *Maximum Likelihood (ML)* estimation method was used, once the items were consistent with the presupposition of normality required for its use (Byrne, 2001, 2013). Based on the descriptive statistics, on the discrimination indices, and the factor loading of the items, the final items were selected, as suggested (American Educational Research Association, 1999; Lloret Segura, Ferreres Traver, Hernández Baeza, & Tomás Marco, 2014). For the estimation of reliability, the internal consistency of the scales using Cronbach's α was estimated (Carretero Dios & Meléndez Pérez, 2007). Finally, and to test the external evidence validity, we tested the convergent validity of the scale with the scales of the *Opinion About Psychological Problems* (Pistrang & Barker, 1992).

RESULTS

Descriptive statistics of the items are displayed in Table 1. Based on the suggestions made by eminent statisticians, the descriptive is acceptable. For example, according to Nunnally and Bernstein's (1994) proposal, discrimination items need to be higher than .25/.30 in 90% of the cases, which is in line with what was found.

Table 1. Dimensions, Items and indicators of Items' Discrimination.

	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>	Item-total
System_My behaviors are mainly determined by the characteristics of my family	2.15	.96	-.20	-.87	.85
System_What influenced the mostly the way I am were the relations with my family's members	2.41	.91	-.57	-.54	.80
System_My behaviors are mainly determined by the relationships that I have with the members of my family	2.11	.93	-.04	-.69	.78
System_The characteristics of my family are what influenced the most the way I am	2.63	.96	-.58	-.52	.79
System_My family's characteristics are the main responsible for me being the way I am	2.65	.90	-.28	-.66	.33
Ecl/Int_There are several ways for me to succeed in changing my behaviors	2.97	.56	-.89	4.57	.43
Ecl/Int_We understand better the situations and behaviors, when we analyze them from several perspective	3.29	.60	-.36	.14	.57
Ecl/Int_The most of the times, there are several ways to explain peoples' behaviors	2.88	.73	-.66	.67	.68
Ecl/Int_The causes of the psychological problems are different from person to person	2.49	.83	-.57	-.03	.48
Ecl/Int_There are several ways of explaining why people have psychological problems	2.59	.95	-.89	.81	.70
Hum_Once people fulfill their basic needs, they will change or growth	2.82	.78	-.99	1.62	.49
Hum_The direction people give to their lives depend on their decisions	2.40	.98	-.33	-.60	.51
Hum_I am responsible for the decisions I make	1.71	1.04	.14	-.71	.48
Hum_In order to people may change, they need for the context to give them the basic conditions	2.72	1.04	-.56	-.55	.52
Cogn/Beh_If my behaviors had had different consequences, I would be different as a person	2.39	.89	-.54	-.26	.76
Cogn/Beh_If I thought in a different way, I would have different behaviors	3.12	.58	-.17	.56	.40
Cogn/Beh_I would succeed in changing my behaviors if was able to see things differently	2.41	.81	-.53	-.21	.69
Cogn/beh_One can't change a behavior without changing the perspective about it	2.41	.80	-.50	-.19	.62
Psychod_If I knew why I have certain behaviors, I would succeed in changing them	2.46	.76	-.40	-.50	.93
Psychod_If I was aware of what is influencing my behaviors, I would succeed in changing them	2.48	.77	-.53	.29	.94
Biomed_My brain is the main responsible for me having the behaviors I have	2.58	.80	-.76	.70	.09
Biomed_The peoples' psychological problems are mainly due to their brain' functioning	2.21	1.07	-.39	-.73	.10
Biomed_People can change their psychological problems if they take medication	2.48	.90	-.45	-.22	.10

Note: Item-total= Item-total correlation dimension.

To obtain a factorial structure of the scale, we performed an Exploratory Factor Analysis (EFA), with minimal restrictions. A factorial structure of 6 factors was found (Systemic, Eclectic/Integrative, Psychodynamic, Humanist; Cognitive-Behavioral and Biomedical). This structure was consistent with the theoretically and semantically hypothesized structure (Table 2). Factor 1 groups items from the systemic approach; Factor 2 groups items from the Eclectic/integrative approach; Factor 3 group items from the Humanistic approach; Factor 4 groups the items from the Cognitive-Behavioral approach; Factor 5 groups the items of the Psychodynamic approach; and Factor 6 groups

Table 2. Results from the factorial exploratory analysis of the BAPPI.

Item	Factor					
	1	2	3	4	5	6
My behaviors are mainly determined by the characteristics of my family	0.860	0.035	0.054	0.061	0.023	0.064
What influenced mostly the way I am were the relations with my family's members	0.846	0.070	0.044	0.085	-0.009	-0.010
My behaviors are mainly determined by the relationships that I have with the members of my family	0.812	-0.083	0.050	0.054	0.086	0.039
The characteristics of my family are what influenced the most the way I am	0.793	0.188	0.075	0.016	0.039	0.024
My family's characteristics are the main responsible for me being the way I am	0.728	0.057	-0.031	0.172	0.093	0.234
There are several ways for me to succeed in changing my behaviors	-0.036	0.739	0.078	0.031	0.119	0.004
We understand better the situations and behaviors, when we analyze them from several perspectives	0.053	0.716	0.062	0.170	0.023	-0.060
The most of the times, there are several ways to explain peoples' behaviors	0.097	0.677	0.040	0.181	0.134	0.021
The causes of the psychological problems are different from person to person	0.089	0.670	0.048	0.046	0.072	0.017
There are several ways of explaining why people have psychological problems	0.005	0.660	0.113	0.351	0.028	-0.034
Once people fulfill their basic needs, they will change or growth	0.044	-0.022	0.787	0.014	0.064	-0.006
The direction people give to their lives depends on their decisions	0.107	0.047	0.785	0.111	0.021	-0.010
I am the main responsible for me being the way I am	-0.072	0.083	0.625	0.121	-0.083	0.149
In order to people may change, they need for the context to give them the basic conditions	0.098	0.229	0.532	-0.050	0.143	0.079
If my behaviors had had different consequences, I would be different as a person	0.154	0.050	-0.018	0.735	0.142	0.205
If I thought in a different way, I would have different behaviors	0.169	0.364	0.002	0.625	-0.040	0.028
I would succeed in changing my behaviors if was able to see things differently	0.042	0.242	0.124	0.623	0.361	0.058
One can't change a behavior without changing the perspective about things	0.036	0.248	0.202	0.499	0.092	-0.177
If I knew why I have certain behaviors, I would succeed in changing them	0.081	0.174	0.052	0.126	0.892	0.076
If I was aware of what is influencing my behaviors, I would succeed in changing them	0.097	0.141	0.058	0.198	0.877	0.079
My brain is the main responsible for me having the behaviors I have	0.151	-0.091	0.181	0.102	0.034	0.773
The peoples' psychological problems are mainly due to their brain's functioning	0.082	-0.017	0.205	-0.070	0.001	0.768
People can change their psychological problems if they take medication	0.030	0.051	-0.134	0.068	0.107	0.658
<i>Eigenvalue</i>	3.424	2.832	2.105	1.905	1.826	1.804
<i>Variance</i>	14.88%	12.31%	9.15%	8.28%	7.94%	7.84%

