

**Universidade Federal do Rio de Janeiro**

**O *INSIGHT* NO TRANSTORNO BIPOLAR**

**Rafael de Assis da Silva**

**Rio de Janeiro  
2015**

## O *insight* no transtorno bipolar

Rafael de Assis da Silva

Dissertação de Mestrado apresentada ao Programa de Pós-Graduação em Psiquiatria e Saúde Mental (PROPSAM) do Instituto de Psiquiatria da Universidade Federal do Rio de Janeiro (IPUB/UFRJ), como parte dos requisitos necessários à obtenção do Título de Mestre em Psiquiatria.

Orientador: Prof. Dr. Elie Cheniaux

Rio de Janeiro

Maio/2015

Silva, Rafael de Assis da.

O insight no transtorno bipolar / Rafael de Assis da Silva. – Rio de Janeiro: UFRJ, 2015.

x, 216f.

Dissertação (mestrado) – Universidade Federal do Rio de Janeiro/Instituto de Psiquiatria/Programa de Pós-Graduação em Psiquiatria e Saúde Mental, 2015.

Orientador: Elie Cheniaux

1. Insight. 2. Transtorno bipolar. I. Título. II. Cheniaux, Elie. III. Universidade Federal do Rio de Janeiro, Instituto de Psiquiatria, Programa de Pós-Graduação em Psiquiatria e Saúde Mental.

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Maio/2015

## **AGRADECIMENTOS**

Ao professor Elie Cheniaux e toda equipe do ambulatório de transtorno bipolar, pelo apoio e colaboração, que tornaram possível a realização deste trabalho.

A todos os familiares, amigos e profissionais, por tudo.

## RESUMO

Comumente os pacientes que sofrem de transtorno bipolar apresentam um baixo *insight*. Muitos instrumentos para a avaliação de *insight* têm sido usados, mas a maior parte deles foi criada para avaliação de esquizofrênicos, e não de transtornos do humor. O objetivo do presente estudo é aprofundar o conhecimento sobre o *insight* no transtorno bipolar. Realizaram-se uma revisão sistemática e cinco estudos clínicos sobre o *insight* em bipolares. As amostras foram compostas por pacientes com diagnóstico de transtorno bipolar, que fazem acompanhamento clínico no ambulatório de pesquisa do Instituto de Psiquiatria da Universidade Federal do Rio de Janeiro. As avaliações foram realizadas nos atendimentos, utilizando instrumentos adequados. Nesse sentido, foram produzidos cinco artigos e um manuscrito, já submetido: (1) “Mood self-assessment in bipolar disorder: a comparison between patients in mania, depression and euthymia”; (2) “The reliability of self-assessment of affective state in different phases of bipolar disorder”; (3) “O insight no transtorno bipolar: uma revisão sistemática”; (4) “Insight across the different mood states of bipolar disorder”; (5) “Cross-cultural adaptation, validation and factor structure of the Insight Scale for Affective Disorders”; e (6) “Insight in Bipolar Disorder: a comparison between mania, depression and euthymia using the Insight Scale for Affective Disorders”. O estudo permitiu concluir que a fase maníaca cursa com um nível inferior de *insight* quando comparada à fase depressiva ou de eutímia. Além disso, outros fatores, além do estado afetivo, podem influenciar o nível de *insight*, como a presença de sintomas psicóticos e comprometimento cognitivo.

## ABSTRACT

Commonly patients with bipolar disorder have low insight. Many instruments for the assessment of insight have been used, but most of them were created for evaluation of schizophrenic, and not for mood disorders. The aim of this study is to deepen knowledge about the insight in bipolar disorder. We have conducted a systematic review and five clinical studies of insight in bipolar individuals. The samples were composed of patients diagnosed with bipolar disorder, who make clinical follow-up in Institute of Psychiatry, Federal University of Rio de Janeiro. The evaluations were performed in consultations using appropriate instruments. Five articles and a manuscript, already submitted, were produced: (1) "Mood self-assessment in bipolar disorder: a comparison between patients in mania, depression and Euthymia"; (2) "The reliability of self-assessment of affective state in different phases of bipolar disorder"; (3) "The insight in bipolar disorder: a systematic review"; (4) "Insight across the different mood states of bipolar disorder"; (5) "Cross-cultural adaptation, validation and factor structure of the Insight Scale for Affective Disorders"; and (6) "Insight in Bipolar Disorder: a comparison between mania, depression and euthymia using the Insight Scale for Affective Disorders". The study concluded that the manic phase progresses with a lower level of insight when compared to the depressive phase or euthymia. In addition, other factors besides affective state, can influence the level of insight, as the presence of psychotic symptoms and cognitive impairment.

**LISTA DE SIGLAS**

CGI-BP	do inglês, <i>Clinical Global Impressions Scale for use in bipolar illness</i>
DSM	do inglês, <i>Diagnostic and Statistical Manual</i>
EVAH	Escala Visual Analógica de Humor
GAF	do inglês, <i>Global Assessment of Functioning</i>
HAM-D	do inglês, <i>Hamilton Depression Scale</i>
ISAD	do inglês, <i>Insight Scale for Affective Disorders</i>
PANSS-p	do inglês, <i>Positive and Negative Syndrome Scale</i>
SUMD	do inglês, <i>Scale to assess Unawareness of Mental Disorder</i>
YMRS	do inglês, <i>Young Mania Rating Scale</i>



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## 1. INTRODUÇÃO

O *insight* é a capacidade do indivíduo de avaliar criticamente seu estado mental (Sims, 2006). Estudos mostram que os pacientes em mania avaliam de forma não fidedigna seu estado afetivo em função de um importante comprometimento do *insight*, o que acontece em grau bem menor na depressão (Yen et al, 2007; Bressi et al, 2012; Ghaemi et al, 2004). Em um estudo com 156 pacientes bipolares, avaliou-se o grau de comprometimento do *insight* nos diferentes estados afetivos, utilizando-se o *Scale for Manic States* (Cassidy, 2010). Observou-se um maior comprometimento do *insight* nos períodos de mania do que nos de depressão, eutímia ou episódio misto. Em outro estudo, com 147 pacientes bipolares e 30 pacientes com depressão unipolar com características psicóticas, utilizou-se o *Scale to assess Unawareness of Mental Disorder* (SUMD) (Amador et al, 1994). Os autores concluíram que o *insight* estava relacionado com a polaridade do episódio: pacientes em mania apresentavam um maior comprometimento do *insight* do que pacientes em episódios mistos, depressão bipolar ou depressão unipolar.

Platman et al. (1969) encontraram que, entre indivíduos com transtorno bipolar, as autoavaliações do humor coincidiam mais com as avaliações objetivas dos pesquisadores quando os pacientes estavam em depressão do que em mania. Jamison et al. (2010), por sua vez, investigaram a autopercepção de estados de humor em 69 pacientes com transtorno bipolar. Eles foram testados com 22 pares de adjetivos opostos (p. ex., bom/mau, forte/fraco, complexo/simples), apresentados como extremos opostos em um *continuum*. As autoavaliações realizadas por pacientes em depressão, mas não aquelas realizadas por pacientes em hipomania, diferiram de modo significativo dos resultados obtidos com pacientes eutímicos. Os autores concluíram que a capacidade de

autoavaliação é substancialmente comprometida no estado maníaco, mas não no depressivo.

Uma menor ou maior consciência quanto a estar doente ou apresentar sintomas ou algum prejuízo psicossocial pode influenciar significativamente a evolução da própria doença, afetando no mínimo a adesão ao tratamento (Cely et al, 2011). Por outro lado, um maior insight parece estar associado a maior história de tentativa ou ideação suicida (Acosta ET AL, 2012).

A pesquisa de *insight* em pacientes com transtorno do humor tem crescido bastante nos últimos anos (Olaya et al, 2012). Muitos instrumentos para avaliação de *insight* tem sido usados. Mas, a maioria deles foi desenvolvida para avaliação de *insight* em esquizofrênicos, e não eram específicos para transtornos do humor. Escalas de autoavaliação raramente são usadas para aferir estados maníacos. O comprometimento cognitivo, especialmente da atenção, do juízo e da crítica, a falta de cooperação e a negação observados nos pacientes em mania tornam pouco fidedigna a avaliação. Olaya et al desenvolveram a “Insight Scale for Affective Disorders” (ISAD) (Anexo I), uma escala para avaliação do *insight* em doenças afetivas, de heteroavaliação.

## 2. OBJETIVOS

O objetivo geral do presente trabalho é estudar o *insight* no transtorno bipolar e comparar os diferentes estados afetivos quanto a esse aspecto.

Os objetivos específicos são:

1. Estudar, em indivíduos com transtorno bipolar, como a autoavaliação do humor varia em função da síndrome afetiva.
2. Validar e adaptar para o português do Brasil a versão original, em inglês, da ISAD, além de realizar a avaliação de sua estrutura fatorial.
3. Avaliar se no transtorno bipolar o *insight* global e o sobre sintomas afetivos variam em função do estado afetivo
4. Avaliar quais fatores sociodemográficos e clínicos poderiam estar relacionados às possíveis variações do nível de *insight*.

### 3. MÉTODO

Realizou-se uma revisão sistemática e cinco estudos clínicos.

#### 3.1. Revisão sistemática:

Realizou-se uma revisão sistemática da literatura científica sobre o *insight* em pacientes com transtorno bipolar. Foram buscados estudos clínicos originais sobre o tema. Foram utilizadas as bases de dados Medline, ISI, e Scielo. Não houve restrição quanto ao período da publicação. Os termos de busca empregados foram: “insight” OR “awareness” AND “bipolar” OR “mania” OR “manic”.

Os critérios de seleção dos artigos foram:

1. Estudos originais e empíricos.
2. Estudos publicados nas línguas inglesa, francesa, espanhola ou portuguesa.
3. Estudos em que o *insight* foi avaliado em uma amostra de pacientes com o diagnóstico de transtorno bipolar.
4. Os estudos que apresentassem amostras contendo outros tipos de transtornos mentais além do transtorno bipolar somente seriam incluídos se apresentassem resultados específicos para o grupo de pacientes bipolares.
5. Os estudos selecionados deveriam utilizar uma escala ou algum item específico que aferisse o *insight*.
6. As amostras deveriam ser constituídas somente por indivíduos adultos, com no mínimo dez pacientes.

Não houve procura por estudos não publicados. Somente um juiz realizou o julgamento dos artigos a serem incluídos/excluídos.

### **3.2. Local dos estudos clínicos:**

A pesquisa foi realizada no Laboratório de Transtorno Bipolar do Humor do Instituto de Psiquiatria da Universidade Federal do Rio de Janeiro. O ambulatório é coordenado pelo professor Elie Cheniaux. Atualmente, atende cerca de 170 pacientes com o diagnóstico de transtorno bipolar tipo I, transtorno bipolar tipo II e transtorno esquizoafetivo do tipo bipolar. Os pacientes são tratados com as medicações disponíveis na farmácia da Universidade.

### **3.3. Amostra:**

Os únicos critérios de inclusão foram: idade igual ou superior a 18 anos; adequação aos critérios do DSM-IV-TR para os diagnósticos de transtorno bipolar tipo I, transtorno bipolar tipo II e transtorno esquizoafetivo do tipo bipolar; e assinatura do termo de consentimento livre e esclarecido (Anexo II).

Como critérios de exclusão estavam a não aceitação em participar da pesquisa, a não cooperação na aplicação dos instrumentos de avaliação, e sofrer de doença não psiquiátrica grave.

### **3.4. Instrumentos:**

Os instrumentos utilizados foram: Escala Visual Analógica de Humor (EVAH) (Anexo III), Hamilton Depression Scale (HAM-D) (Anexo IV), Young Mania Rating Scale (YMRS) (Anexo V), Positive and Negative Syndrome Scale (PANSS-p) (a subescala de sintomas positivos) (Anexo VI), Global Assessment of Functioning (GAF) (Anexo VII), Clinical Global Impressions Scale for use in bipolar illness (CGI-BP) (Anexo VIII) e Insight Scale for Affective Disorders (ISAD).

### **3.5. Método estudo clínico 1:**

Cento e sessenta e cinco pacientes com diagnóstico de transtorno bipolar tipo I ou tipo II foram avaliados quanto à ocorrência de uma síndrome afetiva através do CGI-BP, da PANSS-p e da GAF. Em paralelo, foi aplicado um instrumento de autoavaliação relativa a alterações do humor, a EVAH. Os pacientes foram divididos em três grupos (eutimia, mania e depressão), os quais foram comparados entre si quanto aos resultados da EVAH.

### **3.6. Método estudo clínico 2:**

Sessenta e cinco pacientes com diagnóstico de transtorno bipolar tipo I ou tipo II foram avaliados quanto à ocorrência de uma síndrome afetiva através do CGI-BP, da PANSS-p e da GAF. Em paralelo, foi aplicado um instrumento de autoavaliação relativa a alterações do humor, a EVAH. O mesmo indivíduo foi submetido prospectivamente a um instrumento de autoavaliação em diferentes estados afetivos, representando cada um o controle de si mesmo.

### **3.7. Método estudo clínico 3:**

Quarenta e oito pacientes foram avaliados em quatro estados afetivos diferentes, ou seja, eutimia, mania, depressão e estado misto. Foram registrados os dados de identificação, sociodemográficos e a história clínica de cada paciente. Foram aplicadas as seguintes escalas: HAM-D, YMRS, PANSS-p, GAF e CGI-BP. O *insight* foi avaliado utilizando os itens 17 e 11, respectivamente, das escalas de HAM-D e YMRS.

### **3.8. Método estudo clínico 4:**



O procedimento de adaptação da ISAD incluiu tradução/retrotradução e avaliação por uma equipe de especialistas. Noventa e cinco pacientes com diagnóstico de transtorno bipolar tipo 1 foram avaliados com a versão final, em português, da ISAD-BR, que foi aplicada simultaneamente, mas, de forma independente, por dois examinadores. Ferramentas estatísticas apropriadas foram utilizadas para a análise fatorial da escala.

### **3.9. Método estudo clínico 5:**

Noventa e cinco pacientes foram avaliados em diferentes estados afetivos (eutimia, mania e depressão). Informações sobre identificação e dados sociodemográficos foram registrados. As seguintes escalas foram aplicadas: HAM-D, YMRS, PANSS-p e CGI-BP. O *insight* foi avaliado com a versão em português da Insight Scale for Affective Disorders (ISAD-BR).

#### 4. RESULTADOS

O presente estudo resultou em cinco artigos e um manuscrito não publicado. Os resultados poderão ser vistos no conteúdo dos artigos. Os cinco artigos já foram publicados em periódicos indexados. O manuscrito já foi submetido, e até o presente momento, aguarda resposta dos editores.

O primeiro artigo, “Mood self-assessment in bipolar disorder: a comparison between patients in mania, depression and euthymia”, foi publicado na revista *Trends in Psychiatry and Psychotherapy*, volume 35, número 2, nas páginas 141 a 145, no ano de 2013.

O segundo artigo, “The reliability of self-assessment of affective state in different phases of bipolar disorder”, foi publicado na revista *The Journal of Nervous and Mental Disease*, volume 202, número 5, nas páginas 386 a 390, no ano de 2014.

O terceiro artigo, “O insight no transtorno bipolar: uma revisão sistemática”, foi publicado no *Jornal Brasileiro de Psiquiatria*, volume 63, número 3, nas páginas 242 a 254, no ano de 2014.

O quarto artigo, “Insight across the different mood states of bipolar disorder”, foi publicado na revista *Psychiatric Quarterly*, no ano de 2015. Até o presente momento, encontra-se publicado online, aguardando a versão impressa. DOI 10.1007/s11126-015-9340-z.

O quinto artigo, “Cross-cultural adaptation, validation and factor structure of the Insight Scale for Affective Disorders”, foi publicado na revista *Journal of Affective Disorders*, número 178, nas páginas 181 a 187, no ano de 2015.

O manuscrito, “Insight in Bipolar Disorder: a comparison between mania, depression and euthymia using the Insight Scale for Affective Disorders”, foi submetido à revista *Trends in Psychiatry and Psychotherapy*, no ano de 2015.

Os cinco artigos e o manuscrito são apresentados a seguir:

**AUTOAVALIAÇÃO DO ESTADO DE HUMOR NO TRANSTORNO BIPOLAR:  
UMA COMPARAÇÃO ENTRE PACIENTES EM MANIA, DEPRESSÃO E  
EUTIMIA**

**SELF-ASSESSMENT OF MOOD IN BIPOLAR DISORDER: A COMPARISON  
BETWEEN PATIENTS WITH MANIA, DEPRESSION AND EUTHYMIA**

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*Trends in Psychiatry and Psychotherapy*. 2013; 35(2):141-145.

## Resumo

Contexto: Alguns estudos indicam que a capacidade de autoavaliação é mais comprometida na mania do que na depressão.

Objetivo: Estudar, em indivíduos com transtorno bipolar, como a autoavaliação do humor varia em função da síndrome afetiva atual.

Método: 165 pacientes com diagnóstico de transtorno bipolar tipo I ou tipo II foram avaliados quanto à ocorrência de uma síndrome afetiva através do *Clinical Global Impressions Scale for use in bipolar illness (CGI-BP)*, da *The Positive And Negative Syndrome Scale (PANSS)* e da *Global Assessment of Functioning (GAF)*. Em paralelo, foi aplicado um instrumento de autoavaliação relativa a alterações do humor, a escala visual analógica do humor (EVAH). Os pacientes foram divididos em três grupos (eutímia, mania e depressão), os quais foram comparados entre si quanto aos resultados da EVAH.

Resultados: Entre os 16 itens da EAVH, em 14 os pacientes em mania avaliaram seu estado de humor de forma semelhante à dos pacientes em eutímia, e, em apenas dois itens, os deprimidos não se distinguiram dos eutímicos.

Discussão: Pacientes bipolares em mania, mas não os deprimidos, avaliam de forma não fidedigna seu estado afetivo, o que reflete o importante comprometimento do *insight* observado na síndrome maníaca.

Palavras-chave: *insight*, humor, autoavaliação, transtorno bipolar.

## **Abstract**

**Background:** Some studies indicate that the ability of self-assessment is more compromised in mania than in depression.

**Objectives:** To study, in a group of individuals with bipolar disorder, how self-assessment of mood varies with current affective syndrome.

**Methods:** 165 patients with a diagnosis of bipolar disorder type I or type II were evaluated for the occurrence of an affective syndrome through the Clinical Global Impressions Scale for use in bipolar illness (CGI-BP), *The Positive And Negative Syndrome Scale* (PANSS) and the *Global Assessment of Functioning* (GAF). In parallel, participants completed a self-assessment visual analogue mood scale (VAMS). Patients were divided into three groups (euthymia, mania and depression).

**Results:** Manic patients rated their mood similar to that of patients in euthymia in 14 out of 16 items of the VAMS. By contrast, depressed patients only rated their mood similarly to patients in euthymia in 2 items.

**Discussion:** Patients with bipolar mania, but not depressed, evaluate poorly their affective state, which reflects the important insight impairment observed in the manic syndrome.

**Keywords:** insight, mood, self-assessment, bipolar disorder.

## **Introduction**

Self-report scales are rarely used to assess manic states. Cognitive impairment (affecting primarily attention, insight, and criticism), the lack of cooperation, and the negation observed in patients in manic states make self-assessment unreliable.<sup>1</sup> Platman et al.<sup>2</sup> observed that, among individuals with bipolar disorder, mood self-assessment results more frequently overlapped with objective measurements made by investigators when patients were in depression than when they were in mania. Jamison et al.,<sup>1</sup> in turn, investigated self-perceived mood states in 69 patients with bipolar disorder. In that study, patients were tested using 22 pairs of opposite adjectives (e.g., good/bad, weak/strong, complex/simple), presented as extreme opposites over a continuum. Self-assessment of patients in depression, but not of hypomanic patients, showed significant differences in relation to the results obtained for euthymic patients. The authors concluded that self-assessment is substantially compromised in manic states, but not in depression. These results have been published in a book chapter, but not in a journal article, to the best of the authors' knowledge.

The present study was designed to prospectively assess mood self-assessment in individuals with bipolar disorder in relation to current affective state, i.e., euthymia, mania, or depression. Our null hypothesis was that patients in mania, but not those in depression, would self-assess their mood similarly to euthymic patients.

## **Method**

### *Sample*

Our sample comprised 165 patients with a diagnosis of bipolar disorder (154 type I and 11 type II). All patients received treatment at the outpatient unit of Instituto

de Psiquiatria, Universidade Federal do Rio de Janeiro, over a 2-year period, from November 2008 to November 2010. The following inclusion criteria were taken into consideration: being 18 years old or older; having a diagnosis of type I or type II bipolar disorder; and agreeing to sign an informed consent form. Personal and sociodemographic data were collected from each patient. The research protocol was approved by the local research ethics committee.

