Journal of Affective Disorders 178 (2015) 181–187

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research report

Cross-cultural adaptation, validation and factor structure of the Insight Scale for Affective Disorders

Rafael de Assis da Silva [a,b], Daniel C. Mograbi [c,d,*], Evelyn V.M. Camelo [b], Gregory Duff Morton [e], J. Landeira-Fernandez [c,f], Elie Cheniaux [b,g]

[a] Universidade Federal do Estado do Rio de Janeiro (UNIRIO), Rio de Janeiro, RJ, Brazil
[b] Instituto de Psiquiatria da Universidade Federal do Rio de Janeiro (IPUB/UFRJ), Rio de Janeiro, RJ, Brazil
[c] Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), Rio de Janeiro, RJ, Brazil
[d] Institute of Psychiatry, King's College, London, UK
[e] Department of Anthropology, University of Chicago, USA
[f] Universidade Estácio de Sá (UNESA), Rio de Janeiro, RJ, Brazil
[g] Faculdade de Ciências Médicas da Universidade do Estado Do Rio de Janeiro (FCM/UERJ), Rio de Janeiro, RJ, Brazil

ARTICLE INFO

Article history:
Received 25 February 2015
Accepted 2 March 2015
Available online 7 March 2015

Keywords:
Insight
Awareness
Bipolar disorder
Validation
Adaptation
Factor analysis

ABSTRACT

Background: In the last few decades, several tools for studying insight in bipolar disorders have been used. Olaya and colleagues developed the Insight Scale for Affective Disorders (ISAD), which consists of a scale measuring insight through hetero evaluation for patients with mood disorders. The objective of this work is to translate and adapt the original English version of the ISAD to Brazilian Portuguese (ISAD-BR) and to conduct an evaluation of its psychometric properties.

Methods: Adaptation procedures included translation/back-translation and consultation with a panel of experts. 95 patients with the diagnosis of Type 1 bipolar disorder were evaluated with the final version of the ISAD-BR, which was applied, simultaneously, but independently, by two examiners. Internal consistency and inter-rater reliability were explored and the latent structure of the scale was investigated with principal axis factoring and promax rotation. A second-order factor analysis was conducted to test if the scale had a hierarchical factor structure.

Results: The ISAD-BR showed good internal consistency and good inter-rater reliability. The analysis pointed to a four-factor solution of the ISAD-BR: awareness of symptoms associated with activity/energy; awareness of having a disorder; awareness of self-esteem and feelings of pleasure; and awareness of social functioning and relationships. The second order factor analysis indicated a hierarchical factor structure for the ISAD-BR, with the four lower-order factors loading on a single higher-order factor.

Conclusions: Insight into bipolar disorder is a multidimensional construct, covering different aspects of the condition and its symptomatology. Nevertheless, insight about activity/energy changes may be a crucial aspect of insight into bipolar disorder.

1. Introduction

Several studies with patients with bipolar disorder (BD) have investigated insight about the illness and its symptoms (Silva et al., 2014b; Látalova, 2012). The level of awareness about this disorder, its symptoms or psychosocial effects can significantly influence the course of the illness, affecting, for example, patient adherence to treatment (Cely et al., 2011; Sajatovic et al., 2009; Copeland et al., 2008; Yen et al., 2005).

Studies on insight have shown that this is a complex phenomenon (Amador et al., 1993). According to this view, insight should not be understood as a binary variable, but rather as a graded and multi-faceted characteristic. For this reason, multidimensional measures have been widely used in the study of insight. These dimensions include, for example, insight about the disease, accompanying symptoms and the need for treatment.

In the last few decades, several tools for studying insight in bipolar disorders have been used. Some studies (Adidas et al., 2008; Cassidy, 2010; Schuepbach et al., 2006; Silva et al., 2015) have used specific items from evaluation scales, such as the Scale for Manic States (Cassidy et al., 1998), the Young Mania Rating Scale (Young et al., 1978) or the Hamilton Depression Scale (Hamilton, 1960). Other studies (Amador et al., 1994; Dell'Osso et al., 2000; Dias et al.,

* Corresponding author at: Institute of Psychiatry, KCL, PO Box 078, De Crespigny Park, SE5 8AF London, UK. Tel.: +44 20 78485718.
E-mail address: daniel.mograbi@kcl.ac.uk (D.C. Mograbi).

http://dx.doi.org/10.1016/j.jad.2015.03.002
0165-0327/

2008; Ghaemi et al., 1995; Pini et al., 2001) used instruments designed to assess insight of patients with psychosis, such as the Insight and Treatment Attitudes Questionnaire (McEvoy et al., 1989), the Scale to Assess Unawareness of Mental Disorder (Amador et al., 1993) and the Schedule for Assessment of Insight (David et al., 1992). However, these tools were validated in samples of patients with non-affective psychotic disorders, and as result do not reflect the symptomology and the course of illness of mood disorders such as bipolar disorder.