Notes: Extraction Method: Exploratory Factor Analysis; Rotation Method: Promax, with Kaiser Normalization (Factorloadings > 1.401 are in bold).

the items of the Biomedical approach. All factors had an *Eigenvalue* superior to 1, and all items registered loadings above .40 on their respective factor.

Figure 1 displays the Confirmatory Factor Analysis with standardized parameter estimates. Results confirm the measurement model composed by 23 items. The indices confirm a good fit of the model to the data: $\chi^2= 441.25$, $df= 214$; $\chi^2/df= 2.062$; $CFI= .942$; $GFI= .935$; $TLI= .932$; $RMSEA= .044$). Parameters were significant at $p < .001$.

As an indicator of reliability, we estimated the internal consistency of the scales using the Cronbach's α , which was greater than .70 to all scales, with exception of the Biomedical: $\alpha= .63$ for Biomedical; $\alpha= .86$ for Psychodynamic scale; $\alpha= .79$ for Cognitive-Behavioral; $\alpha= 0.77$ for Eclectic/Integrative; and $\alpha= .75$ for Systemic.

We tested the validity of the BAPPI by estimating the correlations between scales of the BAPPI and the scales of an instrument (the OPP) which was developed to evaluate the same construct. As displayed in Table 3, significant and positive correlations were found between some scales of the different instruments. As expected, some scales were found to positively correlate with their equivalent of the other scale (OPP). This was the case of the BAPPI's Psychodynamic scale which was positively correlated with the OPP's Psychodynamic scale ($r= .216$). The same happened with the BAPPI's and the OPP's Humanistic scales, which were significantly and positively correlated ($r= .218$).

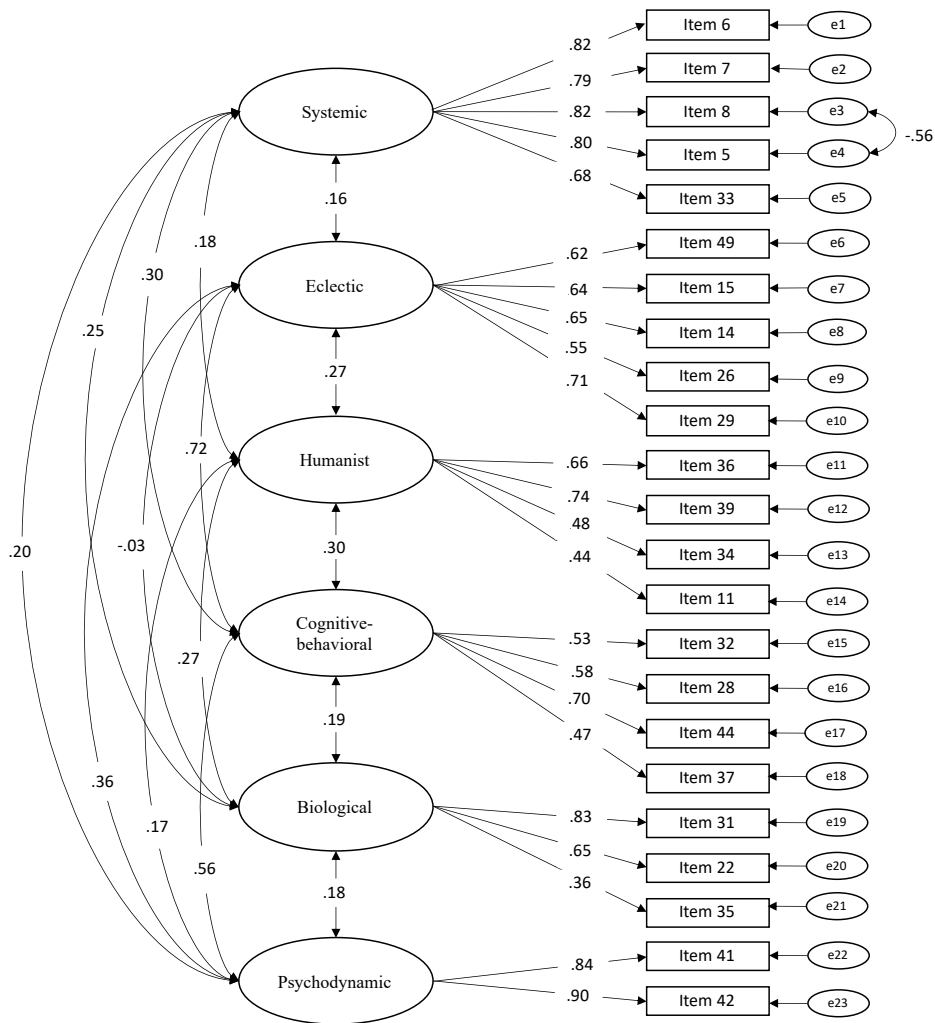


Figure 1. Confirmatory Factor Analysis for the factor structure of the BAPPI with standardized parameter estimates. Systemic; Eclectic/Integrative; Humanist; Cognitive-Behavioral; Biological; Psychodynamic.