### ***Clinical assessment***

The psychiatric diagnosis of bipolar disorder was established using the Structured Clinical Interview for DSM Disorders (SCID) according to criteria from the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision (DSM-IV-TR).<sup>3</sup>

At each visit, the patient's affective state was assessed using the Clinical Global Impressions Scale for use in bipolar illness (CGI-BP),<sup>4</sup> with scores ranging from 1 (normal) to 7 (very severely ill). In order to be considered euthymic, the patient had to present a score below 3, which corresponds to minimally improved in both the mania and the depression subscales. A diagnosis of mania or depression therefore required a minimum score of 3. At each visit, the patient's affective state was determined as either euthymia, mania, depression, or a mixed state. The occurrence of manic and depressive episodes and their severity were assessed using the CGI-BP, considering the highest severity score as the final result. Assessments determining mixed states were disregarded.

Two additional instruments were used to assess illness severity, namely, the positive symptom subscale of the Positive and Negative Syndrome Scale (PANSS-p)<sup>5</sup> and the Global Assessment of Functioning (GAF).<sup>6</sup> PANSS-p scores range from 1



(absent) to 7 (extreme), and the instrument was useful to assess the presence and severity of psychotic symptoms among patients. In the present study, psychosis was considered to be present when delirium or hallucinations were observed. The GAF scale, in turn, assesses social, occupational, and psychological functioning over a continuum that ranges from 1 (poor functioning) to 100 (best functioning).

In parallel, a self-report instrument was applied to assess the occurrence of mood swings, namely, the visual analog mood scale (VAMS),<sup>7</sup> which has been translated into Brazilian Portuguese and adapted to the Brazilian reality.<sup>8</sup> This scale comprises 16 items, each including two adjectives with opposite meanings, as follows: alert-drowsy, calm-excited, strong-feeble, clear-headed-muzzy, well-coordinated-clumsy, energetic-lethargic, contented-discontented, tranquil-troubled, quick-witted-mentally slow, relaxed-tense, attentive-dreamy, proficient-incompetent, happy-sad, amicable-antagonistic, interested-bored, and gregarious-withdrawn. In the VAMS, each adjective is separated from its opposite by a 10 cm line on which the subject has to mark the point which best describes his feelings at the time. In this type of scale, responses are given over a continuum rather than following predetermined intervals.

The main analysis of our study involved the investigation of possible relationships between different affective states, as assessed by CGI-BP, and VAMS results. With this goal in mind, patients were divided into three groups, namely, euthymia, mania, depression. Each patient was assigned to one single group only. The following criteria were taken into consideration: 1) euthymia, only patients classified as euthymic at all visits, and only the first VAMS results used in the analysis; 2) mania, patients who showed at least one episode of mania throughout the study period, first VAMS results obtained during a manic episode used in the analysis; and 3) depression, patients who showed at least one episode of depression and no episode of mania

throughout the study period, first VAMS results obtained during a depressive episode used in the analysis.

### ***Statistical analysis***

Differences between the groups in terms of VAMS scores were explored using one-way analysis of variance (ANOVA). Cases showing differences in ANOVA were adjusted for pairwise comparisons with Bonferroni correction.

Differences observed in sociodemographic and clinical characteristics across the groups were also tested. Educational level, age, and scores obtained on PANSS-p, GAF, and CGI-BP were assessed using one-way ANOVA, whereas gender and frequency of psychotic symptoms were tested using the chi-square test. Again, pairwise comparisons following Bonferroni adjustment were carried out whenever differences were observed in the initial analyses.

### **Results**

Of the 165 patients assessed, only 16 were classified as euthymic, manic, and depressive at different moments. One hundred patients presented the same affective state at all assessments: 59 in euthymia, 15 in mania, and 26 in depression. Moreover, 15 patients were euthymic and showed episodes of mania but no depressive episodes, and 26 were euthymic and showed episodes of depression but no manic episodes. Finally, only eight patients showed both manic and depressive episodes but were never classified as euthymic.

Patient distribution according to the criteria previously established was as follows: 59 in the euthymia group, 54 in the mania group, and 52 in the depression group.

Demographic and clinical data obtained for each group are presented in Table 1. Sociodemographic variables were statistically similar across the three groups. Notwithstanding, gender showed a trend toward difference, with a higher female-to-male ratio in the depression group when compared with the other two groups. A higher frequency of psychotic symptoms and higher PANSS-p scores were observed in manic patients when compared with euthymic and depressed ones. Analysis also showed higher CGI-BP and lower GAF scores in patients in mania and depression when compared with euthymic individuals.

One-way ANOVA revealed significant differences between the groups for the following variables on VAMS: alert-drowsy,  $F(2, 162) = 9.47, p < 0.001$ ; calm-excited,  $F(2, 162) = 10.80, p < 0.001$ ; strong-feeble,  $F(2, 162) = 19.86, p < 0.001$ ; clear-headed-muzzy,  $F(2, 162) = 7.28, p = 0.001$ ; well-coordinated-clumsy,  $F(2, 162) = 15.15, p < 0.001$ ; energetic-lethargic,  $F(2, 162) = 15.40, p < 0.001$ ; contented-discontented,  $F(2, 162) = 21.50, p < 0.001$ ; tranquil-troubled,  $F(2, 162) = 7.80, p = 0.001$ ; quick-witted-mentally slow,  $F(2, 162) = 10.30, p < 0.001$ ; relaxed-tense,  $F(2, 162) = 5.73, p = 0.004$ ; attentive-dreamy,  $F(2, 162) = 11.87, p < 0.001$ ; proficient-incompetent,  $F(2, 162) = 17.47, p < 0.001$ ; happy-sad,  $F(2, 162) = 18.99, p < 0.001$ ; interested-bored,  $F(2, 162) = 30.50, p < 0.001$ ; gregarious-withdrawn,  $F(2, 162) = 17.60, p < 0.001$ . The amicable-antagonistic variable did not show significant differences:  $F(2, 162) = 0.93, p = 0.397$ .

As shown in Table 2, 14 of the 16 items comprising the VAMS showed similar scores in the euthymia and mania groups. Of these 14 items, 11 showed differences between euthymia/mania and depression, two did not show differences across the three groups, and one showed similar results for mania and depression, but differences between euthymia and depression. In only two of the 16 items, differences were found

between the euthymia and mania groups: in the interested-bored item, the euthymia group showed differences also in relation to the depression group; in the calm-excited item, euthymic patients performed similarly to depressive ones. As a result, the depression group was similar to the euthymia group in only two of the 16 items comprising the VAMS.

## **Discussion**

In our study, most of the items assessed in the VAMS were scored similarly by patients in mania and euthymia, whereas depressive patients self-assessed their mood differently than manic and euthymic patients. These results confirmed our expectations and are in line with those reported by Jamison et al.<sup>1</sup> In that study, of a total of 22 pairs of opposite adjectives, only two showed significant differences in the self-assessment of hypomanic vs. euthymic bipolar patients.

Another study, conducted by Platman et al.,<sup>2</sup> also found that, among individuals with bipolar disorder, mood self-assessment is more reliable during depression than during mania. Eleven patients were assessed using the Emotions Profile Index, a scale designed to assess primary emotions. Self-reported results obtained in depressed patients overlapped with objective assessments made by members of the healthcare team. Nevertheless, a great level of disagreement was observed between self-assessment made by manic patients and the team's objective measures.

It seems evident that patients in mania do not reliably assess their own affective state, probably as a result of insight impairment, a phenomenon that is not observed in depressive episodes in the same extent.<sup>9-16</sup> In a study involving 156 patients with bipolar disorder, insight impairment was assessed according to different affective states using the Scale for Manic States. A higher degree of insight impairment was observed in

mania when compared with depression, euthymia, or mixed states.<sup>9</sup> A similar study assessed 54 patients with mood disorder, including bipolar and unipolar depression, in both manic and depressive states, using the Spanish version of the Manual for the Assessment and Documentation of Psychopathology. The authors observed that patients in mania had more severely impaired insight when compared with patients in depression. Conversely, patients with psychotic depression showed more severe insight impairment than those with depression and no psychotic features. Notwithstanding, the presence or absence of psychotic symptoms did not reveal differences among manic patients.<sup>16</sup> Another study used the Scale to Assess Unawareness of Mental Disorder (SUMD) to assess 147 bipolar patients and 30 patients with unipolar depression with psychotic features.<sup>17</sup> Those authors concluded that insight was related with episode polarity, where patients in a manic episode showed a higher degree of insight impairment than patients in mixed episodes or in bipolar/unipolar depression.<sup>12</sup>

Insight impairment is also observed in other mental disorders. Some studies<sup>17-19</sup> have compared schizophrenic, schizoaffective, and bipolar patients with regard to their insight into illness using the SUMD. Amador et al.<sup>17</sup> and Pini et al.<sup>18</sup> observed more severe insight impairment in patients with schizophrenia. Pini et al.,<sup>19</sup> in turn, found that schizophrenic patients showed more severely impaired insight when compared with schizoaffective patients and those with unipolar depression with psychotic features. Conversely, the insight of schizophrenic patients was as severely compromised as that of bipolar patients.

The unreliability of mood self-assessment as measured by the VAMS in patients in mania could be related to certain clinical characteristics observed in these individuals, such as cognitive impairment, particularly related to attention and executive functions,<sup>20</sup> in addition to impulsivity.<sup>21</sup> In this sense, the manic patients assessed in our study may

have filled the scale too fast, without much reflection. From a different perspective, however, it remains unclear why their self-assessment errors, induced by impulsivity and hurry, have specifically reproduced the results obtained with euthymic patients rather than random results.

One possible limitation of our study is the fact that the group of patients in mania showed more frequent and more severe psychotic symptoms when compared with patients in depression or euthymia. Because the presence of psychotic symptoms is associated with increased insight impairment,<sup>16</sup> the possible influence of these symptoms on the less reliable self-assessment results obtained in manic patients should not be discarded. Another limitation relates to the fact that the same patient was not assessed while in different affective states. A longitudinal study<sup>13</sup> involving patients with bipolar disorder assessed using the SUMD reported insight improvement after the resolution of manic episodes. Another similar study following 65 patients with bipolar disorder over 2 years also reported more severe insight impairment in a patient during a manic episode and less severe impairment in the same patient during euthymia or depression.<sup>10</sup> The instrument used in that study was the Schedule of Assessment of Insight-Expanded version (SAI-E). The same study showed that insight returned to pre-episode levels in patients who had experienced only one manic episode, but not in patients with multiple episodes of mania, suggesting that insight could become increasingly impaired as a result of successive affective episodes.

Látalova<sup>20</sup> found an association between higher levels of insight and improved treatment response in bipolar disorder. According to that author, this relationship is probably mediated by a higher level of adherence to drug treatment, resulting in improvement of psychopathological symptoms and consequently to less severe insight

impairment. These findings underscore the importance of psychoeducation in bipolar disorder, leading to increased treatment adherence as a result of improved insight.

## **Conclusion**

Our findings suggest that patients with bipolar disorder in manic episodes, but not those in depressive episodes, do not reliably assess their mood state, which probably reflects the more severe insight impairment observed in the manic syndrome. Future studies that control for the occurrence of psychotic symptoms and that assess the same individual at different phases of bipolar disorder are warranted and would greatly contribute to corroborate our findings.

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**Table 1** - Comparison between the three groups of patients according to sociodemographic and clinical characteristics

<b>Variable</b>	<b>Euthymia (n = 59)</b>	<b>Mania (n = 54)</b>	<b>Depression (n = 52)</b>	<b>p</b>
Gender (female/male), %	54.2%/45.8%	68.5%/31.5%	75.0%/25.0%	.061
Educational level (years), mean $\pm$ SD (mv: 5)	11.8 (4.2)	12.3 (2.8)	11.6 (4.1)	.645
Age (years), mean $\pm$ SD (mv: 1)	42.9 (13.9)	45.8 (11.3)	46.4 (12.5)	.300
GAF (total score), mean $\pm$ SD	76.7 (12.5)	54.4 (11.9)	59.0 (9.8)	<.001
CGI-BP (total score), mean $\pm$ SD	1.5 (0.5)	3.7 (0.7)	3.7 (0.8)	<.001
PANSS-p (total score), mean $\pm$ SD	7.7 (1.4)	13.5 (4.4)	8.2 (1.8)	<.001
Frequency of psychotic symptoms, %	3.4%	35.2%	11.5%	<.001

CGI-BP = Clinical Global Impressions Scale for use in bipolar illness; GAF = Global Assessment of Functioning; mv = missing values; PANSS-p = Positive and Negative Syndrome Scale, positive symptom subscale; SD = standard deviation.

**Table 2** - Comparison between the groups of patients in euthymia (n = 59), mania (n = 54), and depression (n = 52) with regard to the mean results obtained in the visual analog mood scale (VAMS)

<b>Alert-drowsy</b>	Euthymia	3,23 ( $\pm$ 2,84)#
	Mania	3,67 ( $\pm$ 3,13)#
	Depression	5,67 ( $\pm$ 3,34)*
<b>Calm-excited</b>	Euthymia	2,74 ( $\pm$ 2,78)
	Mania	5,42 ( $\pm$ 3,16)*#
	Depression	3,88 ( $\pm$ 3,27)
<b>Strong-feeble</b>	Euthymia	3,38 ( $\pm$ 2,56)#
	Mania	3,79 ( $\pm$ 2,67)#
	Depression	6,47 ( $\pm$ 3,07)*
<b>Clear-headed-muzzy</b>	Euthymia	7,28 ( $\pm$ 2,76)#
	Mania	5,90 ( $\pm$ 3,27)
	Depression	4,93 ( $\pm$ 3,75)*
<b>Well-coordinated-clumsy</b>	Euthymia	2,92 ( $\pm$ 2,92)#
	Mania	3,35 ( $\pm$ 3,01)#
	Depression	5,90 ( $\pm$ 3,20)*
<b>Energetic-lethargic</b>	Euthymia	6,48 ( $\pm$ 2,86)#
	Mania	6,86 ( $\pm$ 2,84)#
	Depression	3,84 ( $\pm$ 3,46)*
<b>Contented-discontented</b>	Euthymia	3,94 ( $\pm$ 3,15)#
	Mania	3,59 ( $\pm$ 3,25)#
	Depression	7,16 ( $\pm$ 2,85)*

<b>Tranquil-troubled</b>	Euthymia	5,30 ( $\pm$ 3,42)#
	Mania	4,46 ( $\pm$ 3,36)#
	Depression	2,80 ( $\pm$ 3,28)*
<b>Quick-witted-mentally slow</b>	Euthymia	6,27 ( $\pm$ 2,93)#
	Mania	5,94 ( $\pm$ 3,04)#
	Depression	3,76 ( $\pm$ 3,40)*
<b>Relaxed-tense</b>	Euthymia	5,43 ( $\pm$ 3,08)#
	Mania	4,12 ( $\pm$ 3,07)
	Depression	3,44 ( $\pm$ 3,35)*
<b>Attentive-dreamy</b>	Euthymia	3,29 ( $\pm$ 2,91)#
	Mania	3,19 ( $\pm$ 2,92)#
	Depression	5,81 ( $\pm$ 3,61)*
<b>Proficient-incompetent</b>	Euthymia	7,28 ( $\pm$ 2,43)#
	Mania	7,14 ( $\pm$ 2,82)#
	Depression	4,33 ( $\pm$ 3,49)*
<b>Happy-sad</b>	Euthymia	3,69 ( $\pm$ 3,00)#
	Mania	3,51 ( $\pm$ 3,32)#
	Depression	6,74 ( $\pm$ 2,77)*
<b>Amicable-antagonistic</b>	Euthymia	6,89 ( $\pm$ 2,84)
	Mania	6,10 ( $\pm$ 3,40)
	Depression	6,60 ( $\pm$ 3,07)
<b>Interested-bored</b>	Euthymia	3,09 ( $\pm$ 2,99)#
	Mania	1,77 ( $\pm$ 2,01)*#

	Depression	6,03 ( $\pm$ 3,44)*
<b>Gregarious-withdrawn</b>	Euthymia	6,13 ( $\pm$ 3,25)#
	Mania	7,27 ( $\pm$ 3,03)#
	Depression	3,62 ( $\pm$ 3,43)*

\* Different from euthymic patients ( $p < 0.05$ ).

† Different from depressive patients ( $p < 0.05$ ).

**THE RELIABILITY OF SELF-ASSESSMENT OF AFFECTIVE STATE IN  
DIFFERENT PHASES OF BIPOLAR DISORDER**

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*The Journal of Nervous and Mental Disease.* 2014; 202(5):386-390.

**Abstract**

Some studies have indicated that the capacity of self-assessment of affective state is more compromised during mania than during depression. In the present study, we investigated whether the reliability of self-assessment in bipolar disorder varies as a function of actual affective state (i.e., euthymia, mania, or depression). Sixty-five patients with a diagnosis of type I and type II bipolar disorder were evaluated with regard to the occurrence of an affective syndrome using the Clinical Global Impressions Scale for use in bipolar illness (CGI-BP), Positive and Negative Syndrome Scale (PANSS), and Global Assessment of Functioning (GAF) scale. In parallel, we applied the Analog Visual Mood Scale (AVMS), a self-assessment tool to evaluate mood changes. The same individual prospectively completed the self-assessment scale in different affective states. During depression, patients' evaluation was significantly different from when they were in manic or euthymic mood states. However, when in mania patients evaluated their mood state similarly to when they were euthymic. Bipolar patients in mania but not in depression did not reliably evaluate themselves with regard to their affective state.

**Keywords:** insight, mood, self-assessment, bipolar disorder.



## **Introduction**

Several self-assessment tools have been created to evaluate affective states in mood disorders. Some of them are specific for manic states, whereas others are specific for depressed states (Picardi, 2008). However, self-assessment scales are modestly used to evaluate manic states. Compromised cognition, judgment or insight, and the lack of cooperation of patients in a manic state can lead to unreliable results (Goodwin and Jamison, 2010).

A number of studies have indicated that insight is impaired in mania (Ghaemi et al., 1995), but preserved in depression (Ghaemi et al., 1997). In addition to influencing prognosis, treatment compliance and functioning (McEvoy, 2004; Yen et al., 2002), poor insight also interferes in clinical evaluation. In this regard, around 40% of bipolar disorder patients are erroneously diagnosed as having unipolar depression (Ghaemi et al., 2000), since they report more frequently depressive symptoms relative to mania symptoms (Ghaemi et al., 2002).

Some studies have reported that patients with bipolar disorder evaluated their affective states more reliably when they were in a depressed state as opposed to a manic state. Platman et al. found in 1969 that mood self-assessment in individuals with bipolar disorder coincided more with the researcher's objective evaluation when the patients were in a depressed state compared with a manic state. Jamison et al. (2010) investigated the self-assessment of affective states in 69 patients with bipolar disorder using a visual analog scale with 22 items represented by pairs of opposite adjectives (e.g., good/bad, strong/weak, complex/simple) placed at the extremes of the continuum. The self-assessments performed by the patients who were hypomanic were very different from the self-assessment performed by patients who were depressed, but they were similar to euthymic patients.

A previous study (Silva et al., 2013) with a sample of 165 patients with bipolar disorder used the Analog Visual Mood Scale (AVMS; i.e., an affective state self-assessment tool) (Norris, 1971). Patients with mania responded to the questionnaire similarly to patients with euthymia on 14 of the 16 items. However, patients in a depressed state responded to the questionnaire similarly to patients with euthymia on only two items. These results suggest that patients with bipolar disorder who were manic but not depressed evaluated their mood unreliably, possibly reflecting impairments of insight in the manic syndrome. Different individuals comprised the groups (i.e., euthymic, depressed, and manic). Therefore, changes in the self-assessment of the same individual were not studied in different affective states.

The present study investigated whether the reliability of self-assessment in bipolar disorder varies as a function of the actual affective state (i.e., euthymia, mania, and depression). In contrast to previous studies, the same individual prospectively completed a self-assessment scale in different affective states. Therefore, the subjects served as their own controls.

## **Methods**

### *Sample*

The study was performed in an ambulatory clinic at the Psychiatry Institute of the Federal University of Rio de Janeiro. The study was conducted over a 2-year period between November 2008 and November 2010. During this period, all patients referred to the service were consecutively assessed and received a psychiatric diagnosis. The criteria for inclusion were the following: diagnosis of type I or type II bipolar disorder according DSM-IV-TR criteria, at least 18 years of age, signing a free and informed consent term, and the occurrence of at least two different affective states among the

three considered herein (i.e., euthymia, mania, and depression) during the period of study. Patients who did not agree to take part in the study or who had serious non-psychiatric conditions (e.g. congestive heart failure, renal insufficiency) were excluded. The local ethics committee approved the study.