Some scales that specifically measure insight in mood disorders have been created, such as the Mood Disorder Insight Scale (Sturman and Sproule, 2003) and the Beck Cognitive Insight Scale (Beck et al., 2004). Both of these scales are self-assessment scales for patients with mood disorders. However, insight evaluations done through self-assessments may lead to discrepant results in comparison with objective evaluations (Silva et al., 2013; Silva et al., 2014a). Considering this, Olaya et al. (2012) developed the Insight Scale for Affective Disorders (ISAD), which consists of an insight scale measured through assessments done through hetero evaluation for patients with mood disorders. The "Insight Scale for Affective Disorders" (ISAD) was developed based on the "Scale to Assess Unawareness of Mental Disorders" (Amador et al., 1994). It consists of a multidimensional scale that evaluates 17 items. For each symptom, insight is scored in a graded manner (from 1 to 5), ranging from full awareness to complete unawareness.

The objective of this work is to translate and adapt the original English version of the ISAD to Brazilian Portuguese (ISAD-BR) and to explore its psychometric properties. In addition, the factor structure of the original scale has not been investigated, and this is also explored in the current study. For this purpose, a sample of hospitalized patients and outpatients who had been diagnosed as having bipolar disorder was assessed with the ISAD-BR by two different examiners. The relationship between insight and clinical variables, such as mania, depression and global severity was also explored.

2. Material and methods

2.1. Adaptation

The adaptation started out by obtaining a translation into Portuguese of the original scale that was done by three translators who were not psychiatrists but were native Portuguese speakers fluent in English. The translations were done independently, with three Portuguese versions of the scale being produced. The next step involved merging the three different versions. A group of three Brazilian psychiatrists compared the different translations and evaluated any semantic discrepancies (including any linguistic or conceptual issues). After this was done, a consensus was obtained and a single, final version was produced. The final version was translated back into English by two native English speakers working independently of each other. The same group of three psychiatrists merged the two translations.

This version was sent to the authors of the original scale (Olaya et al., 2012) to assess whether each item in this translated version was a faithful copy of the original version. Subsequently four suggested modifications were made to three items: 8, 13 and 16. As a result, the terms "slowness", "difficulties with concentration", "attention liability" and "impaired social life", that were present in this version, were replaced, respectively, by "sluggishness", "short attention span", "distractibility" and "poor social relationships". These changes influenced the choice of the terms that were subsequently used in the final Brazilian Portuguese version. After obtaining approval from the creators of the original scale, the process of validation of the scale was carried out.

2.2. Validation

2.2.1. Participants

The study was carried out in a research clinic and in anoutpatients ward of the Institute of Psychiatry at the Federal University of Rio de Janeiro, between November 2013 and November 2014. The inclusion criteria for the study were: being diagnosed with bipolar disorder type I or type II according to the criteria of the DSM-5 (American Psychiatric Association, 2013); being 18 years old or older; and providing informed consent to take part in the study. The patients were randomly selected among those who attended the clinic or were hospitalized. The study was approved by the local ethics committee.

2.2.2. Measures

In each session, the affective state of patients was assessed by means of the criteria using DSM-5 for manic episodes and major depressive episodes. Also the following scales were used: Hamilton Depression Scale (HAM-D) (Hamilton, 1960), Young Mania Rating Scale (YMRS) (Young et al., 1978), and Clinical Global Impressions Scale for use in bipolar psychotic illness (CGI-BP) (Spearing et al., 1997). The final version of the ISAD-BR was then applied independently by two examiners.

2.2.3. Data analysis

To investigate internal consistency, Cronbach's alpha was calculated for the full scale, separately for items 1 to 3 and 4 to 17 (following the original procedure by Olaya et al. (2012)), and also for the extracted factors. In order to establish inter-rater reliability, the Intraclass Correlation Coefficient (ICC) was calculated. In addition, convergent and discriminant validity of the scale was explored. Correlations were calculated to establish the relationship of ISAD-BR factors with clinical variables, such as the YMRS and HAM-D total scores and insight items (respectively 11 and 17); Pearson or Spearman rho correlations were used according to the variable. For the correlational analysis, results were considered significant if $p < .001$, to account for the effect of multiple testing.

The Kaiser–Meyer–Olkin (KMO) measure was calculated to evaluate sampling adequacy in order to carry out an exploratory factor analysis. It has been proposed that KMO values should be equal to or above .60 in order to perform and interpret satisfactorily a factor analysis solution (Tabachnick and Fidell, 2001). A principal axis factoring (PAF) extraction method was used instead of principal components analysis because the latter procedure inflates variance estimates, since it does not discriminate shared from unique variance (Costello and Osborne, 2005). An oblique factor rotation method was employed (promax, $\delta = 0$) because of potential correlation among the factors. Examination of scree-plot, inspection of eigenvalues and parallel analysis (Hayton et al., 2004) were employed to determine the number of factors. The parallel analysis was performed using SPSS syntax (O'Connor, 2000). Factor loadings above .40 were considered relevant (Matsunaga, 2010).

To test whether the ISAD-BR has a hierarchical factor structure, a second-order factor analysis was conducted on the extracted factors, following the same procedures described above. Based on the second-order factor analysis, Schmid and Leiman (1957) orthogonalization procedure was employed to investigate item loading in the higher- and lower-order factors. This procedure was also carried out using SPSS syntax (Wolff and Preising, 2005). Factor loadings are generally lower than those observed in the original exploratory factor analysis because the Schmid–Leiman procedure allows the higher-order factor to account for as much of the correlation among the items as possible, with the lower-order factors being reduced to residual factors uncorrelated with each