Table 3. Correlations between the BAPPI and OPP scales.

BAPPI' s Scales	OPP Psychodynamic	OPP Humistic	OPP Behavioral	OPP Cognitive	OPP Organic	OPP SocioEconomic	OPP Naive
Systemic	-.011	.090	.000	.025	-.084	-.049	.044
Eclectic/Integrative	.120	.173*	.176*	.151*	-.075	-.049	.051
Humanist	.234**	.221**	.218**	.198**	.200**	.235**	.145*
Cognit/Behavioral	.017	.116	.113	.098	-.086	-.034	.151*
Psychodynamic	.216**	.227**	.185**	.201**	.089	.163*	.133
Biomedic	.020	.028	.007	-.039	-.068	-.217**	-.043

Notes: * = $p < .05$; ** = $p < .01$

DISCUSSION

The objective of this study was to evaluate the psychometric characteristics of the BAPPI, an assessment instrument intended to capture the individuals' beliefs about their psychological problems. We analyzed different indicators of validity, including item analysis, the internal structure of the scale, reliability, and evidence of validity, which we will discuss in the following.

According to Carretero Dios and Meléndez Pérez (2005), the discrimination calculations need to be performed by sub-scale dimension. This means that the estimation of discrimination needs to be performed between the item and its correspondent narrower dimension. Consistently, all the items of the BAPPI registered correlations with their respective dimension higher than .25/.30, which is in line with the suggested (e.g. Nunnally, & Bernstein, 1994).

Exceptions to this tendency were the items of the Biomedical dimension, which required specific analysis of these items' behavior. The correlation of the items with their correspondent dimension is an indicator of the degree to which the items are measuring in the same direction, and, therefore, how the items are representative of that dimension. When this discrimination is performed taking the diverse items together, then an estimation of the reliability of the scale is obtained, such as in the case of Cronbach's α . In the case of this study, Cronbach's α was performed only after the group of items for each sub-scale had been defined, also as suggested for example by Carretero Dios and Meléndez Pérez (2007). The Cronbach's α was greater than .70 for all the scales, with exception of the Biomedical ($\alpha = .63$) which, not being optimal, is still acceptable. Future studies should address this question and try some improvements on these items' discrimination indices.

All items had been previously repeatedly analyzed (as described before) in terms of the semantic and construct criteria. Then the resulting 23 items were all included in the Exploratory Factor Analysis, in which minimal restrictions were imposed. The resulting model was consistent with the semantic and construct expected model and was composed of six oblique factors. The facts that a) the Eigenvalue of each factor was greater than 1 and b) the item loadings were all superior to .40 supported the decision of keeping this 6-factor solution.

To test the stability of the proposed model and to evaluate its adequacy to another set of data, a second study was conducted where the scale was administrated to a different and larger sample. The different indices obtained by the Confirmatory Factor Analysis suggested that this was a model that fit well to the data.

As suggested by several authors, the validity of an instrument cannot be assumed without considering its associations with other constructs. In fact, and considering the dynamic nature of human functioning, a given phenomenon. As a consequence, an indicator of an assessment's validity is how the instrument relates with other (convergent or divergent) constructs (American Educational Research Association, 1999; Carretero Dios & Meléndez Pérez, 2005). In this study, we estimated the associations between the scales of the BAPPI and the scales of the OPP, which assesses the clients' opinions about their psychological problems.

Firstly, and as expected, some scales were found to positively correlate with their equivalent of the other scale (OPP): the BAPPI' Psychodynamic scale which was positively correlated with the OPP's Psychodynamic scale ($r = .216$); the BAPPI's and the OPP's Humanistic scales were significantly and positively correlated ($r = .218$).

Secondly, the BAPPI's Humanist scale was positively correlated with all the OPP's scales. This is an understandable result because the Humanistic approaches emphasize the role of necessary conditions to change to occur, which tend to be shared by the different approaches. Thirdly, the BAPPI's Systemic scale was not correlated with no scale of the OPP. This is because the OPP does not have a scale for the Systemic approach that helps to understand the inexistence of significant association of any of its scales with the BAPPI's Systemic scale. Fourthly, the BAPPI's Cognitive-Behavioral scale does not significantly correlate with the OPP's Behavioral and Cognitive scales. Although it could be expected that such relations would exist, this result suggests that the contemporary understanding of the Cognitive-Behavioral approach (as captured by the BAPPI) present semantic and construct differences about the classic approaches of the Cognitive and Behavioral approaches when taken independently one from another. Taking together, the relationships between the dimensions of the BAPPI and the OPP suggest that, although they present some commonalities, these two instruments are not equivalent.

Information coming from the analyzed indicators suggested that the BAPPI is an instrument with acceptable psychometric properties, and suitable for use in research and clinical practice. Firstly, the range of the dimensions assessed by the BAPPI goes behind the simplistic dichotomy of medical vs non-medical approaches or biological/individual VS psychodynamic/group. Secondly, BAPPI includes only frameworks that have empirical validation. Thirdly, as demonstrated by both the EFA and CFA performed in this study, the BAPPI has a stable factorial structure, which is an advantage over other assessments to which there is no evidence for their structural stability. Fourthly, more than focusing on beliefs regarding specific disorders, it captures beliefs about global psychological problems, which may be an advantage for treatment selection, but also for comparison of findings coming from different studies. Fifth, the dimensions assessed by the BAPPI are consistent with the major frameworks of current psychotherapy science, which makes the BAPPI suitable for use in studies that aim to understand individuals' beliefs about their psychological problems besides the naïve or popular conceptions of Mental Health (which it is still very prevalent in some societies) (Adewuya & Makanjuola, 2008). Sixth, its short form (23 items) facilitates its systematic use in systematic assessment protocols.