One hundred sixty-five patients diagnosed with bipolar disorder constituted the initial sample. Among these 165 patients, only 65 (63 with type I and type II) presented at least two different affective states during the study period and were selected. 49 male and 16 female patients (average age,  $45.55 \pm 11.39$  years) constituted the sample. All assessments were conducted in the outpatient unit, and no patient needed inpatient treatment during any affective state. Only two patients did not complete the study, with both cases being considered drop-outs. The range of medications used by patients was quite heterogeneous, with 60% on lithium, 15,4% on valproic acid, 18,5% on carbamazepine, 43,1% on antipsychotics, 9,2% on antidepressants and 44,6% on benzodiazepines.

#### *Clinical evaluation*

The identification and socioeconomic data of all of the patients were recorded. The psychiatric diagnosis was based on the criteria of the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition, text revision (DSM-IV-TR), using the Semi-Structured Clinical Interview of the DSM-IV-TR (Del-Ben et al., 2010).

In each consultation, the affective state of each patient was evaluated using the DSM-IV-TR criteria for a manic episode, major depression episode, and mixed episode. Evaluations of periods of mixed states were excluded for convenience, since the main goal of the current study was to compare insight during mania and depression.

In parallel, we applied a self-assessment tool, the Analog Visual Mood Scale (AVMS), to assess the occurrence of mood changes (Norris, 1971), which was translated to Portuguese and adapted for Brazil (Zuardi and Karniol, 1981). This scale is composed of 16 items, each of which refers to a pair of adjectives with opposite meanings: alert/sleepy, calm/agitated, strong/weak, confused/with clear ideas, agile/clumsy, apathetic/dynamic, satisfied/dissatisfied, worried/unconcerned, difficult thinking/perspicacious, tense/relaxed, attentive/distracted, incompetent/competent, happy/sad, hostile/cordial, interested/disinterested, and retracted/sociable. On the tool's sheet of paper, each adjective is separated from its antonym by a 10 cm line on which the subjects should mark the point that best describes their self-perception at that moment. On this scale, responses are given on a continuum and not in predetermined intervals. The following instruction was given to participants: "Please rate how you are feeling right now in relation to the items below. Consider each line as a representation of each dimension, with the extremities indicating the maximum state for each emotion. Place a mark across the line at the point which best represents how you are feeling now".

Three other tools for objective evaluation were applied, including the Positive and Negative Syndrome Scale-Positive Symptom Subscale (PANSS-p) (Chaves and Shirakawa, 1998), the Clinical Global Impressions Scale for use in bipolar illness (CGI-BP) (Spearing et al., 1997), and the Global Assessment of Functioning (GAF) scale (Hall, 1995). The PANSS-p allows the evaluation of the presence and intensity of psychotic symptoms. In the present study, a psychotic episode was operationalized as the presence of at least one delusion or hallucination episode of any nature. The CGI-BP presents a global score related to the severity of the affective episode. The GAF evaluates overall social, occupational, and psychological functioning.

The present study focused on correlations among affective states (i.e., mania, depression, and euthymia) and the results of the AVMS. The objective was to evaluate whether the same patient with bipolar disorder evaluates himself or herself differently when experiencing different affective states. Mania *vs.* euthymia, depression *vs.* euthymia, and mania *vs.* depression comparisons were made between the AVMS results. Because the same patient could present the same affective state more than once during the study period, we only considered the results of the first phase of euthymia, mania, or depression for each patient.

#### *Statistical analysis*

Because of the small sample of patients who experienced all three mood states ( $n = 16$ ), using repeated-measures analyses of variance (ANOVAs) was not possible. There was, nevertheless, a considerably larger sample of patients which experienced two different mood states. To rely on this larger sample of patients, increasing our statistical power, paired *t*-tests between two mood states (mania *vs.* depression, euthymia *vs.* depression, and euthymia *vs.* mania) were used for each item of the AVMS. To avoid increasing the occurrence of type I errors caused by multiple testing, a Bonferroni-Hochberg correction was used for each comparison (Hochberg, 1988).

Differences between mood states in variables such as PANSS and GAF scores were calculated using paired *t*-tests. When differences were found, the *t*-tests were recalculated as one-way repeated-measures ANOVAs to allow the inclusion of covariates with regard to the use of covariates in repeated-measures designs (Delaney and Maxwell, 1981). A one-way repeated-measures ANOVA, with mood state as a factor (manic/depressed), produces the same results as a paired-sample *t*-test. The only difference is that an *F* statistic is calculated instead. Because of limited statistical power,

only one covariate was included in each analysis. Finally, differences in the frequency of psychotic symptoms were explored using McNemar tests.

## Results

Among the 65 patients, only 16 presented euthymia, mania, and depression at different times. Fifteen patients were euthymic and had manic episodes but not depressive episodes. Twenty-six patients were euthymic and had depressive episodes but not manic episodes. Eight patients had both manic and depressive episodes but were never euthymic. Socio-demographic information about the participants is presented in Table 1.

### *Depression vs. mania*

The comparison of manic and depressive episodes included a total of 24 patients. Among these, 16 also presented a euthymic period, which did not occur for the other eight patients.

The clinical characteristics of the mood states in patients who presented both manic as depressive episodes are presented in Table 2. The McNemar test did not reveal significant differences in the frequency of psychosis between depressed and manic states. The total scores on the CGI-BP and GAF were similar across both mood states. In contrast, PANSS-p scores were significantly higher during mania.

Paired-sample *t*-tests indicated differences on 11 items of the AVMS (n.b., the following *p* values were adjusted using Bonferroni-Hochberg corrections): item 1 ( $t_{23} = 4.7, p = .001$ ), item 2 ( $t_{23} = 5.1, p = .001$ ), item 3 ( $t_{23} = 4.6, p = .001$ ), item 5 ( $t_{23} = 4.1, p = .001$ ), item 6 ( $t_{23} = 5.1, p = .001$ ), item 7 ( $t_{23} = 3.6, p = .009$ ), item 11 ( $t_{23} = 3.6, p = .009$ ), item 12 ( $t_{23} = 3.3, p = .018$ ), item 13 ( $t_{23} = 3.9, p = .009$ ), item 15 ( $t_{23} = 6.0, p = .001$ ).

.001), and item 16 ( $t_{23} = 4.7, p = .001$ ). The pattern of responses divided by affective state is presented in Table 3. No changes were found in the results when PANSS score was included as a covariate, and no interactions were found with this factor.

#### *Mania vs. euthymia*

The comparison between manic episodes and euthymic periods included a total of 31 patients. Among these, 16 also presented a period of depression, which did not occur in the other 15 patients.

The clinical characteristics of the mood states in patients who presented both manic episodes and euthymic periods are presented in Table 4. The McNemar test did not reveal any significant differences in the frequency of psychosis between depressed and manic mood states ( $p = .375$ ). The CGI ( $t_{30} = 12.7, p < .001$ ) and PANSS ( $t_{30} = 8.9, p < .001$ ) scores were significantly higher in mania, and GAF scores were significantly lower ( $t_{30} = 8.1, p < .001$ ).

Paired-sample  $t$ -tests did not reveal any significant differences in the AVMS items (in all cases,  $p > .05$ ; Table 5). Significant interactions were found between PANSS scores and items 1, 6, and 13, but no change in the results was found after correcting for multiple testing. The results also remained unchanged after including GAF score as a covariate.

#### *Depression vs. euthymia*

The comparison between depressive episodes and euthymic periods included a total of 42 patients. Among these, 16 also presented a period of mania, which did not occur in the other 26 patients.

The clinical characteristics of the mood states in patients who presented both depressive episodes and euthymic periods are presented in Table 6. The McNemar test did not reveal any significant differences in the frequency of psychosis between depressed and manic mood states. CGI scores were significantly higher in depression, and GAF scores was significantly lower, but no significant differences were found with PANSS scores.

Paired-sample *t*-tests indicated differences on 12 items of the AVMS (n.b., the *p* values were adjusted using Bonferroni-Hochberg corrections): item 3 ( $t_{41} = 4.7$ ,  $p = .001$ ), item 4 ( $t_{41} = 2.7$ ,  $p = .045$ ), item 5 ( $t_{41} = 3.2$ ,  $p = .018$ ), item 6 ( $t_{41} = 4.2$ ,  $p = .001$ ), item 7 ( $t_{41} = 3.9$ ,  $p = .001$ ), item 8 ( $t_{41} = 3.5$ ,  $p = .009$ ), item 9 ( $t_{41} = 3.4$ ,  $p = .016$ ), item 11 ( $t_{41} = 3.4$ ,  $p = .016$ ), item 12 ( $t_{41} = 5.1$ ,  $p = .001$ ), item 13 ( $t_{41} = 5.3$ ,  $p = .001$ ), item 15 ( $t_{41} = 4.6$ ,  $p = .001$ ), and item 16 ( $t_{41} = 4.6$ ,  $p = .001$ ). The pattern of responses divided by affective state is presented in Table 7. When GAF score was included as a covariate, only items 3, 6, and 12 remained significant, but this was not the case after correcting for multiple testing.

## **Discussion**

In the present study, patients in mania evaluated their affective states similarly to when they are in euthymia. However, the evaluation of patients in depression was different from the evaluation during episodes of mania and euthymia on most of the AVMS items. In a previous study (Silva et al., 2013), we also found that bipolar patients in mania tended to not reliably evaluate their affective state, which did not occur with bipolar patients in a depressive episode. Although in the previous study the sample size was larger (165 patients), only one episode of each patient was considered. However, in the present study, the comparisons were performed during mania, depression, or



euthymia in patients who had at least two of these mood states, using a within-subjects design in which participants served as their own controls.

Results from our study indicate that self-evaluation of patients in mania is usually impaired. Reduced reliability in self-assessment in patients in a manic state was also observed at least in three previous studies that performed comparisons between self-completion tools and objective evaluation scales. Gazalle et al. (2007) used a quality of life self-assessment tool, the World Health Organization's Quality of Life Instrument-Short Version (WHOQOL-BREF), with bipolar disorder patients in different affective states (40 manic, 40 depressed, and 40 euthymic) and healthy controls. In parallel, an objective evaluation of the patients' performance was performed using the GAF. The results showed that manic patients reported the same level of overall quality of life compared with euthymic patients and controls, with an elevated level of quality of life compared with depressed patients despite presenting the lowest scores on the GAF. Moreover, Altman et al. (2001) used three self-completion scales to evaluate manic states—the Internal State Scale (ISS), the Self-Report Manic Inventory (SRMI), and the Altman Self-Rating Mania Scale (ASRM)—in patients with acute mania. The findings were compared with evaluations performed by practitioners who used the Clinician-Administered Rating Scale for Mania (CARS-M). The authors found contrasting results between the self-completion scale and the scale completed by the examiner. The SRMI results underestimated the severity of manic symptoms, and the ISS presented low sensitivity, detecting only 45% of the mania cases diagnosed by the CARS-M. Dodd et al. (2009) investigated the reliability of the Mood Disorder Questionnaire (MDQ), a self-completion tool that is used to track bipolar disorder based on the recollection of manic and hypomanic symptoms. The authors studied a community sample of 1,066 women and found that the MDQ detected only 25% of the

cases of bipolar disorder diagnosed based on the Structured Clinical Interview for DSM-IV-TR, Research Version, Non-patient edition.

Greater impairments in insight in the manic phase may be responsible for the lower reliability of the results obtained with self-assessment scales. Indeed, some studies indicated that insight in patients with bipolar disorder appears to be compromised when they are in a manic state as opposed to a depressive state. Yen et al. (2007) followed 65 patients with bipolar disorder for 2 years. They evaluated variations in levels of insight using the Assessment of Insight-Extended Version (SAI-E) in different phases of the disorder. They found that the same patient presented greater impairments in insight during manic periods compared with periods of euthymia or depression. These results are consistent with Dell'Osso et al. (2000). In the latter study, levels of insight were evaluated using the Scale of Unawareness of Mental Disorders (SUMD) in 125 hospitalized bipolar patients who were in different affective states. Manic patients presented lower levels of insight. Finally, Peralta et al. (1998) evaluated levels of insight in 54 bipolar patients in different affective states using the Spanish version of the Manual for Assessment and Documentation in Psychopathology. Patients with depression presented better levels of insight compared with patients with mania.

The results of the present study indicate that the self-assessment of bipolar patients in depression can be more reliable than when the self-assessment occurs during the manic phase. This is in line with evidence, across clinical populations, that depression is associated with adequate insight (David, 2004). The direction of causality, however, remains unclear. It is possible that people with depression show a negative bias when reporting problems, with the term “depressive realism” being suggested to describe the lack of positive or optimistic bias which is usually associated with euthymia (Ghaemi, 1999). As an alternative theory, it is possible that increased insight

of difficulties leads to lower mood state, which would imply that clinical management of insight should take into account consequences in terms of negative mood change (Ghaemi, 1999).

A possible limitation of the current study is that the frequency and intensity of psychotic symptoms was higher during mania than during depression or euthymia. The presence of psychotic symptoms is typically associated with increased impairment in insight (Güçlü et al., 2011). In this sense, Yen et al. (2003) observed that patients in mania with psychotic symptoms showed lower insight about treatment effects than patients with the same diagnosis but without psychotic symptoms. Similarly, Peralta et al (1998) showed that patients with depression without psychotic symptoms had better insight than those with psychotic symptoms. Considering these studies, one cannot rule out the possibility that reduced reliability in self-assessment is related in fact with presence of psychotic symptoms and not with affective state. Another important limitation of the current study is that although insight is a multi-faceted phenomenon, with multiple objects (Markova and Berrios, 2001) with our data it was not possible to determine which aspects of insight were impaired, and whether the difficulties found in insight into affective disorder would also extend to insight about illness, illness consequences or treatment.

## **Conclusion**

The present results indicate that patients with bipolar disorder tend to less reliably evaluate their affective states when they are in a manic state, possibly reflecting important insight impairments that are observed during this phase of the mental disorder. This finding challenges the application of self-completion tools in patients with mania.

## Disclosures

The authors declare no conflicts of interest.

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Table 1 – Sample socio-demographic characteristics

Variable	Bipolar patients (n=65) Mean (SD)/ Range
Age (mv = 0)	45.5 (11.4)/ 25–78
Gender* (mv = 0)	49 / 16
Years of education (mv = 1)	12.8 (2.9)/ 5–18

\* # female/ male; mv – missing values



Table 2. Clinical characteristics of mania and depression ( $n = 24$ ).

	Mania	Depression	<i>p</i> value
	M (SD)	M (SD)	
PANSS-p	13.7 (4.5)	9.1 (2.2)	> .001
GAF	55.3 (9.8)	55.7 (9.1)	.855
CGI-BP	3.6 (0.6)	3.8 (0.8)	.233
Frequency of psychotic symptoms*	3/21	4/20	.999

\**n* with/without symptoms

Table 3. Results (means) of the Analog Visual Mood Scale: mania vs. depression ( $n = 24$ ).

<b>Alert/Sleepy</b>	Mania	3.09 ( $\pm$ 3.00)
	Depression	7.18 ( $\pm$ 2.54)*
<b>Calm/Agitated</b>	Mania	6.18 ( $\pm$ 2.96)
	Depression	3.55 ( $\pm$ 3.01)*
<b>Strong/Weak</b>	Mania	3.28 ( $\pm$ 1.92)
	Depression	7.44 ( $\pm$ 2.27)*
<b>Confused/Clear Ideas</b>	Mania	4.85 ( $\pm$ 2.88)
	Depression	3.99 ( $\pm$ 3.46)
<b>Agile/Clumsy</b>	Mania	3.58 ( $\pm$ 2.84)
	Depression	7.22 ( $\pm$ 2.64)*
<b>Apathetic/Dynamic</b>	Mania	6.77 ( $\pm$ 2.39)
	Depression	2.75 ( $\pm$ 2.65)*
<b>Pleased/Displeased</b>	Mania	3.33 ( $\pm$ 2.86)
	Depression	7.12 ( $\pm$ 3.06)*
<b>Worried/Unconcerned</b>	Mania	3.91 ( $\pm$ 3.04)
	Depression	2.76 ( $\pm$ 2.85)
<b>Difficult thinking/Perspicacious</b>	Mania	5.64 ( $\pm$ 2.83)
	Depression	3.30 ( $\pm$ 3.21)
<b>Tense/Relaxed</b>	Mania	3.23 ( $\pm$ 2.67)
	Depression	4.80 ( $\pm$ 3.69)
<b>Attentive/Distracted</b>	Mania	3.06 ( $\pm$ 2.47)
	Depression	6.35 ( $\pm$ 2.82)*
<b>Incompetent/Competent</b>	Mania	6.73 ( $\pm$ 2.60)

	Depression	3.37 ( $\pm$ 2.58)*
<b>Happy/Sad</b>	Mania	4.00 ( $\pm$ 2.77)
	Depression	7.38 ( $\pm$ 2.64)*
<b>Hostile/Cordial</b>	Mania	5.77 ( $\pm$ 3.46)
	Depression	4.55 ( $\pm$ 3.30)
<b>Interested/Disinterested</b>	Mania	2.41 ( $\pm$ 2.27)
	Depression	7.15 ( $\pm$ 2.79)*
<b>Retracted/Sociable</b>	Mania	6.49 ( $\pm$ 3.22)
	Depression	3.27 ( $\pm$ 3.18)*

\* $p < 0.05$ , different from mania group.

Table 4. Clinical characteristics of mania and euthymia ( $n = 31$ ).

	Mania	Euthymia	<i>p</i> value
	M (SD)	M (SD)	
PANSS	13.8 (3.8)	8.2 (1.6)	> .001
GAF	53.8 (9.5)	73.3 (13.6)	> .001
CGI	3.8 (0.8)	1.5 (0.5)	> .001
Frequency of psychotic symptoms*	6/25	3/28	.375

\**n* with/without symptoms

Table 5. Results (means) of the Analog Visual Mood Scale: mania vs. euthymia ( $n = 31$ ).

<b>Alert/Sleepy</b>	Mania	3.85 ( $\pm$ 3.19)
	Euthymia	5.22 ( $\pm$ 3.09)
<b>Calm/Agitated</b>	Mania	5.34 ( $\pm$ 3.44)
	Euthymia	3.53 ( $\pm$ 3.24)
<b>Strong/Weak</b>	Mania	3.73 ( $\pm$ 2.72)
	Euthymia	4.06 ( $\pm$ 2.90)
<b>Confused/Clear Ideas</b>	Mania	5.81 ( $\pm$ 3.27)
	Euthymia	6.47 ( $\pm$ 3.24)
<b>Agile/Clumsy</b>	Mania	3.55 ( $\pm$ 3.00)
	Euthymia	4.31 ( $\pm$ 3.30)
<b>Apathetic/Dynamic</b>	Mania	6.82 ( $\pm$ 2.79)
	Euthymia	6.16 ( $\pm$ 2.82)
<b>Pleased/Displeased</b>	Mania	3.47 ( $\pm$ 2.98)
	Euthymia	4.37 ( $\pm$ 3.55)
<b>Worried/Unconcerned</b>	Mania	4.29 ( $\pm$ 3.43)
	Euthymia	4.40 ( $\pm$ 3.48)
<b>Difficult thinking/Perspicacious</b>	Mania	5.68 ( $\pm$ 3.24)
	Euthymia	6.36 ( $\pm$ 3.00)
<b>Tense/Relaxed</b>	Mania	3.93 ( $\pm$ 3.30)
	Euthymia	5.12 ( $\pm$ 3.37)
<b>Attentive/Distracted</b>	Mania	2.70 ( $\pm$ 2.77)
	Euthymia	3.87 ( $\pm$ 2.92)
<b>Incompetent/Competent</b>	Mania	7.20 ( $\pm$ 2.52)

	Euthymia	7.18 ( $\pm$ 2.39)
<b>Happy/Sad</b>	Mania	3.65 ( $\pm$ 2.87)
	Euthymia	4.17 ( $\pm$ 3.04)
<b>Hostile/Cordial</b>	Mania	6.13 ( $\pm$ 3.52)
	Euthymia	6.68 ( $\pm$ 3.18)
<b>Interested/Disinterested</b>	Mania	2.24 ( $\pm$ 2.29)
	Euthymia	3.13 ( $\pm$ 3.06)
<b>Retracted/Sociable</b>	Mania	7.25 ( $\pm$ 2.84)
	Euthymia	6.29 ( $\pm$ 3.29)

Note: There were no statistical differences

Table 6. Clinical characteristics of depression and euthymia ( $n = 42$ ).

	Depression	Euthymia	<i>p</i> value
	M (SD)	M (SD)	
PANSS	8.4 (1.8)	7.9 (1.4)	.111
GAF	59.4 (9.6)	74.7 (12.6)	> .001
CGI	3.6 (0.7)	1.5 (0.5)	> .001
Frequency of psychotic symptoms*	3/39	3/39	.999

\**n* with/without symptoms

Table 7. Results (means) of the Analog Visual Mood Scale: depression vs. euthymia ( $n = 42$ ).

