Assessing transdiagnostic intrusive thoughts: Factor structure, reliability and validity of the Cognitive Intrusions Questionnaire-Transdiagnostic version in a Spanish sample

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ABSTRACT

Intrusive thoughts are typical symptoms of anxiety-related, mood and psychotic disorders. Freeston, Ladouceur, Thibodeau, and Gagnon (1991) developed the Cognitive Intrusions Questionnaire to address the features and processing of intrusive thoughts regardless of the theoretically related disorder. This study aims to assess the psychometric properties of a revised 79-item transdiagnostic version of the Cognitive Intrusions Questionnaire (CIQ-TV). A sample of 350 Spanish undergraduate students (mean age 21.68; 78.5% female) was used to assess its factor structure, internal consistency, test-retest reliability and criterion validity. Given the range of characteristics assesses questionnaire, the psychometric properties was studied on groups of ideas based on the components of a general appraisal model (intrusiveness, appraisals, emotions and strategies).

The CIQ-TV has a clear factor structure, internal consistency and test-retest reliability, except in the case of generalized anxiety disorder appraisals and thought-focused strategies. Criterion validity was good for obsessive-compulsive disorder and depression appraisals and appropriate for generalized anxiety disorder and social anxiety appraisals.

In summary, the results of this study showed that the CIQ-TV is a good measure for assessing intrusive thoughts and their associated processes.

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1. Introduction

1.1. Background

Different presentations of intrusive thoughts[1] are typical symptoms of anxiety-related, mood or psychotic disorders, such as obsessions in obsessive-compulsive disorder (OCD), worries in generalized anxiety disorder (GAD), negative automatic thoughts and ruminations in depression, and/or delusions in psychotic disorders. The processing of intrusive thoughts is central to cognitive models of disorders such as OCD (e.g. Salkovskis, 1985), GAD (e.g. Dugas, Marchand, & Ladouceur, 2005), illness anxiety/hypochondriasis (e.g. Warwick & Salkovskis, 1990) and social phobia/anxiety (e.g. D. M. Clark & McManus, 2002).

Various instruments have been developed since the 1980s that aim to assess the features of intrusive thoughts and their associated processes (D. A. Clark & Purdon, 1995). Freeston, Ladouceur, Thibodeau, and Gagnon (1991) developed the Cognitive Intrusions Questionnaire (CIQ) to assess the features and processing of intrusive thoughts regardless of the theoretically related disorder.[2] In a series of articles, these authors used the CIQ to compare item-by-item features of obsession-like thoughts, worries and health concerns in non-clinical samples (Freeston & Ladouceur, 1993; Freeston, Ladouceur, Thibodeau, & Gagnon, 1992; Freeston et al., 1994, 1991).

This version of the CIQ was extended by the Laval research group to more thoroughly compare the same thought types (Langlois, Freeston, & Ladouceur, 2000a, 2000b; Langlois, Ladouceur, Gosselin, & Freeston, 2004). Furthermore, other researchers have extended this questionnaire by adding items related to depressive ruminations (Watkins,

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[1] A broad definition of intrusive thought is used in this paper: "significant thought, images, or impulses that appear in consciousness and that are outside the direct control of the person".

[2] See Supplementary materials for a brief description of this and further versions of the CIQ.

Moulds, & Mackintosh, 2005), and it was also used to compare depressive and obsessive thoughts in clinical samples (Wahl et al., 2011).

Although the CIQ has been used in a number of studies, its psychometric properties have never been assessed for a number of reasons. The first is that there are several versions of the questionnaire, each developed for different purposes and each requiring a separate validation and so impractical. A second reason might be related to the distinctive features of the CIQ. Typically, factor structure, reliability, and validity are assessed by considering the instrument as a whole. Given that the original purpose of this instrument is to assess different item-by-item features and processes of a range of thoughts, this approach is probably not realistic. We argue that it is not theoretically coherent to expect internal consistency from a group of variables that measure different constructs (e.g., obsessive appraisals, emotions provoked by worries, or different strategies). In this context, we posit that a different approach should be used to validate this instrument.

1.2. Objectives and challenges

Therefore, the main objective of this research is to establish the psychometric properties of a transdiagnostic version of the CIQ (CIQ-TV) while overcoming the three main challenges, which are as follows: a) the multiple versions, b) the complexity of the underlying multicomponent model, and c) the heterogeneity and variety of the items measuring both diagnosis specific and transdiagnostic components.

To overcome the first challenge, the CIQ-TV will be extended to enable assessment of the characteristics and processes associated with a wide variety of intrusive thoughts associated with a range of different disorders.