The chosen sampling method has implications for the external validity of the findings. Non-probability sampling methods make it difficult to generalize research findings from a sample to the general population because they are characteristically non-random, meaning that is uncertain whether the present study findings would replicate in other Portuguese samples. It is also noteworthy that the study only collected self-report data; a methodological choice that is frequently criticized for introducing bias to data (e.g. social desirability effects).

Future studies need to describe the BAPPI's measurement invariance in different groups, including in populations from other societies, or in clinical samples. Additionally, future studies should describe the associations of the BAPPI's dimensions with other constructs, including with interventions processes and outcomes of the systematic tailoring of the treatment to the clients' characteristics.

In sum, as suggested by this study's results, the BAPPI presents adequate psychometric properties and has the potential of contributing to the advance of research and practice of the systematic efforts of tailoring Mental Health Interventions to the individuals' non-diagnostic characteristics, including to the clients' systems of beliefs

about their psychosocial functioning, which is a current trend on psychotherapy research and practice (Beutler, 2010; Blatt, Zuroff, Hawley & Auerbach, 2010; APA, 2006; Chakraborty, Avasthi, Kumar & Grover, 2009; Coyne, 2014; Nguyen *et alia*, 2007; Norcross & Wampold, 2011)

Future studies need to describe the BAPPI use in clinical populations, including in studies assessing the impact on psychotherapeutic processes and outcomes of the systematic tailoring of the treatment to the clients' characteristics.

REFERENCES

- Addis ME, Truax P, & Jacobson NS (1995). Why do people think they are depressed?: The Reasons For Depression Questionnaire. *Psychotherapy: Theory, Research, Practice, Training*, 32, 476-483. Doi: 10.1037/0033-3204.32.3.476
- Adewuya AO & Makanjuola RO (2008). Lay beliefs regarding causes of mental illness in Nigeria: pattern and correlates. *Social Psychiatry and Psychiatric Epidemiology*, 43(4), 336-341. Doi: 10.1007/s00127-007-0305-x
- Agorastos A, Demiralay C, & Huber CG (2014). Influence of religious aspects and personal beliefs on psychological behavior: focus on anxiety disorders. *Psychology Research and Behavior Management*, 7, 93-101.
- American Educational Research Association (1999). *Standards for educational and psychological testing*. Washington, DC: American Educational Association.
- Ames C (1992). Classrooms: Goals, structures, and student motivation. *Journal of educational psychology*, 84, 261-271. Doi: 10.1037/0022-0663.84.3.261
- Angermeyer MC, Matsching H, & Riedel-Heller SG (1999). Whom to ask for help in case of a mental disorder? Preferences of the lay public. *Social Psychiatry and Psychiatric Epidemiology*, 34, 202-210. Doi: 10.1007/s001270050134
- APA Presidential Task Force on Evidence-Based Practice. (2006). Evidence-based psychology practice. *American Psychologist*, 61, 271-285. Doi: 10.1037/0003-066X.61.4.271.
- Arntz A, Dreesen L, Schouten E, & Weertman A (2004). Beliefs in personality disorders: a test with the Personality Disorder Belief Questionnaire. *Behaviour Research and Therapy*, 42, 1215-1225. Doi: 10.1016/j.brat.2003.08.004
- Asendorpf JB (2007). Editorial: Implicit representations and personality. *International Journal of Psychology*, 42, 145-148. Doi: 10.1080/00207590601066997
- Atkinson DR, Worthington RL, Dana DM, & Good GE (1991). Etiology beliefs, preferences for counseling orientations, and counseling effectiveness. *Journal of Counseling Psychology*, 38, 258-264. Doi: 10.1037/0022-0167.38.3.258.
- Bandura A (2005). The primacy of self-regulation in health promotion. *Applied Psychology*, 54, 245-254.
- Beck AA & Weishaar ME (2000). Cognitive Therapy. In RJ Corsini & D Wedding (2010). *Current Psychotherapies* (9th Ed.) (pp. 279-309). Belmont, CA: Brooks/Cole.
- Beutler LE, Consoli AJ, & Williams RF (1995). Integrative and Eclectic Therapies in practice. In BM Bongar & LE Beutler (Eds.). *Comprehensive Textbook of Psychotherapy: Theory and practice* (pp. 274-292). Oxford textbooks in clinical psychology, Vol. 1. New York: Oxford University Press.
- Beutler LE, Harwood TM, & Caldwell R (2010). Cognitive-behavioral therapy and psychotherapy integration. In KS Dobson (Eds.). *Handbook of Cognitive-behavioral therapies* (3rd ed.) (pp. 138-173). London: Guilford Press
- Beutler LE, Consoli AJ & Lane G (2005). Systematic Treatment Selection and Prescriptive Psychotherapy. In JC Norcross & MR Goldfried (Eds.). *Handbook of Psychotherapy Integration* (3rd ed.) (pp. 121-145). New York: Oxford University Press.
- Bhar SS, Beck AT, & Butler AC (2012). Beliefs and personality disorders: an overview of the personality beliefs questionnaire. *Journal of Clinical Psychology*, 68, 88-100. Doi: 10.1002/jclp.20856
- Binder JL, Strupp HH, & Henry, WP (1995). Psychodynamic psychotherapies in practice: Time-limited dynamic therapy. In BM Bongar & LE Beutler (Eds.). *Comprehensive Textbook of Psychotherapy: Theory and practice* (pp. 48-63). New York: Oxford University Press.
- Boswell JF, Gallagher MW, Sauer-Zavala SE, Bullis J, Gorman JM., Shear MK, Woods S, & Barlow DH (2013). Patient characteristics and variability in adherence and competence in cognitive-behavioral therapy for panic