<b>Alert/Sleepy</b>	Depression	6.07 ( $\pm$ 3.18)
	Euthymia	4.83 ( $\pm$ 3.02)
<b>Calm/Agitated</b>	Depression	3.90 ( $\pm$ 3.03)
	Euthymia	4.39 ( $\pm$ 2.89)
<b>Strong/Weak</b>	Depression	6.83 ( $\pm$ 2.90)*
	Euthymia	4.01 ( $\pm$ 2.52)
<b>Confused/Clear Ideas</b>	Depression	4.72 ( $\pm$ 3.49)*
	Euthymia	6.43 ( $\pm$ 2.72)
<b>Agile/Clumsy</b>	Depression	5.99 ( $\pm$ 2.87)*
	Euthymia	4.30 ( $\pm$ 2.65)
<b>Apathetic/Dynamic</b>	Depression	3.23 ( $\pm$ 2.88)*
	Euthymia	5.82 ( $\pm$ 2.52)
<b>Pleased/Displeased</b>	Depression	6.43 ( $\pm$ 3.05)*
	Euthymia	4.35 ( $\pm$ 2.93)
<b>Worried/Unconcerned</b>	Depression	2.66 ( $\pm$ 2.87)*
	Euthymia	4.72 ( $\pm$ 3.00)
<b>Difficult thinking/Perspicacious</b>	Depression	3.84 ( $\pm$ 3.16)*
	Euthymia	5.71 ( $\pm$ 2.80)
<b>Tense/Relaxed</b>	Depression	4.41 ( $\pm$ 3.34)
	Euthymia	4.72 ( $\pm$ 2.89)
<b>Attentive/Distracted</b>	Depression	6.16 ( $\pm$ 3.15)*
	Euthymia	4.18 ( $\pm$ 2.41)
<b>Incompetent/Competent</b>	Depression	4.08 ( $\pm$ 3.12)*



	Euthymia	6.57 ( $\pm$ 2.30)
<b>Happy/Sad</b>	Depression	7.27 ( $\pm$ 2.45)*
	Euthymia	4.72 ( $\pm$ 2.62)
<b>Hostile/Cordial</b>	Depression	6.07 ( $\pm$ 3.18)
	Euthymia	6.65 ( $\pm$ 2.71)
<b>Interested/Disinterested</b>	Depression	6.02 ( $\pm$ 3.14)*
	Euthymia	3.37 ( $\pm$ 2.68)
<b>Retracted/Sociable</b>	Depression	3.90 ( $\pm$ 3.11)*
	Euthymia	6.46 ( $\pm$ 2.94)

\* $p < 0.05$ , different from euthymia group.

**O INSIGHT NO TRANSTORNO BIPOLAR: UMA REVISÃO SISTEMÁTICA****INSIGHT IN BIPOLAR DISORDER: A SYSTEMATIC REVIEW**

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*Jornal Brasileiro de Psiquiatria.* 2014; 63(3):242-254.

## Resumo

**Objetivo:** Realizar uma revisão sistemática para compreender que fatores estão relacionados a uma maior ou menor consciência de morbidade no transtorno bipolar (TB), como o insight varia em função do estado afetivo e estabelecer uma comparação com outros transtornos mentais.

**Métodos:** Realizou-se uma revisão sistemática da literatura científica sobre o insight em pacientes com TB. Foram buscados estudos clínicos originais sobre o tema nas bases de dados Medline, ISI e Scielo. Os termos de busca empregados foram: “insight” OR “awareness” AND “bipolar” OR “mania” OR “manic”.

**Resultados:** Foram selecionados 55 artigos. O insight no TB parece ser mais prejudicado do que na depressão unipolar, porém menos do que na esquizofrenia. Com relação ao TB, um menor nível de insight está relacionado à presença de sintomas psicóticos e de alterações cognitivas. Além disso, um comprometimento do insight está associado a uma menor adesão ao tratamento. Por outro lado, uma maior preservação do insight pode estar associada a maior ideação suicida. Finalmente, a fase maníaca cursa com um nível inferior de insight quando comparada à fase depressiva ou de eutimia.

**Conclusão:** No TB, o insight está significativamente prejudicado, especialmente na mania. Diversos fatores clínicos parecem influenciar o nível de insight.

**Palavras-chave:** insight, transtorno bipolar, mania, humor.

## **Introdução**

O insight tradicionalmente era definido como uma “correta atitude para mudanças mórbidas em si mesmo”<sup>1</sup>. Uma menor ou maior consciência quanto a estar doente ou apresentar sintomas ou algum prejuízo psicossocial pode influenciar significativamente a evolução da própria doença, afetando no mínimo a adesão ao tratamento<sup>2-5</sup>.

O insight é investigado em pacientes neurológicos desde o final do século XIX, passando a ser pesquisado em pacientes psiquiátricos apenas mais recentemente. Inicialmente, muitos estudos sobre esse aspecto foram conduzidos com pacientes esquizofrênicos<sup>6-10</sup>. Contudo, nos últimos anos, o insight em pacientes com transtorno bipolar (TB) passou a ser estudado também. Grande parte dos pacientes bipolares mostram déficits em sua consciência sobre estar doente ou em sua consciência sobre sinais ou sintomas específicos<sup>11</sup>.

A falta de insight no TB pode ser bastante prejudicial para a formulação adequada desse diagnóstico. A observação clínica tem indicado que o insight está mais comprometido na mania do que na depressão<sup>12-14</sup>. Nesse sentido, pacientes com TB com frequência não relatam seus sintomas ou episódios maníacos, e, assim, são erroneamente diagnosticados com depressão unipolar<sup>15,16</sup>.

Algumas questões sobre o insight no TB parecem ainda não estar claras. A experiência clínica mostra que maior nível educacional poderia ser um fator favorável a um melhor insight<sup>17</sup>. Nessa linha de raciocínio, é plausível pensar que um maior conhecimento sobre a doença e sobre sua sintomatologia poderia exercer um papel importante sobre melhor nível de insight. Entretanto Güçlü et al (2011)<sup>18</sup> não encontraram correlação entre maior nível educacional e melhor nível de insight em TB. Além disso, possivelmente um maior tempo de doença ou um número maior de

internações ou de episódios afetivos poderia conferir ao indivíduo bipolar maior conhecimento sobre a doença e, conseqüentemente, maior insight. Por outro lado, a associação entre outros fatores sociodemográficos, como gênero ou idade, e o insight parece não ter sido amplamente estudada. Também torna-se importante discutir outras possíveis conseqüências do comprometimento do insight em bipolares além do prejuízo da adesão medicamentosa<sup>2-5</sup>. A possível influência do insight sobre a qualidade de vida ou sobre a evolução da doença, incluindo tentativas de suicídio, precisa ser mais bem compreendida.

Outra questão importante diz respeito à influência de alterações neurocognitivas sobre o insight. Estudo com pacientes com demência mostra que um comprometimento cognitivo está associado a um pior insight<sup>19</sup>. É de conhecimento dos especialistas que pacientes com TB podem cursar com comprometimento cognitivo<sup>20,21</sup>. Os estudos sobre a associação entre alterações cognitivas e insight no TB são ainda pouco numerosos.

Em um estudo anterior<sup>14</sup>, observamos que, no TB, os pacientes em mania se autoavaliaram de forma semelhante àqueles em eutímia. Em contraste, os indivíduos em depressão se autoavaliaram de forma distinta em relação aos que estavam em eutímia ou mania. Tais resultados poderiam ser explicados pelo fato de, na mania, o insight estar mais prejudicado do que nas outras fases do TB. Contudo, esta conclusão precisa ser corroborada por meio de estudos que avaliem o insight nos diferentes estados de humor encontrados nesse transtorno mental.

Outra questão relevante é a comparação, quanto ao nível de insight, do TB com outros transtornos mentais. Pini et al (2004)<sup>22</sup> e Colis et al (2006)<sup>23</sup> relatam que o insight de pacientes com TB é semelhante ao de pacientes esquizofrênicos. Contudo, outros estudos<sup>24,25</sup> observaram que o insight em pacientes com TB era maior do que em esquizofrênicos. Também torna-se importante discutir se a presença de sintomas

psicóticos em fases agudas do TB pode influenciar o nível de insight. Além disso, também não está claro como o insight no TB se diferencia na comparação com outros transtornos mentais, como transtorno esquizoafetivo, depressão unipolar e transtornos de ansiedade.

Diante de tantas questões sobre o insight no TB e da relevância do tema, realizamos uma revisão sistemática de estudos sobre o insight no TB, com o objetivo de compreender as seguintes questões:

- a) Que elementos sociodemográficos e clínicos estão associados ao nível de insight no TB?
- b) Como o insight varia em função do estado afetivo de humor no TB?
- c) Como o insight no TB se compara com outros transtornos mentais em relação ao insight?

## **Métodos**

Realizou-se uma revisão sistemática da literatura científica sobre o insight em pacientes com TB. Foram buscados estudos clínicos originais sobre o tema. Foram utilizadas as bases de dados Medline, ISI, e Scielo. Não houve restrição quanto ao período da publicação. Os termos de busca empregados foram: “insight” OR “awareness” AND “bipolar” OR “mania” OR “manic”.

Os critérios de seleção dos artigos foram:

7. Estudos originais e empíricos.
8. Estudos publicados nas línguas inglesa, francesa, espanhola ou portuguesa.
9. Estudos em que o insight foi avaliado em uma amostra de pacientes com o diagnóstico de TB.

10. Os estudos que apresentassem amostras contendo outros tipos de transtornos mentais além do TB somente seriam incluídos se apresentassem resultados específicos para o grupo de pacientes bipolares.
11. Os estudos selecionados deveriam utilizar uma escala ou algum item específico que aferisse o insight.
12. As amostras deveriam ser constituídas somente por indivíduos adultos, com no mínimo dez pacientes.

Não houve procura por estudos não publicados. Somente um juiz realizou o julgamento dos artigos a serem incluídos/excluídos.

## **Resultados**

Na busca inicial, encontrou-se um total de 510 referências no Medline, 1563 no ISI, e 9 no Scielo, com diversas superposições entre essas bases de dados.

Após a leitura dos resumos das referências encontradas no Medline, selecionaram-se 62 artigos.

Quando se utiliza o termo “bipolar”, diversos estudos sobre outras áreas de conhecimento que não a psiquiatria são selecionados. Estes estudos sobre outras áreas de conhecimento incluem artigos de pesquisa sobre nanotecnologia, engenharia e outras tecnologias, meteorologia, astronomia, eletroquímica, zoologia, entre outras. Pelo menos metade dos estudos selecionados nas bases de dados do Medline estava relacionados a alguma dessas áreas. Este fato também ocorreu na pesquisa na base de dados ISI.

Na base ISI, após a leitura dos resumos dos artigos selecionaram-se 58 artigos. Desses 58 artigos, 50 artigos foram repetidos em relação à base Medline, e, portanto, foram excluídos.

Na base Scielo, após a leitura dos resumos dos artigos selecionaram-se 2 artigos. Um desses artigos já havia sido citado na base ISI, e portanto, foi excluído.

Ao todo, foram selecionados 71 resumos das três bases pesquisadas. Esses 71 artigos foram lidos na íntegra. Um artigo foi excluído por apresentar amostra de bipolares adolescentes. Seis artigos foram excluídos por não apresentarem alguma escala específica de avaliação de insight. E nove artigos apresentaram amostras contendo outros tipos de transtornos mentais, além do TB, e não apresentaram resultados específicos para o grupo de pacientes bipolares, sendo, portanto, excluídos. Não foram encontrados artigos com menos de dez pacientes. Ao final, foram selecionados 55 artigos. O fluxograma de busca e seleção dos artigos aparece na figura 1.

### ***Instrumentos***

Os estudos foram bastante heterogêneos quanto aos instrumentos utilizados para avaliação do insight. Algumas escalas avaliaram itens específicos do insight. Estes itens encontram-se detalhados nas tabelas. As escalas mais utilizadas foram: a Scale of Unawareness of Mental Disorders (SUMD)<sup>26</sup>; o Schedule for Assessment of Insight (SAI)<sup>27</sup> e sua versão estendida (SAI-E)<sup>28</sup>; e o Insight and Treatment Attitudes Questionnaire (ITAQ)<sup>7</sup>.

### ***Comparação entre o TB e outros transtornos mentais***

Os estudos sobre a comparação quanto ao insight entre o TB e outros transtornos mentais são apresentados na tabela 1.

Dezessete estudos<sup>11,22-25,29-40</sup> compararam o insight entre esquizofrênicos e bipolares. Desses, doze estudos<sup>11,22,24,25,29-36</sup> relataram maior nível de insight no TB do



que na esquizofrenia, em pelo menos um dos subtipos de insight avaliado (ou seja, insight global, ou insight sobre a doença ou insight sobre o tratamento ou insight sobre as consequências sociais). Em contraste, cinco estudos<sup>11,23,37-40</sup> não observaram diferença quanto ao nível de insight entre bipolares e esquizofrênicos. Em nenhum dos estudos o insight foi maior na esquizofrenia do que no TB.

Cinco estudos<sup>11,22,23,40,41</sup> compararam o insight entre bipolares e esquizoafetivos. Desses, somente um<sup>22</sup> relatou maior insight sobre consequências sociais em esquizoafetivos do que em bipolares. Os outros quatro estudos<sup>11,23,40,41</sup> não relataram qualquer diferença. Seis estudos<sup>23,29,30,40-42</sup> compararam o insight entre deprimidos unipolares e bipolares. Desses, cinco estudos<sup>23,29,30,40,42</sup> relataram que o insight no TB foi menor do que na depressão unipolar. Em contraste, um estudo<sup>41</sup> relatou que o insight global de bipolares foi igual ao de deprimidos unipolares. Somente um estudo<sup>43</sup> comparou o insight entre TB tipo I e TB tipo II, e observou que o insight global no TB do tipo I foi maior do que do tipo II.

### ***Dados sociodemográficos***

Os seis<sup>17,18,44-47</sup> estudos que investigaram a associação entre insight e dados sociodemográficos são apresentados na tabela 2.

Três estudos<sup>17,18,46</sup> investigaram a relação entre insight e gênero. Desses, um estudo<sup>18</sup> encontrou que o insight é menor no gênero feminino do que no masculino. Porém, um estudo<sup>46</sup> encontrou o oposto e outro<sup>17</sup> não encontrou correlação entre insight e gênero.

Quatro estudos<sup>17,18,44,47</sup> investigaram a relação entre insight e idade. Desses, dois estudos<sup>17,47</sup> observaram que um menor insight está associado a idades mais elevadas. Dois outros estudos<sup>18,44</sup>, contudo, não encontraram correlação entre insight e idade. Por

fim, três estudos<sup>17,45,47</sup> de um total de quatro<sup>17,18,45,47</sup> relataram que um menor insight estava correlacionado a um nível educacional mais baixo, e o outro estudo<sup>18</sup> não encontrou correlação entre nível educacional e insight.

## ***Delineamento***

### ***1. Dados clínicos retrospectivos***

Os catorze<sup>17,18,23,44,46-55</sup> estudos que investigaram a associação entre o insight e dados clínicos retrospectivos são apresentados na tabela 3.

Os três estudos<sup>12,51,52</sup> que investigaram a relação entre insight e história de ideação suicida observaram que um menor insight sobre a doença foi associado a uma história menos frequente de ideação suicida. E os dois estudos<sup>51,52</sup> que investigaram a relação entre insight e história de tentativa de suicídio, também relataram que um menor insight estava associado a uma história menos frequente de tentativa de suicídio. Cinco estudos<sup>17,18,44,49,55</sup> investigaram a relação entre insight e número de hospitalizações prévias. Um menor insight foi associado a um menor número de hospitalizações prévias em três desses estudos<sup>17,49,55</sup>. Entretanto, os dois outros estudos<sup>18,44</sup> não encontraram correlação entre insight e número de hospitalizações prévias. Quatro estudos<sup>44,46,49,50</sup> investigaram a relação entre duração da doença e insight. Tanto uma menor<sup>46,50</sup> quanto uma maior<sup>49</sup> duração da doença foram associados a um menor insight. Um estudo<sup>44</sup> não encontrou correlação entre insight e duração da doença.

Três estudos investigaram a relação entre insight e a ocorrência prévia de sintomas psicóticos<sup>17,46,50</sup>. Um deles<sup>50</sup> relatou que menor insight sobre a doença estava associado a uma história de sintomas psicóticos. Contudo, este mesmo estudo<sup>50</sup> relatou que menor insight sobre sintomas estava associado à ausência de história de sintomas psicóticos. Outro estudo<sup>46</sup> relatou que menor insight sobre sintomas psicóticos estaria

associado a história de sintomas psicóticos. E um estudo<sup>17</sup> não encontrou correlação entre insight e história de sintomas psicóticos.

## ***2. Dados clínicos prospectivos***

Os vinte e nove<sup>2-5,13,17,18,25,29,30,36,40-42,47,49,50,53,56-66</sup> estudos sobre a relação entre o insight no TB e dados psicopatológicos prospectivos são apresentados na tabela 4.

Entre eles, sete estudos<sup>13,29,30,40,49,65,66</sup> investigaram a evolução do nível de insight e a resolução do episódio afetivo agudo, e todos os sete estudos relataram aumento do nível do insight quando ocorria a melhora do episódio afetivo. Os quatro estudos<sup>36,49,59,64</sup> que avaliaram a correlação entre insight e gravidade do episódio afetivo encontraram uma correlação entre menor nível de insight e maior gravidade do episódio afetivo. Os dois estudos<sup>18,65</sup> que avaliaram a relação entre presença de sintomas psicóticos e insight observaram que menor insight estava associado à presença de sintomas psicóticos. Os quatro estudos<sup>2,3,4,5</sup> que avaliaram a relação entre insight e adesão ao tratamento farmacológico observaram que um menor insight estava associado a menor adesão ao tratamento. Os dois estudos<sup>13,63</sup> que investigaram a relação entre insight e hospitalização involuntária observaram que um menor nível de insight estava associado à hospitalização involuntária. Alguns estudos isolados relataram que um menor insight estava também associado a maior hostilidade e menor controle dos impulsos<sup>25</sup>, maior comportamento agressivo<sup>57</sup> e pior evolução clínica<sup>41</sup>. E ainda, um estudo<sup>58</sup> com tomografia computadorizada encontrou que um menor insight estava associado a atrofia subcortical e cortical.

## ***Avaliação neuropsicológica***

Os nove estudos<sup>17,36,38,45,47,50,55,64,67</sup> sobre a relação entre o insight no TB e avaliações neuropsicológicas são apresentados na tabela 5.

Foram encontradas associações entre um menor insight e um maior comprometimento de memória<sup>17,45,47,50</sup> e de aprendizagem emocional<sup>50</sup>, de inteligência geral e de função psicomotora<sup>36,64</sup>, de compreensão e de habilidades perceptivo-motoras<sup>17,47</sup>, de atenção<sup>17,36,64</sup>, de fluência verbal<sup>17,67</sup> e de função executiva<sup>17,45,47</sup>, e ainda de maior velocidade de processamento<sup>50</sup>.

### ***Comparação entre os diversos estados afetivos do TB***

Os nove estudos<sup>22,42,44,49,66,68-71</sup> sobre a comparação quanto ao insight entre os diversos estados afetivos do TB são apresentados na tabela 6.

Todos os seis estudos<sup>42,44,49,66,68,71</sup> que compararam maníacos e deprimidos bipolares relataram que o insight de maníacos era menor do que o de deprimidos bipolares. Sete estudos<sup>22,42,44,49,69-71</sup> compararam pacientes em mania com pacientes em episódio misto. Desses, cinco estudos<sup>22,42,44,69,71</sup> relataram que o insight de maníacos era menor do que o de pacientes em episódio misto; em contraste, dois estudos<sup>12,70</sup> relataram que o insight em pacientes em mania é maior do que o de pacientes em episódio misto. Os dois estudos<sup>44,68</sup> que compararam o insight entre maníacos e eutímicos relataram que o insight dos maníacos era menor do que o dos eutímicos. Quatro estudos<sup>42,44,49,71</sup> compararam pacientes deprimidos e em episódio misto. Desses estudos, apenas um estudo<sup>12</sup> relatou que insight de pacientes em episódio misto era menor do que de deprimidos. Os outros três<sup>42,44,71</sup> não encontraram diferenças significativas. Por fim, apenas um estudo<sup>68</sup> comparou eutímicos e deprimidos e relatou que insight dos eutímicos era igual ao dos deprimidos.

## Discussão

O insight é a capacidade do indivíduo de avaliar criticamente seu estado mental<sup>72</sup>. O presente estudo realizou uma revisão sistemática dos trabalhos que investigaram o insight em pacientes com TB. É importante salientar que o comprometimento do insight parece ser um fenômeno bastante abrangente, sendo encontrado em diversos transtornos mentais, como a esquizofrenia<sup>7-10</sup>, e doenças neurológicas. Estudos sobre doença de Alzheimer comumente empregam o termo anosognosia<sup>73</sup>, termo que designa um comprometimento da capacidade de perceber em si ou nas atividades da vida diária alterações causadas por déficits relacionados ao processo de adoecimento<sup>74</sup>. Esse fenômeno é comumente associado a inúmeras alterações presentes na doença de Alzheimer<sup>73</sup>. Além disso, grande parte dos pacientes com transtorno obsessivo compulsivo (TOC) é parcial ou totalmente incapaz de reconhecer a irracionalidade de seus sintomas, ou seja, apresenta pouco ou nenhum insight<sup>75</sup>.