To overcome the second and third challenges, an approach consistent with the objectives and features of the CIQ-TV will be developed that estimates structure, reliability and validity. Instead of using all the items as a whole, the items will be grouped based on theoretical criteria. The authors of the questionnaire organized the items into categories labeled intrusiveness, appraisals, emotions, and strategies. These categories can be interpreted as components of a model that encompasses the different ways in which intrusive thoughts are processed. In this model (see Fig. 1), the presence of a thought with intrusive characteristics (i.e., disturbance provoked by the thought) is appraised (i.e., responsibility) by the participant. The appraisals drive strategies through both direct paths (i.e. the appraisals indicate what needs to be done) and indirect paths where they can elicit different emotions (such as guilt) and thereby provide the signal or urgency to engage in the different strategies (such as distraction). This model will be referred to in the article as a general appraisals model. This model does not pretend to cover all psychopathology, but it does offer a transdiagnostic framework with central features or processes related to intrusive thoughts associated with various disorders.

In this manner, the factor structure is tested separately with a separate factor analysis for each component of the general appraisal model (intrusiveness, emotions, and strategies). The structure of appraisals will be tested in a slightly different manner. Given that large number of appraisal items in versions and because their content was heterogeneous, the appraisal-related items will be grouped based on the disorder to which they are theoretically most closely related. The grouping does not mean that the items are specifically related to a single disorder (i.e., the egodystonicity is relevant in OCD but also in GAD, or illness anxiety). Therefore, a single factor analysis will be performed for each group of disorder-related appraisals, provided that it is formed with a sufficient number of items. This strategy will only be used for appraisals rather than the other components of the model general features, emotions and strategies are not as characteristic of specific disorders. Because there are no previous data with this set of items, no explicit hypotheses will be formulated regarding the number of factors.

Internal consistency and test-retest reliability will be estimated by calculating one index for each component of the model, each group of the disorder-related appraisals, and each factor obtained in the analyses.

To assess the criterion validity, separate analyses will be conducted for disorder-specific appraisals and transdiagnostic components of the model (intrusiveness, emotions and strategies). In the first set of analyses, lenient and stringent tests will be performed. The lenient test determines whether the appraisals are related to the theoretically related psychopathology measure, whereas the stringent test determines whether this relationship remains after controlling for the appraisals considered characteristic of other disorders. For the transdiagnostic components, we will test whether each component makes a significant contribution to predicting the severity of the person's most severe symptoms (standardized score).

2. Methods

2.1. Participants

The sample consisted of 350 undergraduate students from three majors (Psychology, Social work and Journalism) of a Spanish University (mean age 21.68 [SD = 4.05]; 78.5% female; 89.5% single). The Psychology class completed the CIQ-TV one month after the first assessment to obtain test-retest reliability.

2.2. Procedure

The students completed the booklet containing the questionnaires as part of a practical class. All students signed an informed consent form prior to their participation in this research. The regional research board approved the study.

2.3. Instruments

2.3.1. Transdiagnostic version of the Cognitive Intrusions Questionnaire (CIQ-TV)
As explained in the introduction, the CIQ-TV was developed for this study. The development process can be found in Supplementary material.

2.3.2. Obsessive Compulsive Inventory Revised (OCI-R; Foa et al., 2002)
This questionnaire is formed by 18 items that were answered using a 5-point Likert scale. The Spanish version of this questionnaire has good psychometric properties ($\alpha = 0.88$; $r = 0.67$) (Fullana et al., 2005).

2.3.3. Worry and Anxiety Questionnaire (WAQ; Dugas et al., 2001)
Ten items answered on a 9-point Likert scale corresponding to the diagnostic criteria for GAD were used in this questionnaire. The Spanish
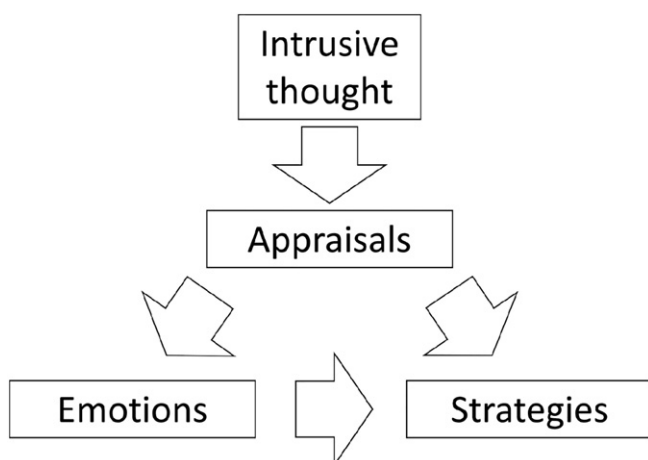

Fig. 1. General appraisal model.