- disorder. *Journal of Consulting and Clinical Psychology*, 81, 443-454. Doi: 10.1037/a0031437
- Boswell J, Castonguay L, & Pincus A (2009). Trainee theoretical orientation: Profiles and potential predictors. *Journal of Psychotherapy Integration*, 19, 291-312. Doi: 10.1037/a0017068
- Brohan E, Henderson C, Wheat K, Malcolm E, Clement S, Barley EA, Slade M, & Thornicroft G (2012). Systematic review of beliefs, behaviours and influencing factors associated with disclosure of a mental health problem in the workplace. *BMC Psychiatry*, 12, 11. Doi: 10.1186/1471-244X-12-11.
- Bronfenbrenner U & Bronfenbrenner U (2009). *The ecology of human development: Experiments by nature and design*. London: Harvard University Press.
- Byrne BM (2013). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. New York: Routledge.
- Byrne BM (2001). Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument. *International Journal of Testing*, 1, 55-86. Doi: 10.1207/S15327574IJT0101_4
- Bystritsky A, Wagner AW, Russo JE, Stein MB, Sherbourne CD, Craske MG, & Roy-Byrne PP (2005). Assessment of beliefs about psychotropic medication and psychotherapy: development of a measure for patients with anxiety disorders. *General Hospital Psychiatry*, 27, 313-318. Doi: 10.1016/j.genhosppsych.2005.05.005
- Caine TM, Wijesinghe B, & Wood RR (1973). Personality and psychiatric treatment expectancies. *The British Journal of Psychiatry*, 122, 87-88. Doi: 10.1192/bjp.122.1.87
- Carretero Dios H & Meléndez Pérez C (2007). Normas para el desarrollo y revisión de estudios instrumentales: consideraciones sobre la selección de tests en la investigación psicológica. *International Journal of Clinical and Health Psychology*, 7, 863-882.
- Castonguay L & Beutler LE (2006). *Principles of therapeutic change that work*. New York: Oxford University Press.
- Chakraborty K, Avasthi A, Kumar S, & Grover S (2009). Attitudes and beliefs of patients of first episode depression towards antidepressants and their adherence to treatment. *Social Psychiatry and Psychiatric Epidemiology*, 44, 482-488. Doi: 10.1007/s00127-008-0468-0
- Chen S & Mak W (2008). Seeking Professional help: Etiology beliefs about mental illness across cultures. *Journal of Counseling Psychology*, 55, 442 – 450. Doi: 10.1037/a0012898
- Clarkin JF & Carpenter D (1995). Family therapy in historical perspective. In BM Bongar & LE Beutler (Eds.). *Comprehensive Textbook of Psychotherapy: Theory and practice* (pp. 205-227). New York: Oxford University Press.
- Cloninger CR, Svrakic DM, & Przybeck TR (1993). A psychobiological model of temperament and character. *Archives of General Psychiatry*, 50, 975-990. Doi: 10.1001/archpsyc.1993.01820240059008
- Constantino MJ, Arnkoff DB, Glass CR, Ametrano RM, & Smith JZ (2011). Expectations. *Journal of Clinical Psychology*, 67, 184-192. Doi:10.1002/jclp.20754
- Corrigan PW & Salzer MS (2003). The conflict between random assignment and treatment preference: implications for internal validity. *Evaluation and Program Planning*, 26, 109-121.
- Couture S & Penn D (2003). Interpersonal contact and the stigma of mental illness: A review of the literature. *Journal of Mental Health*, 12, 291-305. Doi: 10.1080/09638231000118276
- Coyne JC & Kok RN (2014). Salvaging psychotherapy research: A manifesto. *Journal of Evidence-Based Psychotherapies*, 14, 105-124.
- DeRubeis RJ, Webb CA, Tang TZ, & Beck AT (2011). Cognitive therapy. In KS Dobson (Ed). *Handbook of Cognitive-Behavioral Therapies* 3rd Ed. (pp. 277-316). New York: Guilford.
- Dietrich S, Beck M, Bujantugs B, Kenzine D, Matschinger H, & Angermeyer MC (2004). The relationship between public causal beliefs and social distance toward mentally ill people. *Australian and New Zealand Journal of Psychiatry*, 38, 348-354. Doi: 10.1080/j.1440-1614.2004.01363.x
- Douglas C (2010). Analytical Psychotherapy. In RJ Corsini & D Wedding (2010). *Current Psychotherapies* (9th ed.) (pp. 113-147). Belmont, CA: Brooks/Cole
- Dryde W, David, D & Ellis A (2011). Rational Emotive Behavior Therapy. In KS Dobson (Ed.). *Handbook of Cognitive-Behavioral Therapies* (3rd ed.) (pp. 226-276). New York: Guilford.
- Duncan BL, Miller SD, Wampold BE, & Hubble MA (2010). *The Heart and Soul of Change* (2nd ed.). Washington, DC: American Psychological Association
- Ebneter DS, Latner JD, & O'Brien, KS (2011). Just world beliefs, causal beliefs, and acquaintance: Associations with stigma toward eating disorders and obesity. *Personality and Individual Differences*, 51, 618-622. Doi:

- 10.1016/j.paid.2011.05.029
- Ellis A (2010). Rational Emotive Behavior Therapy. In RJ Corsini & D Wedding (2010). *Current Psychotherapies* (9th Ed.) (pp. 196-234). Belmont, CA: Brooks/Cole.
- Foulks EF, Persons JB, & Merkel RL (1986). The effect of patients' beliefs about their illnesses on compliance in psychotherapy. *The American Journal of Psychiatry*, *143*, 340-344. Doi: 10.1176/ajp.143.3.340
- Frosch DL, Kimmel S, & Volpp K (2008). What role do lay beliefs about hypertension etiology play in perceptions of medication effectiveness? *Health Psychology*, *27*, 320-326. Doi: 10.1037/0278-6133.27.3.320
- Furnham A (2009). Psychiatric and Psychotherapeutic literacy: Attitudes to, and knowledge of, psychotherapy. *International Journal of Social Psychiatry*, *55*, 525-537. Doi: 10.1177/0020764008094428
- Furnham A, Pereira E, & Rawles R (2001). Lay theories of psychotherapy: Perceptions of the efficacy of different 'cures' for specific disorders. *Psychology, Health & Medicine*, *6*, 77-84. Doi: 10.1080/13548500125641
- Glass CR, Arnkoff DB, & Shapiro SJ (2001). Expectations and preferences. *Psychotherapy: Theory, Research, Practice, Training*, *38*, 455-461. Doi: 10.1037/0033-3204.38.4.455
- Goldenberg I, Goldenberg H, & Pelavin EG (2010). Family therapy. In RJ Corsini & D Wedding (2010). *Current Psychotherapies* (9th Ed.) (pp. 417-453). Belmont, CA: Brooks/Cole.
- Goldfried MR & Norcross JC (1995). Integrative and Eclectic therapies in Historical Perspective. In BM Bongar & LE Beutler (Eds.). *Comprehensive Textbook of Psychotherapy: Theory and practice* (pp. 254-273). New York: Oxford University Press.
- Harré JRN (2001). The role of biological and genetic causal beliefs in the stigmatisation of 'mental patients'. *Journal of Mental Health*, *10*, 223-235. Doi: 10.1080/09638230123129
- Hu LT & Bentler PM (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: A Multidisciplinary Journal*, *6*, 1-55.
- Hunt J, Sullivan G, Chavira DA, Stein MB, Craske MG, Golinelli D, Roy-Ryrie PP, & Sherbourne CD (2013). Race and beliefs about mental health treatment among anxious primary care patients. *The Journal of Nervous and Mental Disease*, *201*, 188-195. Doi: 10.1097/NMD.0b013e3182845ad8
- Hutchins DE (1984). Improving the counseling relationship. *The Personnel and Guidance Journal*, *62*, 572-575.
- Iacoviello BM, McCarthy KS, Barrett MS, Rynn M, Gallop R, & Barber JP (2007). Treatment preferences affect the therapeutic alliance: Implications for randomized controlled trials. *Journal of Consulting and Clinical Psychology*, *75*, 194-198. Doi: 10.1037/0022-006X.75.1.194
- Imel ZE, Baer JS, Martino S, Ball SA, & Carroll KM (2011). Mutual influence in therapist competence and adherence to motivational enhancement therapy. *Drug and Alcohol Dependence*, *115*, 229-236. Doi: 10.1016/j.drugalcdep.2010.11.010
- Ingram RE & Siegle GJ (2011). Cognitive Science and the Conceptual Foundations of Cognitive-Behavioral Therapy: Viva la Evolution! In KS Dobson (Ed.). *Handbook of Cognitive-Behavioral Therapies* (3rd Ed.) (pp. 74-93). New York: Guilford.
- Jorm AF (2000). Mental health literacy Public knowledge and beliefs about mental disorders. *The British Journal of Psychiatry*, *177*, 396-401. Doi: 10.1192/bjp.177.5.396
- Jorm AF & Griffiths KM (2008). The public's stigmatizing attitudes towards people with mental disorders: How important are biomedical conceptualizations? *Acta Psychiatrica Scandinavica*, *118*, 315-321. Doi: 10.1111/j.1600-0447.2008.01251.x
- Jorm AF, Nakane Y, Christensen H, Yoshioka K, Griffiths KM, & Wata Y (2005). Public beliefs about treatment and outcome of mental disorders: a comparison of Australia and Japan. *BMC Medicine*, *3*, 12. Doi: 10.1186/1741-7015-3-12
- Josefsson K, Jokela M, Cloninger CR Hintsanen M, Salo J, Hintsala T, Pulkki-Raback L, & Keltikangas-Järvinen L (2013). Maturity and change in personality: developmental trends of temperament and character in adulthood. *Development and Psychopathology*, *25*, 713-727. Doi:10.1017/S0954579413000126
- Karon BP & Widener AJ (1995). Psychodynamic psychotherapies in Historical Perspective. In BM Bongar, & LE Beutler (Eds.). *Comprehensive Textbook of Psychotherapy: Theory and practice* (pp. 24-47). New York: Oxford University Press.
- Kelly GA (1955). *The Psychology of Personal Constructs*. New York: Routledge
- Kelly CM, Jorm AF, & Wright A (2007). Improving mental health literacy as a strategy to facilitate early intervention for mental disorders. *Medical Journal of Australia*, *187*, S26-S30. Doi: 10.5694/j.1326-5377.2007.tb01332.x
- Kim NS & LoSavio ST (2009). Causal explanations affect judgments of the need for psychological treatment. *Jud-*