Dentre as associações estudadas entre o insight no TB e dados sociodemográficos, algumas merecem ser destacadas. Alguns estudos<sup>17,45,47</sup> mostram que um maior nível educacional está relacionado a um maior nível de insight. Provavelmente os pacientes com um maior nível educacional tiveram um maior acesso ao conhecimento sobre a sua doença e sobre as formas de lidar com ela<sup>17</sup>. É possível também que eles possuam um maior status socioeconômico, com acesso a melhores serviços de saúde e formas de tratamento. Estudos em pacientes com demência também ressaltam a importância da escolaridade sobre o insight, pois uma melhor capacidade cognitiva pré-mórbida está relacionada a maior reserva cognitiva e, conseqüentemente, a menor comprometimento da consciência do déficit<sup>76</sup>. Entretanto, o baixo número de

estudos sobre nível educacional não permite concluir que, de fato, o tempo de estudo de um paciente possa ser determinante para um melhor insight.

Três estudos<sup>46,49,50</sup> observaram que uma maior duração ou idade de início da doença mais precoce estariam associados a um maior insight no TB. Estes dados também poderiam reforçar a ideia de que um maior período de convivência com a doença levaria a um melhor conhecimento sobre sua sintomatologia. Estudos com pacientes com TOC<sup>77</sup> indicam que esses fatores estariam relacionados ao insight também nesse transtorno mental. Porém, em função do baixo número de estudos sobre o tema, a relação do nível de insight com esses fatores ainda precisa ser confirmada.

Outra constatação que parece evidente é a de que, no TB, um comprometimento cognitivo possa estar relacionado a um comprometimento do insight. Níveis reduzidos de insight foram associados com piores desempenhos em testes de funções executivas<sup>17,47</sup>, atenção dividida, flexibilidade mental, memória de trabalho, inibição de resposta, resolução de interferência, e resolução de conflito de comportamento, todos mediados pelo lobo frontal. Além disso, um prejuízo na fluência verbal foi significativamente associado com comprometimento do insight<sup>17</sup>. Estes resultados reforçam a noção de que o insight é uma capacidade neurocognitiva, com os achados indicando especificamente disfunção pré-frontal e frontoparietal em pacientes bipolares com baixo insight<sup>17,64</sup>. Os lobos frontais estão envolvidos em habilidades metacognitivas e de autoavaliação, tendo sido implicados na deficiência de insight em diferentes grupos clínicos, como pacientes com doença de Alzheimer<sup>19</sup>. Alguns estudos<sup>17,36,45,50,64</sup> apontaram que um maior comprometimento de memória tem um impacto negativo sobre o nível de insight. Uma capacidade limitada de reter informação na memória verbal ou de se lembrar de comportamentos prévios podem ter um impacto negativo na habilidade dos pacientes de avaliarem seu próprio comportamento e de

tirarem conclusões sobre a anormalidade de seu comportamento<sup>50</sup>. Estes achados estão de acordo com uma extensa literatura que indica baixos níveis de insight em pacientes com comprometimentos de memória, como, por exemplo, na demência<sup>73</sup>. Pacientes com TOC e pouco insight também apresentam um desempenho cognitivo prejudicado<sup>78</sup>.

Os estudos parecem ser unânimes ao apontar que, no TB, uma melhora da sintomatologia da crise cursa com recuperação do insight<sup>13,29,30,40,49,53,66</sup>. Observação semelhante foi relatada em um estudo com esquizofrênicos<sup>10</sup>, no qual ocorreu aumento do insight durante o período entre a hospitalização e a alta. Nesse mesmo sentido, estudos com pacientes com TB<sup>54</sup> e com esquizofrenia<sup>10</sup> mostram que os pacientes, quando estão num período prodrômico, em que os sintomas estão menos intensos, são mais capazes de se queixar das alterações que estão apresentando, o que não acontece quando os sintomas se tornam mais graves. Esses dados apontam que a presença de sintomatologia aguda interfere no nível de discernimento do indivíduo. De fato, dados coletados de estudos, pela presente revisão, mostram uma relação direta entre um menor insight no TB e uma maior gravidade do episódio afetivo<sup>36,49,59,64</sup> ou da quantidade de sintomas maníacos<sup>17,30,32,47</sup>. De forma semelhante, pacientes com doença de Alzheimer apresentam piora da consciência do déficit com a progressão da doença e consequente aumento da gravidade clínica<sup>79,80</sup>. Um maior comprometimento do insight associado a uma maior gravidade da doença também pode ser observada no TOC<sup>81</sup>. Contudo, no TB, a associação entre baixo nível de insight e gravidade clínica poderia ser explicada pelo fato de, nos episódios afetivos mais graves, serem especialmente comuns os sintomas psicóticos, os quais costumam cursar com importante prejuízo no insight<sup>18,46,50,65</sup>.

Dentre os estudos que fizeram comparação do insight de pacientes bipolares com pacientes com outros transtornos mentais, dezessete utilizaram pacientes

esquizofrênicos. Nenhum estudo encontrou que o insight de esquizofrênicos fosse maior do que de pacientes bipolares. Contudo, alguns estudos encontraram níveis de insight semelhantes na comparação entre esquizofrênicos e bipolares<sup>11,22,23,31,36-39</sup>. É importante ressaltar que alguns desses estudos que não distinguiram TB de esquizofrenia utilizaram uma amostra de bipolares com sintomas psicóticos<sup>11,22,38</sup>. Além disso, conforme discutido, a presença de sintomas psicóticos parece ter grande influência sobre o insight<sup>18,65</sup>. A maioria dos estudos, contudo, indica que a esquizofrenia cursa com pior insight do que o TB. É possível que a maior presença de sintomas psicóticos, um maior comprometimento cognitivo e uma pior evolução da esquizofrenia<sup>82</sup> possam ser responsáveis por um pior comprometimento do insight nesse transtorno. Um achado comum entre os estudos é que pacientes deprimidos unipolares apresentam um melhor insight do que pacientes bipolares<sup>23,29,30,40</sup>. Um estudo<sup>43</sup> chamou atenção para o fato de que pacientes bipolares tipo I apresentem maior insight global do que pacientes bipolares tipo II, o que parece refletir a dificuldade, do próprio paciente e das demais pessoas, de se fazer uma distinção entre a hipomania e a normalidade.

Os estudos sobre comparação de insight nas diversas fases afetivas parecem ser unânimes ao apontarem que pacientes em fase maníaca apresentam insight mais comprometido do que pacientes em fase depressiva<sup>42,44,49,66,68,71</sup> ou em eutimia<sup>44,68</sup>. Além disso, um estudo mostrou que o insight de pacientes em fase depressiva é semelhante ao de pacientes em eutimia<sup>68</sup>. A associação entre humor deprimido e insight preservado é observada em diversos grupos clínicos<sup>27</sup>, mas a direção de causalidade não é clara neste caso. Por um lado, um aumento do insight leva ao reconhecimento de problemas, o que causa tristeza. Por outro, pacientes deprimidos podem ser mais realistas, tendo maior apreciação das consequências de seus problemas. Nesse sentido, pacientes com transtorno bipolar que apresentam um episódio depressivo avaliam de



forma mais fidedigna o seu estado de humor do que aqueles que apresentam um episódio maníaco<sup>14,83</sup>. Alguns estudos<sup>22,42,44,69,71</sup> chamaram a atenção para o fato de que pacientes em mania apresentaram pior insight do que o de pacientes em episódio misto. Talvez a presença de sintomas depressivos possa favorecer um menor comprometimento do insight<sup>50</sup>. Três estudos<sup>48,51,52</sup> encontraram que um maior insight está associado a história de ideação ou tentativa de suicídio. Tais achados sugerem que a presença de insight sobre a doença possa ser um fator de risco para suicídio, o que pode estar relacionado à maior ocorrência de sintomas depressivos entre pacientes suicidas. Outra possibilidade seria que ter um nível maior de insight representa saber mais sobre a gravidade e consequências de sua doença e que a morte seria vista pelo indivíduo como uma alternativa menos dolorosa em relação ao TB.

A presença de apenas um juiz para o julgamento dos artigos a serem selecionados configura uma limitação da presente revisão sistemática.

## **Conclusão**

Um menor nível de insight está relacionado à presença de sintomas psicóticos e de alterações cognitivas. Um comprometimento do insight está associado a uma menor adesão ao tratamento. Por outro lado, uma maior preservação do insight pode estar associada a maior ideação suicida. Finalmente, o insight no TB parece ser mais prejudicado do que na depressão unipolar, porém menos do que na esquizofrenia. E também está claro que a fase maníaca cursa com um nível inferior de insight quando comparada à fase depressiva ou de eutímia.

## **Contribuições individuais**

**Rafael de Assis da Silva** – participou do desenho do estudo, da coleta e análise dos artigos selecionados, da redação do manuscrito e aprovou a versão final a ser publicada.

**Daniel C Mograbi** – participou do desenho do estudo, da redação do manuscrito e aprovou a versão final a ser publicada.

**J. Landeira-Fernandez** – participou do desenho do estudo, da redação do manuscrito e aprovou a versão final a ser publicada.

**Elie Cheniaux** – participou do desenho do estudo, da análise dos artigos selecionados, da redação do manuscrito e aprovou a versão final a ser publicada.

### **Conflito de interesses**

Não há conflito de interesses.

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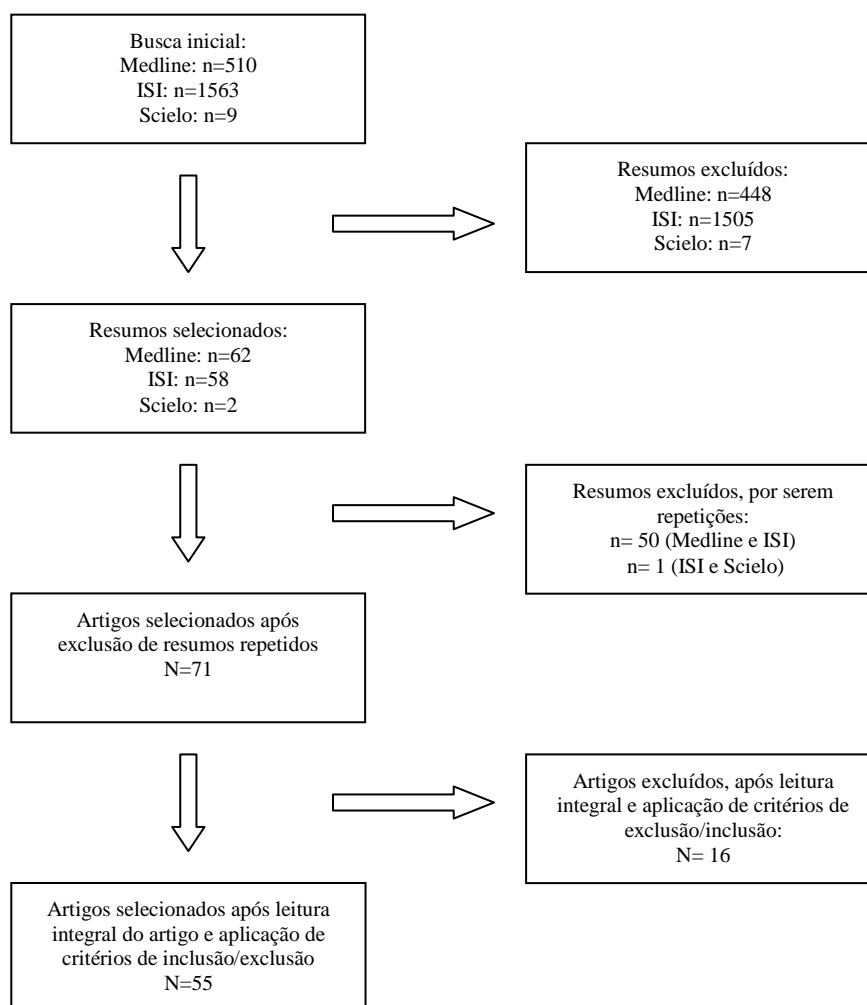
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Figura 1. Fluxograma



**Tabela 1: Comparação entre o transtorno bipolar e outros transtornos mentais**

<b>Estudo</b>	<b>Desenho</b>	<b>Tipo de insight</b>	<b>Instrumento de avaliação</b>	<b>Resultados</b>
Jonsdottir et al (2013)	TB (n=101) vs SCH (n=154)	global	BIS	TB = SCH
Braw et al (2012)	TB eu (n=34) vs SCH (n=32)	sobre a doença e sobre consequências sociais	SUMD e PANSS G12	TB > SCH
Calatayud et al (2012)	TB com psicose (n=43) vs SCH (n=86)	global	PANSS G12	TB > SCH
Govil et al (2008)	TB eu (n=40) vs SCH (n=40)	sobre a doença	SAI-E + SUMD	TB > SCH
Varga et al (2007)	TB (5 mn; 10 Dp; 17 em remissão total; 5 em remissão parcial) vs SCH (n=32)	global	SUMD	TB = SCH
		sobre sintomas		TB > SCH
Colis et al (2006)	TB (n=18 mn) vs TB (n=16 ms) vs TB (n=18 Dp) vs SCHA (n=30) vs SCH (n=12) vs MD (n=56)	global	BCIS	TB = SCH < MD; TB = SCHA
Pini et al (2004)	TB (n=29, mn com psicose) vs TB (n=49, ms com psicose) vs SCH (n=46) vs SCHA (n=32)	sobre a doença	SUMD	TB = SCH = SCHA
		sobre tratamento		TB (ms) > SCH; TB (ms) = SCHA; TB (mn) = SCH; TB (mn) = SCHA
		sobre consequências sociais		TB (ms) > SCH; TB (mn) < SCHA; TB (mn) = SCH; TB (ms) = SCHA
		sobre a doença referente a episódio afetivo prévio		TB (ms) > SCH; TB (mn) > SCH; TB (ms) = SCHA; TB (mn) = SCHA

			sobre tratamento de episódio afetivo prévio		TB (ms) > SCH; SCH < SCHA; TB (mn) = SCH; TB (mn) = SCHA; TB (ms) = SCHA
			sobre consequências sociais de episódio afetivo prévio		TB (ms) > SCH; TB (mn) = SCHA; TB (mn) = SCH; TB (ms) = SCHA
Arduini et al (2003)	TB (n=22 mn com psicose) vs SCH (n=42)	global		SUMD	TB = SCH
Daneluzzo et al (2002)	TB (124 mn, com psicose; 24 ms, psicose) vs SCH (n=86)	global		PANSS G12	TB > SCH
Dell'Osso et al (2002)	TB com psicose (55 mn; 62 ms; 30 Dp) vs MD com psicose (n=30)		sobre a doença, tratamento e consequências sociais	SUMD	TB < MD
Williams et al (2002)	TB (n=33) vs SCH (n=25)	global		SAI	TB = SCH
Yen et al (2002b)	TB eu (n=33, com história de psicose; n=32, sem história de psicose) vs SCH (n=44)	global		SAI-E	TB com psicose = SCH; TB sem psicose > SCH
Masson et al (2001)	TB (n=18, com psicose) vs SCH (n=37)		sobre a doença	SUMD	TB > SCH
Pini et al (2001)	TB com psicose (67 mn; 46 ms; 37 Dp) vs SCH (n=29) vs SCHA (n=24) vs MD (n=30, com psicose)		sobre a doença	SUMD	TB = SCH
			sobre tratamento (atual e retrospectivo)		TB > SCH
Ghaemi et al (2000)	TB I (n=37) vs MD (n=34 sem psicose; n=5, com psicose) vs AD (n=13) vs TB II (n=8) vs SCHA (n=3) vs D (n=1)	global		SUMD	TB = MD < AD

Weiler et al (2000)	TB (n=40) vs SCH (n=81) vs MD (n=33) vs SCHA (n=14) vs outros tr. psicóticos (n=19)	global	ITAQ	TB < MD; TB > outros tr. psicóticos
Pallanti et al (1999)	TB I (n=25) vs TB II (n=32); em remissão total ou parcial	global	SUMD	TB II < TB I
Young et al (1998)	TB (n=21) vs SCH (n=108)	sobre doença e sobre sintomas	SUMD	TB > SCH
Fennig et al (1996)	TB (n=52; com psicose) vs MD (n=35; com psicose) vs SCH (n=86) vs outros tr. psicóticos (n=16)	global	Item modificado de HDS	outros tr. psicóticos < SCH < TB < MD
Michalakeas et al (1994)	TB (n=13 mn) vs SCH (n=42) vs MD (n=22)	global	ITAQ	SCH < TB < MD

TB: transtorno bipolar; mn: mania; ms: episódio misto; dp: depressão; eu: eutímico; SCH: esquizofrenia; SCHF: esquizofreniforme; MD= Transtorno depressivo maior; TDP=transtorno delirante persistente; TPB: transtorno psicótico breve; SCHA: esquizoafetivo; AD: transtornos de ansiedade; D=distímia; NC: controles normais; SUMD: Scale of Unawareness of Mental Disorders; BCIS: Beck Cognitive Insight Scale; PANSS: Positive and Negative Syndrome Scale; HDS: Hamilton Depression Scale; ITAQ: Insight and Treatment Attitudes Questionnaire; <: menor insight que; >: maior insight que; = : sem diferenças quanto ao insight

**Tabela 2: Dados sociodemográficos**

<b>Estudo</b>	<b>Amostra</b>	<b>Instrumento de avaliação do insight</b>	<b>Variáveis</b>	<b>Resultados</b>
Guçlu et al (2011)	104 TB (mn ou ms)	SUMD	insight e gênero insight e idade insight e nível educacional insight retrospectivo sobre a doença e ocupação	< insight: mulheres sem correlação sem correlação < insight: desempregados
Cassidy (2010)	156 TB (86 mn, 29 ms; 14 dp, 27 eu)	item 13 SMS	insight e idade	sem correlação
Dias et al (2008b)	50 TB (eu)	SUMD	insight (global e sobre tratamento) e idade insight (global e sobre tratamento) e nível educacional insight e gênero	< insight: > idade < insight: < nível educacional sem correlação
Yen et al (2008a)	96 TB (eu)	SAI e SAI-E	insight e nível educacional	< insight: < nível educacional
Dias et al (2008a)	70 TB (eu)	SUMD	insight (global e sobre tratamento) e idade insight sobre tratamento e nível educacional	< insight: > idade < insight: < nível educacional
Yen et al (2004)	65 TB (eu)	SAI-E e SAI-E	insight e gênero	< insight: sexo masculino

TB: transtorno bipolar; mn: mania; ms: episódio misto; dp: depressão; eu: eufímico; SMS: Scale for manic states, SUMD: Scale of Unawareness of Mental Disorders; SAI: Schedule for Assessment of Insight, SAI-E: Schedule for Assessment of Insight

**Tabela 3: Dados clínicos retrospectivos**

<b>Estudo</b>	<b>Amostra</b>	<b>Instrumento de avaliação do insight</b>	<b>Variáveis</b>	<b>Resultados</b>
Acosta et al (2012)	102 TB (eu)	SUMD	insight sobre a doença e história de ideação suicida	< insight: < história de ideação suicida
Bressi et al (2012)	120 TB (40 mn; 32 ms; 48 dp)	SUMD	insight (sobre a doença e sobre tratamento) e hospitalizações prévias  insight (sobre tratamento) e duração da doença insight sobre consequências sociais e idade de abertura	< insight sobre a doença: < número hospitalizações prévias < insight sobre tratamento: > número hospitalizações prévias < insight: > duração da doença < insight: < idade de abertura
Guçlu et al (2011)	104 TB (mn ou ms)	SUMD	insight e número de hospitalizações ou número de episódios prévios ou tipo do primeiro episódio	sem correlação
Van der Werf-Eldering (2011)	85 TB (48 dp; 37 eu)	MDIS	insight sobre a doença e história de psicose insight sobre sintomas e história de psicose insight sobre tratamento e duração da doença	< insight : história de psicose < insight: ausência de história psicose < insight: < duração
Cassidy (2010)	156 TB (86 mn, 29 ms; 14 dp, 27 eu)	item 13 SMS	insight e duração da doença ou número de hospitalizações ou idade do primeiro episódio	sem correlação
Dias et al (2008b)	50 TB (eu)	SUMD	insight sobre a doença e número de internações insight sobre consequências sociais e idade de abertura	< insight : < número de internações < insight: > idade de abertura

			insight global e numero de episódios maníacos ou número de episódios depressivos	sem correlação
			insight e história de psicose	sem correlação
Dias et al (2008a)	70 TB (eu)	SUMD	insight global e número de episódios maníacos ou numero de episódios depressivos	sem correlação
			insight sobre doença e história de psicose	< insight: psicose pretérita
Gonzalez (2008)	297 TB	questão realizada ao participante sobre ter uma doença mental	insight sobre a doença e história de ideação ou tentativa de suicídio	< insight: < história de ideação ou tentativa de suicídio
Yen et al (2008c)	96 TB (eu)	SAI e SAI-E	insight e história de ideação ou tentativa de suicídio	< insight: < história de ideação ou tentativa de suicídio
Colis et al (2006)	52 TB (18 mn; 16 ms; 18 dp)	BCIS	insight e episódio afetivo anterior	< insight: episódio anterior de mania
Yen et al (2004)	65 TB (eu)	SAI-E e SAI-E	insight (global e sobre sintomas) e duração da doença	< insight: < duração
			insight (sobre a doença e sintomas) e história de psicose	< insight: história de psicose
Pini et al (2003)	151 TB com psicose (92 sem comorbidade; 35 com TP; 24 com TOC ou FS)	SUMD	insight sobre a doença referente a episódio afetivo prévio e comorbidade	< insight: TB com TP ou TB sem comorbidade
			insight sobre tratamento referente a episódio afetivo prévio e comorbidade	< insight: TB com TP
Lam et al (1997)	40 TB (eu)	IQ	insight e lida ("coping") com pródromos de hipomania	< insight: pior lida ("coping") com pródromos de hipomania
Ghaemi et al (1996)	16 TB (mn)	ITAQ	insight e número de hospitalizações prévias	< insight: < número hospitalizações prévias (associação fraca)

TB: transtorno bipolar; mn: mania; ms: episódio misto; dp: depressão; eu: eufímico; TP: transtorno de pânico; TOC: Transtorno obsessivo-compulsivo; FS: Fobia social; SUMD: Scale of Unawareness of Mental Disorders ; SMS: Scale for manic states ; BCIS: Beck Cognitive Insight Scale ; PANSS: Positive and Negative Syndrome Scale; HDS: Hamilton Depression Scale; ITAQ: Insight and Treatment Attitudes Questionnaire ; YMRS: Young Mania Rating Scale; MADP: Manual for the Assessment and Documentation in Psychopathology; MDIS: Mood Disorder Insight Scale; IQ: Insight Questionnaire



**Tabela 4: Dados clínicos prospectivos**

<b>Estudo</b>	<b>Amostra</b>	<b>Instrumento de avaliação do insight</b>	<b>Variáveis</b>	<b>Resultados</b>
Bressi et al (2012)	120 TB (40 mn; 32 ms; 48 dp)	SUMD	insight e resolução do episódio maníaco ou do episódio misto insight (sobre a doença e consequências sociais) e gravidade do episódio maníaco (escores de YMRS)	< insight: pior evolução de episódio maníaco ou misto  < insight: > gravidade do episódio maníaco
Calatayud et al (2012)	TB com psicose (n=43)	PANSS G12	insight e hostilidade ou controle dos impulsos	< insight: > hostilidade e < controle dos impulsos
Cerit et al (2012)	80 TB (eu)	SAI	insight e funcionamento psicossocial	sem correlação
Cely et al (2011)	124 TB sem psicose	item de questionário criado pelos autores	insight e adesão ao tratamento farmacológico	< insight: < adesão
Guçlu et al (2011)	104 TB (mn ou ms)	SUMD	insight sobre tratamento e presença de psicose	< insight: presença de psicose
Van der Werf-Eldering (2011)	85 TB (48 dp; 37 eu)	MDIS	insight (global, sobre a doença e tratamento) e número de sintomas depressivos	< insight: < número de sintomas depressivos
González-Ortega et al (2010)	173 TB (136 mn; 37 ms)	item 11 da YMRS	insight e comportamento agressivo	< insight: > comportamento agressivo
Sajatovic et al (2009)	140 TB	ITAQ	insight sobre a doença e adesão ao tratamento	< insight: < adesão
Varga et al (2009)	21 TB (1 mn; 7 dp; 13 eu)	SUMD	insight e CT insight e SPECT	< insight global: atrofia subcortical; < insight sobre sintomas: atrofia cortical sem correlação

Copeland et al (2008)	435 TB	escalas adaptadas de Meredith et al., (2002)	insight e adesão ao tratamento farmacológico	< insight: < adesão
Dias et al (2008b)	50 TB (eu)	SUMD	insight sobre a doença e numero de sintomas maníacos insight e presença de sintomas depressivos	< insight : > numero de sintomas sem correlação
Dias et al (2008a)	70 TB (eu)	SUMD	insight sobre doença e sintomas maníacos insight global e qualidade de vida auto-relatada	< insight: > numero sintomas maníacos < insight: < qualidade de vida ambiental e psicológica
Yen et al (2008b)	65 TB (eu)	SAI	insight sobre tratamento e maior gravidade do episódio insight (sobre a doença e sobre sintomas psicóticos) e maior gravidade do episódio	< insight: maior gravidade do episódio sem correlação
Yen et al (2008d)	19 TB (comorbidade uso de álcool) e 40 TB (sem comorbidade uso de álcool)	SAI-E	insight e uso de álcool em TB	sem correlação
Yen et al (2008e)	96 TB (eu)	SAI-E	insight e qualidade de vida	<insight: > qualidade de vida no domínio físico
Yen et al (2007b)	50 TB (eu)	SAI e SAI-E	insight e ajustamento social	< insight: < ajustamento social
Varga et al (2007)	37 TB (5 mn; 10 dp; 17 em remissão total; 5 em remissão parcial)	SUMD	insight global e gravidade clinica	< insight: > gravidade
Schuepbach et al (2006)	95 TB (mn ou ms)	item: falta de insight	insight e admissão internação involuntária	< insight: admissão hospitalar involuntária
Varga et al (2006)	37 TB	SUMD	insight (sobre doença e sobre	< insight: > gravidade

			sintomas) e gravidade da doença	
Yen et al (2005)	60 TB (9 mn; 5 dp; 46 eu)	SAI e SAI-E	insight (global, sobre a doença, sobre tratamento e sintomas psicóticos) e adesão medicamentosa	< insight: < adesão
Pini et al (2003)	151 TB com psicose (92 sem comorbidade; 35 com TP; 24 com TOC ou FS)	SUMD	insight atual (sobre a doença e tratamento) e comorbidade insight e TP	< insight: TB com TP ou TB sem comorbidade < insight: presença de TP
Yen et al (2003)	33 TB (mn)	SAI-E e SAI	insight e resolução do episódio maníaco insight sobre tratamento e psicose	< insight: pior evolução do episódio < insight: presença de psicose
Dell'Osso et al (2002)	147 TB com psicose (55 mn; 62 ms; 30 dp)	SUMD	insight e sintomas maníacos específicos	sem correlação
Ghaemi et al (2000)	45 TB	SUMD	melhora de insight e evolução do tratamento	< melhora de insight: pior evolução
Weiler et al (2000)	40 TB	ITAQ	insight global e resolução da crise	< insight: pior evolução da crise
Peralta et al (1998)	29 TB (21 mn; 7 dp)	MADP	insight e resolução da crise	< insight: pior evolução da crise
Fennig et al (1996)	52 TB	Item modificado de HDS	insight e resolução da crise	< insight: pior evolução da crise
Ghaemi et al (1995)	28 TB (mn)	ITAQ	insight e resolução da crise insight e hospitalização involuntária	< insight: pior evolução da crise < insight: hospitalização involuntária
Michalakeas et al (1994)	13 TB (mn)	ITAQ	Insight global e resolução da crise	< insight: pior evolução da crise

TB: transtorno bipolar; mn: mania; ms: episódio misto; dp: depressão; eu: eufímico; TP: transtorno de pânico; TOC: Transtorno obsessivo-compulsivo; FS: Fobia social; SUMD: Scale of Unawareness of Mental Disorders ; SMS: Scale for manic states ; PANSS: Positive and Negative Syndrome Scale; HDS: Hamilton Depression Scale; ITAQ: Insight and Treatment Attitudes Questionnaire ; YMRS: Young Mania Rating Scale; MADP: Manual for the Assessment and Documentation in Psychopathology; MDIS: Mood Disorder Insight Scale; CT: Computed tomography; SPECT: Single-photon emission computed tomography

**Tabela 5: Avaliação neuropsicológica**

<b>Estudo</b>	<b>Amostra</b>	<b>Instrumento de avaliação do insight</b>	<b>Avaliação neuropsicológica</b>	<b>Resultados</b>
Van der Werf-Eldering (2011)	85 TB (48 dp; 37 eu)	MDIS	CANTAB (RTI, PRM e SWM), SCWT, CVLT, CPT, IQ, ELT	< insight global: < memória; e melhor velocidade de processamento < insight sobre a doença: < memória; < aprendizado emocional; e melhor velocidade de processamento
Dias et al (2008b)	50 TB (eu)	SUMD	WMS (MT, DS, LM), SDMT, TMT-A, SCT, SC-WT, TMT-B, ToH, COWAT, WAIS-R (comprehension, similarities and information sub-tests), BT	< insight global: < performance em comprehension, similarities and information sub-tests, MT, DS, SDMT, TMT-A, TMT-B, SCT (perseverations), ToH, and COWAT
Dias et al (2008a)	70 TB (eu)	SUMD	WMS (MT, DS, LM), SDMT, TMT-A, SCT, SCWT, TMT-B, ToH, COWAT, WAIS-R (comprehension, similarities and information sub-tests), BT	< insight global: < performance em SDMT, TMT-A, TMT-B, SCT (perseverations), ToH, Similarities sub-tests of the WAIS-R, and in LM
Yen et al (2008a)	96 TB (eu)	SAI e SAI-E	WCST, WAIS-III, WMS-III, CPT, COWAT, LCT	< insight (global, sobre a doença, e reconhecimento de fenômeno): função executiva e memória prejudicados
Varga et al (2007)	37 TB (5 mn; 10 dp; 17 em remissão total; 5 em remissão parcial)	SUMD	WCST, SCWT, TMT-A, TMT-B, WAIS-III (DS, DSy, BD, information and similarities), AVLT, IL, GP	< insight global: < performance em WAIS (similarities), GP dominant hand e WAIS (DS)
Varga et al (2006)	37 TB	SUMD	WCST, SCWT, TMT-A, TMT-B, WAIS-III (DS, DSy, BD, information and similarities), AVLT, IL, GP	< insight global: < performance em WAIS (similarities), GP dominant hand e WAIS (DS)
Arduini et al (2003)	22 TB (mn com psicose)	SUMD	WCST	sem correlação
Yen et al (2002a)	34 TB (eu)	SAI-E	WCST, WAIS-R, WMS, TMT, CPT,	< insight: < performance COWAT

Ghaemi et al (1996)	16 TB mn	ITAQ	COWAT, VFDT, LCT. WAIS-R, WMS, COWAT, FTT, screening de linguagem, testes de habilidades construtivas visuais e perceptivas visuais, medidas de funções motoras de auto-controle	(associação fraca) < insight: < anormalidades da memória visual retardada (associação fraca)
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TB: transtorno bipolar; mn: mania; dp: depressão; eu: eutímico; SUMD: Scale of Unawareness of Mental Disorders ; ITAQ: Insight and Treatment Attitudes Questionnaire ; MDIS: Mood Disorder Insight Scale; SAI: Schedule for Assessment of Insight ; SAI-E: Schedule for Assessment of Insight ; AVLT: Auditory Verbal Learning Test; BD: Block Design; BNLN: Neuropsychological Battery Luria-Nebraska ; BT: Bell's Test; CANTAB: Cambridge Neuropsychological Test Automated Battery; COWAT: Controlled Oral Word Association Test ; CPT: Continuous Performance Task; CVLT: California Verbal Learning Test; DS: Digit Span; DSy: Digit Symbol; ELT: Emotional Learning Task; FTT: Finger Tapping Test; GP: Grooved Pegboard; IL: Incidental Learning; IQ: Intelligence Quotient; LCT: Line Cancellation Test; LM: Logical memory; MT: Mental Tracking; PRM: Pattern Recognition Memory; RTI: Reaction Time Test; SCT: Stroop Colour Test; SC-WT: Stroop Colour-Write Test; SCWT: Stroop Colour and Word Test; SDMT: Symbol Digit Modalities Test; SWM: Spatial Working Memory; TMT: Trail Making Test ; TMT-A: Trail Making Test part A; TMT-B: Trail Making Test part B; ToH: Hanoi Towers Test; VFDT: Visual Form Discrimination Test ; WAIS-III: Wechsler Adult Intelligence Scale - third edition; WAIS-R: Wechsler Adult Intelligence Scale-Revised ; WCST: Wisconsin Card Sorting Test; WMS: Wechsler Memory Scale ; WMS-III: Wechsler Memory Scale - third edition

**Tabela 6: Comparação entre os diversos estados afetivos do transtorno bipolar**

<b>Estudo</b>	<b>Amostra e desenho</b>	<b>Tipo de insight</b>	<b>Instrumento de avaliação</b>	<b>Resultados</b>
Bressi et al (2012)	120 TB: 40mn vs. 32ms vs. 48 dp	sobre a doença  sobre tratamento sobre consequencias sociais	SUMD	mn < dp; ms < dp  ms < dp ms < mn < dp
Cassidy (2010)	156 TB: 86 mn vs 29 ms vs 14 dp vs 27 eu	global	item 13 SMS	mn < dp; mn < ms; mn < eu
Yen et al (2007a)	65 TB acompanhados por 2 anos (16: um episódio mn; 3: um episódio dp; 6 mais de um episódio mn ou dp)	global	SAI-E	mn < eu = dp
Pini et al (2004)	78 TB com psicose: 29 mn vs 49ms	sobre consequências sociais	SUMD	mn < ms
Dell’Osso et al (2002)	147 TB com psicose: 55 mn vs 62 ms vs 30 dp	sobre a doença  sobre tratamento sobre consequencias sociais	SUMD	mn < dp  mn < ms; mn < dp mn < ms; mn < dp
Cassidy et al (2001)	53 TB: 42 mn vs 11 ms	global	ITAQ	mn < ms
Rossi et al (2000)	124 mn vs 22 ms	global	PANSS G12	ms < mn
Dell’Osso et al (2000)	125 TB psicóticos: 62 mn vs 28 ms vs 35 dp	sobre consequências sociais	SUMD	mn < dp; mn < ms
Peralta et al (1998)	28 TB: 21 mn vs 7 dp	global	MADP	mn < dp

TB: transtorno bipolar; mn: mania; ms: episódio misto; dp: depressão; eu: eufímico; SUMD: Scale of Unawareness of Mental Disorders ; SMS: Scale for manic states ; BCIS: Beck Cognitive Insight Scale ; PANSS: Positive and Negative Syndrome Scale; HDS: Hamilton Depression Scale; ITAQ: Insight and Treatment Attitudes Questionnaire ; YMRS: Young Mania Rating Scale; MADP: Manual for the Assessment and Documentation in Psychopathology; MDIS: Mood Disorder Insight Scale; IQ: Insight Questionnaire ; <: menor insight que; >: maior insight que; = : sem diferenças quanto ao insight

## **INSIGHT ACROSS THE DIFFERENT MOOD STATES OF BIPOLAR DISORDER**

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*Psychiatric Quarterly*. 2015; DOI 10.1007/s11126-015-9340-z.



**Abstract**

**Background:** In bipolar disorder, levels of insight vary as a function of the mood state and appear to influence pharmacology compliance, quality of life, the presence of suicidal ideations, and aggressive behavior.

**Objective:** To establish a comparison among different mood states in bipolar with regard to level of insight.

**Methods:** Forty-eight patients were evaluated in different affective states (i.e., euthymia, mania, depression, and mixed state). Identifying information, sociodemographic data, and clinical records were recorded. The following scales were applied: Hamilton Depression Scale, Young Mania Rating Scale, Positive And Negative Syndrome Scale positive symptoms subscale, and Global Assessment of Functioning and Clinical Global Impressions Scale for use in bipolar disorder. Insight was evaluated using items 11 and 17 of the Young Mania Rating Scale and Hamilton Depression Scale, respectively.

**Results:** Insight in bipolar disorder was found to be more compromised during manic phases and mixed episodes than during periods of depression or euthymia. The factors associated with lower levels of insight were the following: shorter illness duration, older age, and greater severity in mania; the female gender and older age in depression; and shorter illness duration and more severe depressive symptoms in mixed episodes.

**Conclusion:** In the same individual, levels of insight vary as a function of the affective state over the course of bipolar disorder and appear to be influenced by several clinical variables.

**Keywords:** insight; bipolar disorder; mania; depression; euthymia.

## **Introduction**

Insight is of great clinical relevance in the evolution of bipolar disorder. Impairments in insight may be implicated in the lack of pharmacological treatment compliance and consequently a worse evolution of the disorder [1-4]. Poor insight is associated with an absence of being able to recognize aggressive and impulsive behavior and can lead the patient to be more exposed to risk situations [5,6]. However, high levels of insight appear to be associated with an increase in suicidal ideation [7-9] or greater stigmatization, which may result in poorer quality of life [10].

The topic of symptom awareness has been investigated in neurological patients since the late 19th century. It has only been investigated in psychiatric patients more recently. Initially, many studies on insight were conducted with schizophrenia patients [11]. However, recent years have seen an increase in interest in studies on insight in bipolar patients. The high prevalence of the disease and lack of insight about the disease in bipolar disorder and schizophrenia have been reported in several studies [12-15]. Most bipolar patients who have been studied displayed deficits in their awareness of being ill or a lack of awareness of specific signs and symptoms [15].

The objective of the present study was to evaluate insight in different phases of bipolar disorder and evaluate the sociodemographic and clinical factors that may be related to possible variations in levels of insight.

## **Material and methods**

### *Sample*

The study was performed in an ambulatory research center at the Instituto de Psiquiatria, Universidade Federal do Rio de Janeiro, between November 2003 and

November 2011. Not all of the patients participated in the study at the same time, and they were not necessarily evaluated during the entire period of 8 years.

The inclusion criteria were the following: diagnosis of type 1 or type 2 bipolar disorder, age  $\geq 18$  years, signed informed consent form, and the occurrence of four different affective states (i.e., euthymia, mixed episode, mania, and depression) during the study period. The local ethics committee approved the study.

### *Clinical evaluation*

Identifying information, sociodemographic data, and clinical variables were recorded for each patient. The psychiatric diagnosis was based on the criteria of the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition, text revision (DSM-IV-TR), using the semi-structured Structured Clinical Interview for DSM (SCID) [16]. The clinical and sociodemographic data included gender, age, education level, age at disease onset, time to diagnosis of bipolar disorder, illness duration, number of hospitalizations, number of manic episodes, number of depressive episodes, polarity of the first affective episode, history of psychotic symptoms, and number of suicide attempts.

At each consultation, the affective state of each patient was evaluated using the DSM-IV-TR criteria for a manic episode, depressive episode, and mixed episode. The following scales were applied: Hamilton Depression Scale (HAM-D) [17], Young Mania Rating Scale (YMRS) [18], Positive And Negative Syndrome Scale positive symptoms subscale (PANSS-p) [19], Global Assessment of Functioning (GAF) [20], and Clinical Global Impressions Scale for use in bipolar illness (CGI-BP) [21]. The HAM-D is composed of 17 items that assess depressive symptoms. The YMRS is composed of 11 items that assess manic symptoms. The PANSS-p evaluates the

presence and intensity of psychotic symptoms and other positive symptoms. In the present study, we considered an affective episode as psychotic when there was at least one delirium or hallucination of any nature. The CGI-BP presents a global score relative to the severity of the affective episode. The GAF evaluates overall social, occupational, and mental functioning.

All of the patients were evaluated at least once in each affective state of bipolar disorder (i.e., euthymia, mania, depression, and mixed episode). Because the patients could present the same type of affective episode more than once, we considered for such a case the evaluation relative to the most severe episode, which was the one with the highest global score on the CGI-BP. In case of a tie in this criterion, the total scores on the YMRS and HAM-D for manic and depressive episodes, respectively, determined which one was the most severe. In the case of mixed episodes with the same score on the CGI-BP, the tiebreaker was the scores on the YMRS and HAM-D. Finally, when more than one episode of euthymia occurred, we considered the first episode. This chronological criterion could also be used for affective episodes for which tied scores were still occurring after the second tiebreaker criterion.

### *Insight*

In the absence of a specific questionnaire to measure insight, a derived score was calculated considering questions from the HAM-D and YMRS. Specifically, the insight score was calculated by adding the scores of item 17 of the HAM-D (Critic/consequence of the disease) and item 11 of the YMRS (Insight/discernment). Considering that the item from the YMRS ranged from 0 to 4 while the item from the HAM-D ranged from 0 to 2, scores from the YMRS item were divided by 2 to avoid biasing the scale towards insight about manic symptoms. This led to a single score

measuring loss of insight about both depressive and manic symptoms, ranging from 0 to 4, with higher scores indicating poorer insight.