- gment and Decision Making, 4, 82-91.
- Kocsis JH, Leon AC, Markowitz JC, Manber R, Arnow B, Klein DN, & Thase ME (2009). Patient preference as a moderator of outcome for chronic forms of major depressive disorder treated with nefazodone, cognitive behavioral analysis system of psychotherapy, or their combination. *Journal of Clinical Psychiatry*, 70, 354-361. Doi: 10.4088/JCP.08m04371
- Kwan BM, Dimidjian S, & Rizvi SL (2010). Treatment preference, engagement, and clinical improvement in pharmacotherapy versus psychotherapy for depression. *Behaviour Research and Therapy*, 48, 799-804. Doi: 10.1016/j.brat.2010.04.003
- Le BO & Bishop GD (2001). Chinese clients' belief systems about psychological problems in Singapore. *Counselling Psychology Quarterly*, 14, 219-240. Doi: 10.1080/09515070110088834
- Leykin Y, DeRubeis RJ, Gallop R, Amsterdam JD, Shelton RC, & Hollon SD (2007). The relation of patients' treatment preferences to outcome in a randomized clinical trial. *Behavior Therapy*, 38, 209-217. Doi: 10.1016/j.beth.2006.08.002
- Lindhiem O, Bennett CB, Trentacosta CJ, & McLear C (2014). Client preferences affect treatment satisfaction, completion, and clinical outcome: a meta-analysis. *Clinical Psychology Review*, 34, 506-17. Doi: 10.1016/j.cpr.2014.06.002
- Lloret Segura S, Ferreres Traver A, Hernández Baeza A, & Tomás Marco I (2014). El análisis factorial exploratorio de los ítems: una guía práctica, revisada y actualizada. *Anales de Psicología*, 30, 1151-1169. Doi: 10.6018/analesps
- Luborsky EB, O'Reilly-Landry M, & Arlow JA (2010). Psychoanalysis. In RJ Corsini & D Wedding (2010). *Current Psychotherapies* (9th ed.) (pp. 15-64). Belmont, CA: Brooks/Cole
- Marsh HW (1994). Confirmatory factor analysis models of factorial invariance: A multifaceted approach. *Structural Equation Modeling: A Multidisciplinary Journal*, 1, 5-34. Doi: 10.1080/10705519409539960
- Marshall T, Jones DP, Ramchandani PG, Stein A, & Bass C (2007). Intergenerational transmission of health beliefs in somatoform disorders Exploratory study. *The British Journal of Psychiatry*, 191, 449-450. Doi: 10.1192/bjp.bp.107.035261
- McAdams DP & Pals JL (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist*, 61, 204-217. Doi: 10.1037/0003-066X.61.3.204
- McLean K, Pasupathi M, & Pals J (2007). Selves Creating Stories Creating Selves: A Process Model of Self-development. *Personality and Social Psychology Review*, 11, 262-278. Doi: 10.1177/1088868307301034.
- McLeod, BD (2011). Relation of the alliance with outcomes in youth psychotherapy: a meta-analysis. *Clinical Psychology Review*, 31, 603-616. Doi:10.1016/j.cpr.2011.02.001.
- McLeod, J (2012). What do clients want from therapy? A practice-friendly review of research into client preferences. *European Journal of Psychotherapy & Counselling*, 14, 19-32. Doi: 10.1080/13642537.2012.652390
- Meichenbaum DH (1995). Cognitive-Behavior Theory. In BM Bongar & LE Beutler (Eds.). *Comprehensive Textbook of Psychotherapy: Theory and practice* (pp. 140-158). New York: Oxford University Press.
- Mellott RN, DeStefano TJ, French-Bloomfield J, & Kavcic V (1999). Relationship between counselor and client perceptions of psychological problems and counseling outcomes. *Journal of College Counseling*, 2, 134-147. Doi: 10.1002/j.2161-1882.1999.tb00151.x
- Miller TR (1991). The psychotherapeutic utility of the five-factor model of personality: A clinician's experience. *Journal of Personality Assessment*, 57, 415-433. Doi: 10.1207/s15327752jpa5703_3
- Moffitt R, Haynes A, & Mohr P (2015). Treatment Beliefs and Preferences for Psychological Therapies for Weight Management. *Journal of Clinical Psychology*, 71, 584-596. Doi: 10.1002/jclp.22157
- Moreira PAS, Beutler LE & Gonçalves OF (2008). Narrative Change in psychotherapy: Differences between good and bad outcome cases in cognitive, narrative and prescriptive therapies. *Journal of Clinical Psychology*, 64, 1181-1194. Doi: 10.1002/jclp.20517
- Moreira PAS & Gonçalves OF (2010). Therapist's theoretical orientation and patients' narrative production: Rogers, Lazarus, Shostrom and Cathy revisited. *International Journal of Psychology and Psychological Therapy*, 10, 227-244.
- Moreira PAS, Gonçalves OF, & Matias C (2011). Clients' narratives in psychotherapy and therapist's theoretical orientation: An exploratory analysis of Gloria's narratives with Rogers, Ellis and Perls. *Journal of Cognitive and Behavioral Psychotherapies*, 11, 173-190.
- Morgan AJ, Reavley NJ, & Jorm AF (2013). Beliefs about mental disorder treatment and prognosis: Comparison