### *Statistical analysis*

We performed a comparison among the different affective states in bipolar disorder—mania, mixed episode, depression, and euthymia—with regard to the level of insight. Additionally, correlations among the different levels of insight and sociodemographic data and clinical variables were determined.

Data analysis was carried out using SPSS software (version 20.0). Descriptive statistics were used to illustrate the sample characteristics. Changes in clinical characteristics according to mood state were tested with repeated measures ANOVAs, followed by pairwise comparisons; for non-parametric variables Cochran's Q test was used as an alternative, with McNemar tests for pairwise comparisons. Stepwise regression models were calculated separately for each mood state to explore the relationship between loss of insight and demographic (educational level, gender and age) and clinical variables (illness duration, number of hospital admissions, presence of psychotic symptoms, HAM-D and YMRS scores; the last three variables were measured in each mood state). To power the regression models, number of suicide attempts was excluded due to missing data. To avoid inflation of type II error and exclusion of predictors involved in suppressor effects, we used a backward regression method. Best models were selected on the basis of explained variance ( $R^2$ ), cross-validity (adjusted  $R^2$ ) and Akaike's Information Criterion (AIC)

## **Results**

### *Participants and setting*

The initial sample was composed of 165 patients with a diagnosis of bipolar disorder. Among them, 48 patients were evaluated in all four affective phases—euthymia, mania, depression, and mixed state—and constituted the final sample.

### *Sample characteristics*

Sociodemographic and clinical characteristics of participants are described in Table 1. Most participants were middle-aged men with low to medium levels of educational achievement. The patients became ill in an average of approximately two decades and presented a history of several affective episodes, despite a low number of hospitalizations.

Clinical evaluations related to each mood state are described in Table 2. There were significant differences in CGI-BP global scores ( $F(3, 141) = 147.55, p < .001$ ), with higher scores in all mood states in comparison with euthymia ( $p < .001$  in all cases), but no differences between depression and mania ( $p = .065$ ) or mixed state ( $p = .999$ ), and higher scores in depression in relation to mixed state ( $p = .044$ ). There were also significant differences in YMRS scores ( $F(3, 141) = 103.11, p < .001$ ), with higher scores in mania and mixed state in relation to euthymia and depression ( $p < .001$  in all cases), and also significant differences between mania and mixed state ( $p = .011$ ) and euthymia and depression ( $p = .001$ ). Analysis of HAM-D scores revealed differences between mood states ( $F(3, 141) = 75.61, p < .001$ ), with significantly higher scores in depression and mixed state in relation to euthymia and mania ( $p < .001$  in all cases), higher scores in depression in comparison with mixed state ( $p < .001$ ), and in mania in relation to euthymia ( $p = .001$ ).

Results of Cochran's Q test suggested a significant variation in presence of psychotic symptoms across mood states ( $Q(3) = 19.19, p < .001$ ). Follow-up McNemar

tests indicated lower frequency of psychotic symptoms in euthymia in comparison to mania ( $p=.002$ ), depression ( $p=.031$ ) and mixed state ( $p<.001$ ), and higher frequency in mixed state in relation to depression ( $p=.035$ ); there were no significant differences between mania and depression ( $p=.180$ ) or mixed state ( $p=.629$ ). Finally, insight also changed significantly across mood states ( $F(3, 141) = 11.60, p = .003$ ), with poorer insight in mania and mixed state in relation to euthymia (respectively,  $p < .001$  and  $p = .007$ ) and depression (respectively,  $p < .001$  and  $p = .001$ ). There were no significant differences between mania and mixed state ( $p = .360$ ), or between euthymia and depression ( $p = .164$ ).

### *Regression models*

#### Mania

All regression models significantly predicted loss of insight during mania ( $p$ -values ranging from .016 to .001). Considering the highest explained variance ( $R^2$ ) and highest cross-validity (adjusted  $R^2$ ), the best model included gender, age, illness duration, presence of psychotic symptoms, CGI, HAM-D and YMRS scores. Upon inspection of predictors, only age, illness duration and YMRS gave a significant contribution to the model (Model 1, Table 3). Thus, older age, a shorter illness duration, and higher scores on the YMRS were associated with poor insight. Adjusted  $R^2$  and  $R^2$  values dropped slightly after exclusion of non-significant predictors in the remaining models, but AIC scores improved in these more parsimonious models (Models 2 and 3, Table 3). There was no evidence of collinearity in the data, with VIF and tolerance values within the recommended range [22].

#### Depression

Three regression models significantly predicted loss of insight in the depressive phase (p-values from .030 to .014). The model with the best trade-off between explained variance ( $R^2$ ) and cross-validity (adjusted  $R^2$ ) included CGI, number of hospital admissions, age and gender, but with only the latter two being significant predictors (Model 1, Table 4). The model with the best AIC score included only age and gender (Model 3, Table 4). Thus, older age and the female gender were associated with poor insight. There was no evidence of collinearity in the data.

#### Mixed state

All regression models significantly predicted loss of insight in the mixed state (p-values ranging from .042 to .002). Two models (Models 1 and 2, Table 5) showed high explained variance ( $R^2$ ) and cross-validity (adjusted  $R^2$ ) and included YMRS scores, HAM-D scores, illness duration, age, number of hospital admissions and educational level; the latter variable was excluded in the second model, which led to better cross-validity and AIC. In both models, only illness duration and HAM-D scores were significant predictors, with a trend for the effect of YMRS scores. Thus, a shorter illness duration and higher scores on the HAM-D were associated with poorer insight. Additionally, to a lesser extent, higher total scores on the YMRS were associated with poorer insight. There was no evidence of collinearity in the data.

#### Discussion

In the present study, insight in bipolar patients was found to be more impaired in mania and mixed episodes than in depression and euthymia. No difference in the levels of insight was found between the depressive and euthymic phases. Consistent with these results, our previous studies [23,24] found that bipolar individuals in the maniac phase



evaluated their affective state similarly to when they were in euthymia. However, the same patients evaluated their affective states during depression differently from when they were in euthymia or mania. Therefore, we conclude that lower insight can interfere with self-assessment in bipolar patients in mania. The advantages of the present study are the fact that insight was evaluated as a specific variable and that each patient was evaluated in all four distinct affective states: mania, mixed episode, depression, and euthymia. This allowed us to consider the patient as his/her own control.

Studies that have compared insight in different affective phases of bipolar disorder have unanimously reported that patients in the manic phase present greater impairment in insight compared with patients in the depressive phase [13,25-29] or euthymic phase [25,26]. One study found that insight in patients in the depressive phase was similar to patients in euthymia [26]. An association between depressed mood and the preservation of insight is observed in several clinical groups [12], but the direction of causality is unclear. If an increase in insight leads to recognition of the problem, which causes sadness, then depressed patients may be more realistic and better able to apprise the consequences of their problems or report more difficulties in function associated with the mood state [23].

We did not find significant differences in insight between patients in mania and mixed episodes. However, in some studies [25,28-31], patients in mania presented poorer insight than patients in mixed episodes. Perhaps in the maniac state the presence of depressive symptoms may be associated with better levels of insight [32].

In the present study, we observed that a longer illness duration was associated with better levels of insight in patients in manic and mixed states, corroborating previous studies [32,33] that used scales that are specific to the evaluation of insight. In the study by Yen et al. (2004), bipolar patients were in remission, whereas in the study

by Van der Werf-Eldering et al. (2011), the patients were either in remission or in a depressive state. In contrast, Bressi et al. (2012) reported that a longer illness duration was associated with less insight into treatment.

The present results indicated that older age is associated with poorer insight in the manic and depressive phases, which is consistent with previous studies [34,35]. However, Güçlü et al. (2011) and Cassidy (2010) did not find a correlation between insight and age.

The present study demonstrated that females have poorer insight during the depressive phase but not during periods of mania, a mixed state, or euthymia. Güçlü et al. (2011) reported similar results. However, Güçlü et al. (2011) utilized a sample of bipolar patients in mania or a mixed state. The study by Yen et al. (2004) assessed bipolar patients in remission and found an opposite result: male bipolar patients in remission presented poorer insight.

Another finding of the present study was that greater symptom severity, based on the YMRS, was associated with poorer insight during a manic episode. With regard to mixed episodes, we observed a trend toward an association between higher scores on the YMRS and poorer insight. Previous studies indicated that a greater severity of the affective episode was associated with lower insight about treatment [37], the disorder [27], and the social consequences [27]. In the present study, we also found that higher scores on the HAM-D during mixed episodes were predictive of poorer insight.

The present study did not find an association between the presence of psychotic symptoms and levels of insight in mania. However, Güçlü et al. (2011) and Yen et al. (2003) reported that the presence of psychotic symptoms was associated with lower insight about treatment.

The present study has some limitations. We only considered one assessment of each affective state, the one in which the symptoms were most intense. However, one cannot affirm that the most severe episode is indeed representative of the set of episodes of the same affective polarity. Additionally, in a minority of cases, the PANSS-p and GAF were not applied during the evaluation of some affective episodes or periods of euthymia, which limited the comparisons. For a more precise evaluation of insight in bipolar disorder, using a specific and multidimensional scale rather than a single item of the YMRS and HAM-D would be important. Currently, our research group is translating and adapting to Brazilian Portuguese a scale that is specific for the evaluation of insight in mood disorders [39], the Insight Scale for Affective Disorders (ISAD), which will allow us to a more comprehensively study insight in bipolar disorder. However, the present study has the advantage of evaluating the same patient in all four affective states, which allowed the same patient to serve as his/her own control.

## **Conclusion**

The present study found that insight in bipolar disorder is more compromised during the phases of mania and mixed episodes than during depression and periods of euthymia. The following factors appear to be associated with lower levels of insight in bipolar disorder: a shorter illness duration, older age, and greater severity of the episode in mania; the female gender and older age in depression; and a shorter illness duration and severe depressive symptoms in mixed episodes.

## **Conflict of Interest**

The authors declare no conflict of interests.

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## Tables

Table 1 – Sociodemographic and clinical characteristics of participants

Variable	Bipolar patients (n = 48)
	Mean (SD), Range
Age (mv = 0)	44.0 (12.2), 24–76
Education (mv = 0)	11.7 (3.6), 4–18
Gender* (mv = 0)	12/36
Illness duration (in years) (mv = 0)	18.9 (12.8), 0–48
# of hospital admissions (mv = 0)	2.17 (3.3), 0–17
# of manic episodes (mv = 1)	12.4 (16.7), 1–100
# of depressive episodes (mv = 0)	13.1 (22.2), 1–100
# of suicide attempts (mv = 8)	0.72 (1.3), 0–6

\* # female/male; mv – missing values

Table 2 – Clinical evaluations related to each mood state

Variable	Euthymia	Mania	Depression	Mixed state
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
CGI-BP global (mv = 0)	1.2 (0.4)	4.3 (1.3)	4.7 (0.9)	4.3 (0.8)
YMRS (mv = 0)	2.4 (3.0)	20.1 (8.1)	5.2 (4.7)	16.3 (7.0)
HAM-D (mv = 0)	4.1 (3.1)	6.8 (5.1)	17.7 (6.5)	12.7 (5.8)
Presence of psychotic symptoms (mv = 0)*	46/2	34/14	40/8	31/17
Loss of insight (mv = 0)	0.10 (0.30)	0.58 (0.72)	0.03 (0.16)	0.46 (0.83)

mv – missing values ; \* no/yes

Table 3 – Regression models with predictors for loss of insight in mania

Variable	Model 1		Model 2		Model 3	
	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value
YMRS	.66	.013	.60	.020	.43	.004
Illness duration	-.63	.001	-.67	>.001	-.64	.001
Age	.41	.023	.41	.021	.39	.026
Psychotic symptoms	.24	.114	.23	.080	.22	.107
Gender	.14	.272	.16	.205	.17	.172
CGI-BP	-.24	.318	-.19	.408		
HAM-D	-.14	.321				
Model p-value		.004		.003		.002
$R^2$		.39		.37		.36
<i>Adjusted R<sup>2</sup></i>		.28		.28		.28

Table 4 – Regression models with predictors for loss of insight in depression

Variable	Model 1		Model 2		Model 3	
	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value
Gender	.35	.015	.33	.017	.33	.014
Age	.29	.049	.30	.042	.23	.019
CGI-BP	-.16	.281	-.19	.189		
# of admissions	.11	.418				
Model p-value	.030		.017		.014	
$R^2$	.22		.20		.17	
<i>Adjusted R<sup>2</sup></i>	.14		.15		.13	

Table 5 – Regression models with predictors for loss of insight in mixed state

Variable	Model 1		Model 2	
	$\beta$	p-value	$\beta$	p-value
Illness duration	-.37	.036	-.39	.024
HAM-D	-.36	.008	-.35	.008
YMRS	.25	.061	.25	.055
Age	.20	.244	.21	.220
# of admissions	.18	.194	.20	.117
Education level	-.06	.696		
Model p-value	.007		.003	
$R^2$	.34		.34	
<i>Adjusted R<sup>2</sup></i>	.24		.26	

**CROSS-CULTURAL ADAPTATION, VALIDATION AND FACTOR  
STRUCTURE OF THE INSIGHT SCALE FOR AFFECTIVE DISORDERS**

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*Journal of Affective Disorders.* 2015; 178:181-187.

**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 was 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.

Keywords: insight, awareness, bipolar disorder, scale, validation, adaptation, factor analysis.



## **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 et al., 1960). Other studies (Amador et al., 1994; Dell'Osso et al., 2000; Dias et al., 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 & 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 (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.

## **Material and methods**

### **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.

## **Validation**

### ***Participants***

The study was carried out in a research clinic and in an outpatient's 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.

### ***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 et al., 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.

### ***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 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 & 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 & 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, Allen & Scarpello, 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, the Schmid-Leiman orthogonalization procedure (1957) 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 other and with the higher-order factor. Therefore, factor loadings equal to or greater than .25 are generally considered satisfactory (Wolff & Preising, 2005).

## Results

The sample was composed of 95 patients with the diagnosis of Type 1 bipolar disorder. None of the patients obtained a diagnosis of type II bipolar disorder. Socio-demographic and clinical characteristics of the sample are described in Table 1.

The mean score for each ISAD-BR item, as well as the level of agreement between raters, can be seen in Table 2. ICC values were very high, indicating good inter-rater reliability. Cronbach's alpha for the full scale was high ( $\alpha = .90$ ), indicating excellent internal consistency (George & Mallery, 2003); consistency remained good when calculating separately Cronbach's alpha for the items 1 to 3 ( $\alpha = .77$ ) and 4 to 17 ( $\alpha = .89$ ). The mean of corrected item-total correlation coefficients was moderate ( $r = .55$ ), ranging from  $r = .77$  for item 9 ("Awareness of suffering from fatigue or an excess of energy") to  $r = .18$  for item 15 ("Awareness of having symptoms of confusion-disorientation"). Items 6 and 15 were excluded from further analyses considering their low correlation and the fact that their removal would lead to a slight increase in internal consistency of the scale ( $\alpha = .91$ ).

### *Exploratory Factor Analysis*

The KMO analysis revealed a value of .86, indicating good sampling adequacy and that the correlation matrix was suitable for factor analysis. The examination of scree plot, inspection of eigenvalues and parallel analysis led to a four-factor solution which accounted for 69.8% of the variance. Results from the structure and pattern matrix were similar, with the latter being reported here because these are typically more conservative and not inflated by overlap between factors (Brown, 2006; Hatcher, 1994). Table 3 depicts the pattern of rotated factor loadings for this four-factor solution.

The four-factor solution of the ISAD-BR presented a well-defined structure, with all items having salient loadings in a single factor exclusively. There were no hyperplane items. The first factor was responsible for 39.8% of the variance with an eigenvalue of 6.8. This factor consisted of seven items related to specific BD symptoms, covering in particular the activity/energy domain. Factor loadings were high and yielded excellent internal consistency ( $\alpha = .81$ ). The second factor explained 9.1% of the variance with an eigenvalue of 1.5, and incorporated four items associated with awareness of having a disorder (awareness of illness). Factor loadings were moderate to high, and internal consistency was good ( $\alpha = .78$ ). The third factor was responsible for 7.8% of the variance with an eigenvalue of 1.3, and was composed of two items related to awareness of self-esteem and feelings of pleasure. It had high factor loadings and acceptable internal consistency ( $\alpha = .67$ ). Finally, the fourth factor explained 7.6% of the variance, with an eigenvalue of 1.3, and contained two items associated with awareness of social functioning and relationships. It showed moderate to high factor loadings and acceptable internal consistency ( $\alpha = .63$ ).

#### *Hierarchical Factor Analysis*

The second order factor analysis lead to a one factor solution with eigenvalue equal to 2.4, accounting for 60.9% of the variance, and three other factors with eigenvalues smaller than one (.84, .44 and .29, respectively). These results suggest a hierarchical factor structure for the ISAD-BR, with the four lower-order factors loading on a single higher-order factor. Table 4 shows that the hierarchical matrix had a good simple structure. The higher-order factor accounted for 65.0% of the variance and yielded salient loading on all items. The four lower-order factors explained relatively less of the variance, with the exception of two items which had higher loadings on

Factor III and IV than in the higher-order factor. Item loadings across the lower-order factors had a pattern similar to that observed in Table 3, suggesting the same factor labels, the exception being some items from Factor I which loaded heavily on the higher-order factor. There were no hyperplane items, but item 5 loaded both on Factor III and IV.

#### *Correlations between ISAD factors*

As shown in Table 5, ISAD-BR lower-order factors showed moderate correlations with each other. Specifically, Factor IV showed overall weak correlations with other factors, while correlations between Factors I, II and III were moderate to strong. In a similar manner, the higher-order factor showed strong correlations with lower-order factors I, II and III, but a weak to moderate correlation with factor IV.

#### *Relationship between ISAD factors and clinical variables*

Results of the correlational analysis can be seen in Table 6. In terms of clinical characteristics, higher mania (YMRS) and illness severity (CGI-BP) were associated with poorer insight, for the total score and all subscales. There was a trend for more preserved insight of clinical condition (Factor II) with higher depression, but this did not reach statistical significance. Comparison between the ISAD-BR and insight items of the YMRS and HAM-D scales indicated positive correlations with item 11 of the YMRS for the total score and all subscales of the ISAD-BR, but this relationship was not found with item 17 of the HAM-D, despite a trend for a positive relationship in the case of Factor III.



## Discussion

Research on insight in patients with bipolar disorder has been carried out by groups in several countries (Silva et al., 2014b; Látalova, 2012). Various scales or specific items of measurement of insight have been used in published studies (Adida et al., 2008; Cassidy, 2010; Schuepbach et al., 2006; Silva et al., 2015). However, the ISAD, created by Olaya et al. (2012), distinguishes itself by being the first hetero evaluation scale instrument into insight developed for patients with mood disorders. In addition, it allows for a more complete assessment of insight, addressing bipolar disorders in a comprehensive manner whilst at the same time investigating insight into several specific symptoms.

The process of adaptation allowed for the study to be more closely aligned to our culture than merely using a literal translation. The use of three translators and two subsequent translations (and two other translators) allowed for different versions to be compared and merged which gave us a better choice of selected terms. The approval of the ISAD-BR from the group that created the original scale ensured that the final version was faithful to the original version.

The ISAD-BR showed good internal consistency and good inter-rater reliability. These psychometric results are similar to those obtained with the original scale (Olaya et al., 2012). Specifically, internal consistency was slightly higher for the full scale and for the specific subscales in relation to the original scale. The extracted factors also yielded good internal consistency. The level of agreement between raters was very high, indicating good inter-rater reliability. The final version of the ISAD-BR can be found in the appendix.

The factor analysis indicated a four-factor solution. Factor I accounted for 39.8% of the variance and included the following items: "awareness of the presence of slowed

speech or verbosity", "awareness of the presence of sluggishness or psychomotor agitation", "awareness of the presence of bradypsychia/idea flight", "awareness of the presence of fatigue or excess energy", "awareness of the presence of insomnia or hypersomnia", "awareness of short attention span/showing distractibility" and "awareness of a depressed/expansive or irritable mood". The largest part of the variance of the scale was explained by this factor. In addition, the items that are a part of this factor show good internal consistency. It is interesting to note that, except for "awareness of short attention span/showing distractibility" and "awareness of a depressed/expansive or irritable mood", all other items are related to insight of symptoms associated with activity/energy. In addition, the hierarchical structure indicated by the second-order factor analysis suggests that the "awareness of short attention span/showing distractibility" item has a less salient loading on Factor I than the others items. Previous studies (Cheniaux et al., 2014) have shown that alterations of activity/energy levels represent the main characteristics of mania. These findings indicate that insight of the symptoms covering activity/energy levels also exert greater importance in relation to the awareness of other symptoms, in the various phases of bipolar disorder.