- of health professionals with the Australian public. *Australian and New Zealand Journal of Psychiatry*, 48, 442-451. Doi: 10.1177/0004867413512686
- Muñiz J, Elosua P, & Hambleton RK (2013). Directrices para la traducción y adaptación de los tests: segunda edición. *Psicothema*, 25, 151-157. Doi: 10.7334/psicothema2013.24
- Murayama K & Elliot AJ (2009). The joint influence of personal achievement goals and classroom goal structures on achievement-relevant outcomes. *Journal of Educational Psychology*, 101, 432-477. Doi: 10.1037/a0014221
- Murguía E & Díaz K (2015). The Philosophical Foundations of Cognitive Behavioral Therapy: Stoicism, Buddhism, Taoism, and Existentialism. *Journal of Evidence-Based Psychotherapies*, 15, 39-52.
- Nakane Y, Jorm AF, Yoshioka K, Christensen H, Nakane H, & Griffiths KM (2005). Public beliefs about causes and risk factors for mental disorders: A comparison of Japan and Australia. *BMC Psychiatry*, 5, 33. Doi: 10.1186/1471-244X-5-33
- Nguyen T, Bertoni M, Charvat M, Gheyntanchi A, & Beutler LE (2007). Systematic Treatment Selection (STS): A review and future directions. *International Journal of Behavioral and Consultation Therapy*, 3, 13-29. Doi: 10.1037/h0100178
- Norcross J & Beutler LE (2010). Integrative Psychotherapies. In RJ Corsini & D Wedding (2010). *Current Psychotherapies* (9th ed.) (pp 502-535). Belmont, CA: Brooks/Cole.
- Norcross JC, Wampold BE (2011). Evidence-based therapy relationships: Research conclusions and clinical practices. *Psychotherapy*, 48, 98-102. Doi: 10.1037/a0022161
- Nunnally Jr JC (1961). *Popular Conceptions of Mental Health: Their development and change*. Oxford: Holt, Rinehart, & Winston.
- Nunnally JC & Bernstein IH (1994). *Psychometric Theory*. New York: McGraw-Hill.
- Ogunfowora B & Drapeau M (2008). A study of the relationship between personality traits and theoretical orientation preferences. *Counseling and Psychotherapy Research*, 8, 151-159. Doi: 10.1080/14733140802193218
- Oltmanns, TF & Turkheimer, E (2009). Person perception and personality pathology. *Current Directions in Psychological Science*, 18, 32-36. Doi: 10.1111/j.1467-8721.2009.01601.x
- Pasupathi M & Hoyt T (2009). The development of narrative identity in late adolescence and emergent adulthood: The continued importance of listeners. *Developmental Psychology*, 45, 558-574. Doi: 10.1037/a0014431
- Pistrang N & Barker C (1992). Clients' beliefs about psychological problems. *Counselling Psychology Quarterly*, 5, 325-335. Doi: 10.1080/09515079208254478
- Preference Collaborative Review Group (2008). Patients' preferences within randomised trials: systematic review and patient level meta-analysis. *BMJ*, 337, a1864. Doi: 10.1136/bmj.a1864
- Prochaska JO & DiClemente CC (2005). The Transtheoretical Approach. In JC Norcross & MR Goldfried (Eds.). *Handbook of Psychotherapy Integration* 3rd Ed. (pp. 147-170). New York: Oxford University Press.
- Prochaska JO, Redding CA, & Evers K (2008). The Transtheoretical Model and Stages of Change. In K Glanz, BK Rimer, K Viswanath (Eds.) *Health Behavior and Health Education: Theory, Research, and Practice* (4th Ed.) (pp. 97-116). San Francisco: Jossey-Bass.
- Raskin NL, Rogers C, & Witty MC (2010). Client-centered therapy. In RJ Corsini & D Wedding (2010). *Current Psychotherapies* (9th Ed.) (pp.148-195). Belmont, CA: Brooks/Cole.
- Reavley NJ & Jorm, AF (2011). Recognition of mental disorders and beliefs about treatment and outcome: findings from an Australian national survey of mental health literacy and stigma. *Australian and New Zealand Journal of Psychiatry*, 45, 947-956. Doi: 10.3109/00048674.2011.621060
- Reavley NJ & Jorm, AF (2012). Public recognition of mental disorders and beliefs about treatment: changes in Australia over 16 years. *The British Journal of Psychiatry*, 200, 419-425. Doi: 10.1192/bjp.bp.111.104208
- Reavley NJ & Jorm AF (2014). Associations between beliefs about the causes of mental disorders and stigmatising attitudes: Results of a national survey of the Australian public. *Australian and New Zealand Journal of Psychiatry*, 48, 764-771. Doi: 10.1177/0004867414528054
- Riedel-Heller SG, Matschinger H, & Angermeyer MC (2005). Mental disorders -who and what might help? *Social Psychiatry and Psychiatric Epidemiology*, 40, 167-174. Doi: 10.1007/s00127-005-0863-8
- Sher I, McGinn L, Sirey JA, & Meyers B (2014). Effects of caregivers' perceived stigma and causal beliefs on patients' adherence to antidepressant treatment. *Psychiatric Services*, 56, 564-569. Doi: 10.1176/appi.ps.56.5.564
- Sidani S, Epstein D, & Miranda J (2006). Eliciting Patient Treatment Preferences: A Strategy to Integrate Evidence-Based and Patient-Centered Care. *Worldviews on Evidence-Based Nursing*, 3, 116-123. Doi: 10.1111/j.1741-6787.2006.00060.x

- Swift JK, Callahan JL, & Vollmer BM (2011). Preferences. *Journal of Clinical Psychology*, *67*, 155-165. Doi: 10.1002/jclp.20759
- Thwaites R, Dagnan D, Huey D, & Addis ME (2004). The Reasons for Depression Questionnaire (RFD): UK Standardization for clinical and non-clinical populations. *Psychology and Psychotherapy: Theory, Research and Practice*, *77*, 363-374. Doi: 10.1348/1476083041839367
- Ullman JB & Bentler PM (2003). Structural Equation Modeling. In JA Schinka & WF Velicer (Eds.), *Handbook of Psychology: Research methods in psychology*, vol. 2, (pp. 607-634). New York: John Wiley & Sons.
- Wagner, AW, Bystritsky, A, Russo, JE, Craske, MG, Sherbourne, CD, Stein, MB, & Roy-Byrne, PP (2005). Beliefs about psychotropic medication and psychotherapy among primary care patients with anxiety disorders. *Depression and anxiety*, *21*, 99-105. Doi: 10.1002/da.20067
- Wang MT & Eccles, JS (2012). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development*, *83*, 877-895. Doi: 10.1111/j.1467-8624.2012.01745.x
- Webb C, Derubeis RJ, & Barber JP (2010). Therapist adherence/competence and treatment outcome: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, *78*, 200-211. Doi: 10.1037/a0018912
- Whittle P (1996). Psychiatric disorder and the development of a Causal Belief Questionnaire. *Journal of Mental Health*, *5*, 257-266. Doi: 10.1080/09638239650036929
- Wilson GT (2010). Behavior Therapy. In RJ Corsini & D Wedding (2010). *Current Psychotherapies* (9th Ed.) (pp. 235-275). Belmont, CA: Brooks/Cole.
- Wong Y, Tran, K, Kim S, Kerne V, & Calfa N (2010). Asian Americans' Lay Beliefs about Depression and Professional Help Seeking. *Journal of Clinical Psychology*, *66*, 317-332. Doi: 10.1002/jclp.20653

Received, April 19, 2021
Final Acceptance, July 27, 2020