Factor II has good internal consistency and is formed by evaluation items on global insight that cover: "awareness of suffering from an affective disorder (mood)", "awareness of treatment efficacy for current symptoms or preventing relapses" and "awareness of the consequences of the illness on work, family and social life". It also covers an evaluation of awareness of having delusions and hallucinations. This factor refers to insight into wider clinical characteristics of BD. The ISAD is based on the SUMD scale (Amador et al., 1993), which incorporated the three general items for the evaluation of insight, although the SUMD has been developed and validated for use in

patients with schizophrenia. Having specifically considered these three items, Olaya et al. (2012), in the process of validating the original scale with patients with mood disorders, found lower scores than those of Amador et al. (1993), who had studied individuals with schizophrenia. Several studies have compared the insight in patients with schizophrenia and bipolar disorder patients, using these three items contained in SUMD, covering a general evaluation of insight. Most of them found a greater level of insight in bipolar patients than those with schizophrenia in at least one of the subtypes of insight assessed (i.e. general insight, or insight about the disease, the treatment, or about its social consequences (Braw et al., 2012; Calatayud et al., 2012; Daneluzzo et al. 2002; Fennig et al., 1996; Govil et al., 2008; Masson et al. 2001; Michalakeas et al., 1994; Pini et al., 2004; Pini et al., 2001; Varga et al., 2007; Yen et al., 2002; Young et al. 1998). It is possible that the greater presence of psychotic symptoms, in addition to increased cognitive impairment and the onset of schizophrenia (Cheniaux et al., 2008) may be responsible for greater impairment of insight in this mental disorder. In this sense, the present study shows that the item "awareness of having delusions and hallucinations" was the item that had higher scores in our sample of patients with bipolar disorder.

Factor III is made up of the following items: "awareness of a marked increase/reduction in pleasurable activities" and "awareness of present feelings of uselessness or guilt, or exaggerated self-esteem or grandiosity", which are associated with the feeling of pleasure and perceived feelings of guilt/self-esteem. Factor IV is made up of the following items: "awareness of untidy appearance" and "an awareness of having poor social relationships"; both are associated with insight of social interactions. The third and fourth factors had relatively lower internal consistency and were composed of only two items. It has been suggested that the minimum number of three

items per factor is critical (Velicer & Fava, 1998), which might indicate that these two factors are not very stable. Nevertheless, the solution with four factors proved the best in the current dataset, with communalities dropping considerably in alternative models with fewer factors.

A second-order factor analysis indicated that the four factors loaded onto a higher-order factor, suggesting a hierarchical structure for the ISAD. Most items yielded high loadings in the higher-order factor, which accounted for almost two-thirds of the variance. The higher-order factor exhibited strong correlations with lower-order factors I, II and III but a weak correlation with factor IV. Factor IV also correlated weakly with the other lower-order factors, which may suggest some independence of insight for social interaction in relation to general insight about bipolar disorder. The moderate to strong correlations between factors I, II and III, and also with the higher-order factor, suggest that while insight in BD may be a multidimensional construct, it is related mainly to insight about activity/energy symptoms, guilt/self-esteem and insight about having a disorder.

An analysis of the results showed that an increase in the severity of mania (YMRS) and of the general severity of the affective disorder (CGI-BP) was associated with poor levels of insight. These findings are in agreement with previously published data, showing that patients with bipolar disorder involving mania showed greater impairment of insight than patients in depression or euthymia. Also patients with more severe symptoms presented lower levels of insight than milder cases (Silva et al., 2014b; Látalova, 2012). Similar to the original validation study of the scale, the present study used a heterogeneous sample of patients in their various affective states (mania, depression and euthymia), and also at various levels of severity (measured by CGI-BP).

A comparison was made between the ISAD-BR and the insight items of the YMRS and HAM-D scales. The total ISAD-BR score and subscale scores correlated positively with item 11 of the YMRS, but not with the item 17 the HAM-D. This correlation between the ISAD and the item of insight from the YMRS was also observed in the validation study of the original scale (Olaya et al., 2012), suggesting the convergent validity of ISAD-BR. Unlike the present study, the validation study of the original scale found a positive correlation between the ISAD and item 17 of the HAM-D. One potential reason for this discrepancy is that a larger proportion of the sample studied by Olaya and colleagues had type II bipolar disorder, which may have led to more frequent depressive symptoms than in the current study.

One limitation of the current study refers to the size of the sample investigated, with large samples typically being recommended for studies using factor analysis. Nevertheless, the number of cases per item is within recommended ranges (Bryant & Yarnold, 1995; Winter, Dodou & Wieringa, 2009). In addition, it has been noted that the issue of sample size in studies using factor analysis, as in other fields of statistics, is influenced by a number of factors (Stevens, 2002). In particular, in the case of our sample communalities were high and the KMO was meritorious (Hutcheson & Sofroniou, 1999), suggesting that our sample was of adequate size to run the analysis, which was confirmed by the well-defined structure of the factor matrix.

## **Conclusions**

The ISAD-BR has good internal consistency and good inter-rater reliability, which supports its validity. This version will allow for other studies to be conducted looking in greater detail at the insight of individuals in our culture who have bipolar disorder. The factor analysis showed that the items of awareness about symptoms

covering activity/energy explained most of the variance of the scale, with better explanatory power in relation to the total score. This may suggest that activity and energy levels are central symptoms to understand insight and cognitive disturbance in bipolar disorder.

### **Conflict of interest**

No conflict of interest.

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## Tables

Table 1 – Socio-demographic and clinical characteristics of participants

Variable	Euthymia (n =33) Mean (SD)/ Range	Mania (n = 32) Mean (SD)/ Range	Depression (n = 30) Mean (SD)/ Range
Age	46.9 (11.4) / 23–70	46.0 (11.0) / 26–66	49.2 (12.5) / 28–78
Gender*	23 / 10	18 / 14	20 / 10
YMRS	1.4 (2.1) / 0–7	24.3 (9.1) / 9–41	3.1 (2.8) / 0–10
HAM-D	2.8 (2.6)/ 0–10	3.5 (2.6) / 0–10	16.1 (6.3) / 2–28
CGI-BP global	1.2 (0.4)/ 1–2	4.8 (1.2)/ 3–7	4.5 (1.0)/ 3–6

YMRS – Young Mania Rating Scale; HAM-D – Hamilton Depression Rating Scale; CGI-BP – Clinical Global Impression scale/bipolar version.



Table 2 – Mean score for each ISAD item and rater, with ICC values

Items	Rater 1	Rater 2	ICC
	Mean (SD)	Mean (SD)	
ISAD 1	2.3 (1.5)	2.3 (1.5)	.99
ISAD 2	1.7 (1.2)	1.8 (1.3)	.93
ISAD 3	2.1 (1.6)	2.1 (1.6)	.93
ISAD 4	2.5 (1.7)	2.5 (1.7)	.97
ISAD 5	1.8 (1.3)	1.7 (1.3)	.95
ISAD 6	1.4 (1.0)	1.3 (0.9)	.90
ISAD 7	1.9 (1.4)	1.9 (1.4)	.95
ISAD 8	3.0 (1.9)	2.9 (1.9)	.98
ISAD 9	2.4 (1.7)	2.3 (1.7)	.98
ISAD 10	2.7 (1.7)	2.8 (1.8)	.98
ISAD 11	2.9 (1.7)	2.9 (1.7)	.99
ISAD 12	3.0 (1.7)	3.0 (1.8)	.98
ISAD 13	2.7 (1.8)	2.8 (1.8)	.99
ISAD 14	2.5 (1.6)	2.8 (1.7)	.98
ISAD 15	2.8 (2.0)	3.0 (2.2)	.80
ISAD 16	1.8 (1.4)	1.7 (1.3)	.97
ISAD 17	4.5 (1.3)	4.3 (1.4)	.99

Table 3 – Factor loadings for the ISAD items

Factor loadings obtained with principal axis factoring and promax rotation; loadings greater than 0.4 are presented in bold

Item #	Item	ISAD Factors				Communalities
		I	II	III	IV	
11	Awareness of suffering from slowed speech or verbosity/garrulousness	<b>.88</b>	-.04	-.05	.03	.71
8	Awareness of suffering from sluggishness or psychomotor agitation	<b>.82</b>	-.04	.21	-.20	.79
12	Awareness of suffering from bradypsychia/ idea flight	<b>.81</b>	.13	-.05	-.20	.69
9	Awareness of suffering from fatigue or an excess of energy.	<b>.77</b>	.01	.05	.09	.70
4	Awareness of suffering from a depressed/expansive or irritable mood	<b>.67</b>	-.02	.05	.19	.59
7	Awareness of suffering from insomnia or hypersomnia	<b>.58</b>	.04	-.21	.18	.35
13	Awareness of having a short attention span/showing distractibility	<b>.51</b>	.13	.02	.14	.45
2	Awareness of treatment efficacy for current symptoms or preventing relapses.	-.11	<b>.79</b>	.16	-.04	.64
1	Awareness of suffering from an affective disorder.	.08	<b>.72</b>	.06	-.02	.64
3	Awareness of consequences of the illness on work, family and social life.	.15	<b>.65</b>	-.28	.12	.47
17	Awareness of suffering from delusions and hallucinations	.06	<b>.43</b>	.30	.01	.46
10	Awareness of suffering from feelings of uselessness/guilt or grandiosity.	.16	.01	<b>.76</b>	-.10	.72
5	Awareness of suffering a marked increase/reduction in pleasurable activities	-.18	-.01	<b>.73</b>	.29	.55
16	Awareness of having poor social relationships.	-.03	.08	.06	<b>.80</b>	.68
14	Awareness of having an untidy appearance.	.34	-.13	.18	<b>.46</b>	.47
	Eigenvalue	6.8	1.5	1.3	1.3	
	Variance (%)	39.8	9.1	7.8	7.6	
	Cronbach's Alpha	.90	.78	.67	.63	

Table 4 – Hierarchical ISAD structure with factor loadings for higher- and lower-order factors

Item #	Higher-order factor	Lower-order factors			
		I	II	III	IV
11	<b>.74</b>	<b>.36</b>	-.03	-.03	.03
8	<b>.79</b>	<b>.34</b>	-.03	.15	-.19
12	<b>.73</b>	<b>.34</b>	-.08	-.03	-.19
9	<b>.77</b>	<b>.32</b>	.01	.03	.08
4	<b>.69</b>	<b>.28</b>	-.02	.03	.18
7	<b>.47</b>	.24	.03	-.15	.17
13	<b>.63</b>	.21	.08	.01	.13
2	<b>.60</b>	-.05	<b>.51</b>	.11	-.04
1	<b>.66</b>	.03	<b>.47</b>	.04	-.02
3	<b>.47</b>	.06	<b>.42</b>	-.19	.11
17	<b>.60</b>	.02	<b>.28</b>	.21	.01
10	<b>.66</b>	.07	.01	<b>.53</b>	-.09
5	<b>.46</b>	-.07	-.01	<b>.51</b>	<b>.27</b>
16	<b>.36</b>	-.01	.05	.04	<b>.75</b>
14	<b>.51</b>	.14	-.08	.12	<b>.43</b>
Variance (%)	65.0	7.6	8.5	7.8	11.1

Factor loadings greater than 0.25 are presented in bold

Table 5 – Correlations between higher- and lower-order ISAD factors

Variable	Higher-order factor	Lower-order factors			
		I	II	III	IV
Higher-order factor	1.00				
Factor I	.97	1.00			
Factor II	.81	.68	1.00		
Factor III	.77	.64	.56	1.00	
Factor IV	.39	.36	.25	.24	1.00

Table 6 – Correlations between ISAD subscales and clinical variables

Variable	YMRS	HAM-D	CGI-BP	#11 YMRS	#17 HAM-D
Total score	<b>.88</b>	.07	<b>.72</b>	<b>.74</b>	.05
Factor I	<b>.83</b>	-.12	<b>.70</b>	<b>.66</b>	-.05
Factor II	<b>.74</b>	-.20	<b>.49</b>	<b>.67</b>	-.01
Factor III	<b>.54</b>	.06	<b>.60</b>	<b>.40</b>	.19
Factor IV	<b>.48</b>	-.07	<b>.38</b>	<b>.38</b>	.13

Significant results are presented in bold.

**Appendix***Escala de consciência de morbidade para transtornos afetivos (do humor)*

Indique o escore apropriado com um X: 0= não pode ser avaliado ou item não relevante; 1= consciência; 3= consciência moderada; 5= sem consciência.

	0	1	2	3	4	5
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						

**INSIGHT IN BIPOLAR DISORDER: A COMPARISON BETWEEN MANIA, DEPRESSION AND EUTHYMIA USING THE INSIGHT SCALE FOR AFFECTIVE DISORDERS**

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*Trends in Psychiatry and Psychotherapy* (Submit.)

**Abstract**

**Objective:** Evaluate whether having general insight into bipolar disorder and its symptoms is affected by the clinical state of a patient.

**Methods:** Ninety-five patients were evaluated in different affective states (i.e., euthymia, mania and depression). Identifying information, sociodemographic data, and clinical records were recorded. The following scales were applied: Hamilton Depression Scale, Young Mania Rating Scale and Clinical Global Impressions Scale for use in bipolar disorder. Insight was evaluated using Insight Scale for Affective Disorders (ISAD).

**Results:** Individuals with mania have less insight about their condition and about their symptoms than individuals with depression or euthymia. Patients with euthymia may exhibit impairments of insight. For patients with mania, insight about the reduction in the need for sleep was less impaired relative to other symptoms.

**Conclusions:** Bipolar patients in mania have a poorer insight than patients in depression or euthymia. However, some bipolar patients in mania not seem to have a total commitment of insight into their condition or its symptoms.

**Keywords:** insight, awareness, bipolar disorder, mania.

## Introduction

Studies about insight have shown that this is a multi-dimensional and complex phenomenon.<sup>1</sup> Therefore, multidimensional rather than dichotomous (having or not having insight) assessments of insight have been preferred to study its various characteristics. These dimensions include, for example, insight about the illness, about the need for treatment and about the consequences associated with the illness.

Initially many studies about insight were conducted with patients suffering from schizophrenia.<sup>2</sup> However, in the last few years, there has been an increase in interest about insight in patients with bipolar disorder.<sup>3</sup> Major impairments have been noted concerning patient insight in bipolar disorder and schizophrenia.<sup>4</sup> A large proportion of patients studied have shown a lack of awareness about being ill or about having an understanding of the specific signs and symptoms.<sup>4</sup> The degree of awareness about having a disorder or about its symptoms or even about the psychosocial negative consequences of such illnesses can significantly influence the course of these disorders. For instance, insight can have an effect on the patient's adherence to prescribed treatments.<sup>5</sup>

Many studies have been published on insight into behavioral disorders, with a wide spectrum of assessment methods being used to evaluate insight. Some studies<sup>6,7</sup> used specific item of some scales such as the Scale for Manic States,<sup>8</sup> the Young Mania Rating Scale<sup>9</sup> or the Hamilton Depression Scale.<sup>10</sup> Other studies<sup>2,8,11,12</sup> used instruments designed to evaluate insight in psychosis such as the Insight and Treatment Attitude Questionnaire,<sup>13</sup> the Scale to Assess Unawareness of Mental Disorder<sup>1</sup> and the Schedule for Assessment of Insight.<sup>14</sup> However these instruments were only validated for patients with non-affective psychotic disorders and for this reason do not measure effectively the symptomatology or clinical course of mood disorders.



Some scales for assessing insight specifically into mood disorders were created, such as the Mood Disorder Insight Scale<sup>15</sup> and the Beck Cognitive Insight Scale.<sup>16</sup> Both are self-evaluation scales that can be used with patients with mood disorders. However, evaluation on insight through the use of self-evaluation instruments can result in discrepancies when compared with objective evaluations.<sup>17,18</sup> In light of these different measurement tools, Olaya et al.<sup>19</sup> developed the Insight Scale for Affective Disorders (ISAD), which relies on hetero-application for patients with mood disorders.

The objective of our study was to evaluate whether having general insight into bipolar disorder and its symptoms is affected by the clinical state of a patient. For this purpose we compared three groups of patients with bipolar disorder in different phases: mania, depression and euthymia. We also used an evaluation scale on insight specifically geared towards mood disorders. To the best of our knowledge, there has not been any other study that had evaluated insight for bipolar patients (in different phases of the illness) using a hetero-evaluation scale specifically designed for patients with mood disorders.

## **Material and methods**

### *Participants*

The study was carried out between November 2013 and November 2014 at a research clinic and outpatient ward at the Psychiatric Institute of the Federal University in Rio de Janeiro. In order to take part in the study the patients needed to have: had a diagnosis of type 1 or 2 bipolar disorder, been aged 18 or over and to have signed a free informed consent form. The study was approved by the local ethics committee.

### *Measures*

Socio-demographic characteristics and details regarding the identification of the patients were recorded. Psychiatric diagnosis of the patients was conducted in accordance with the DSM-5 criteria.<sup>20</sup>

Patients were selected amongst those that visited the clinic or were admitted to the institute. At each medical appointment every patient's clinical state was classified into one of three groups: mania, depression or euthymia. To aid in this classification process the DSM-5 criteria for manic and major depressive episodes were used. For the purposes of this study patients with mixed episodes were excluded.

The following measurement scales were used: the Hamilton Depression Scale (HAM-D),<sup>10</sup> Young Mania Rating Scale (YMRS),<sup>9</sup> and Clinical Global Impressions Scale for use in bipolar illness (CGI-BP).<sup>21</sup>

The patients were evaluated with the hetero evaluation questionnaire "Insight Scale for Affective Disorders" (ISAD), which was developed by Olaya et al (2012)<sup>19</sup> and was translated into Portuguese and adapted for use in Brazil by Silva et al (In press).<sup>22</sup> This instrument, which was designed based on the Scale to Assess Unawareness of Mental Disorders,<sup>2</sup> is a multidimensional assessment made up of 17 items. Each question is scored from 0 to 5. "0" represents the absence of any symptoms or a situation where this cannot be evaluated. "1" constitutes full awareness of psychiatric morbidity. "3" represents a moderate awareness of psychiatric morbidity and "5" constitutes the absences of awareness of psychiatric morbidity.

#### *Data analysis*

Descriptive statistics were used to illustrate the demographic and clinical characteristics of the sample. For age, YMRS, HAM-D and CGI scores, the patient groups were compared with one-way ANOVAs, followed by post-hoc t-tests adjusted

with Bonferroni corrections. To explore differences in gender distribution, a chi-square test was used.

For items #1 to #3 of the ISAD, measuring insight of overall condition and having a disorder, patients in the three states (euthymia, depression and mania) were compared with a one-way ANOVA, followed by post-hoc Bonferroni-corrected t-tests. For items #4 to #17, measuring insight of specific symptoms, patients in euthymia were excluded from the analysis. In this case, t-tests were calculated to compare patients in depression and in mania; for each variable, only patients who presented the symptom were included.

## **Results**

### *Sample characteristics*

The final sample counted with 95 patients with type 1 bipolar disorder. None of the patients were diagnosed as having type 2 bipolar disorder. Of the 95 patients, 32 were suffering from mania, 30 from depression and 33 from euthymia. The sample was made up of 61 women and 34 men. The average age was 47.3 ( $\pm 11.6$ ) years old. Socio-demographic and clinical characteristics of the sample are described in Table 1. There were no differences between groups in terms of age ( $F(2, 92) = 0.63, p = .534$ ) or gender distribution ( $\chi^2(2) = 1.39, p = .498$ ). As expected, there were significant differences in YMRS ( $F(2, 92) = 165.00, p < .001$ ) and HAM-D scores ( $F(2, 92) = 100.33, p < .001$ ). Patients in mania had higher YMRS scores than patients in the other states ( $p < .001$ ). Similarly, patients in depression had higher HAM-D scores in comparison to the other patients ( $p < .001$ ). Finally, there were differences in symptom severity ( $F(2, 92) = 140.24, p < .001$ ), with patients in euthymia having lower scores

than patients in mania or depression ( $p < .001$ ), but without differences between the latter two groups ( $p = .462$ ).

#### *Insight about condition*

Mean scores for ISAD items #1, #2 and #3 can be seen in Table 2. There were significant differences between the patient groups for all 3 items (item #1: ( $F(2, 92) = 17.55, p < .001$ ); item #2: ( $F(2, 92) = 10.07, p < .001$ ); item #3: ( $F(2, 92) = 13.53, p < .001$ ). In all cases, post-hoc pairwise comparisons indicated poorer insight in patients in mania when compared with patients in depression or euthymia ( $p < .006$ ), with no significant differences between depression and euthymia ( $p > .05$ ).

#### *Insight about symptoms*

Mean scores for ISAD items #4 to #16 can be seen in Table 3. With the exception of item #6 (Awareness of suffering a significant increase/loss of weight), patients in mania showed worse insight about symptoms compared to patients in depression (all  $p < .05$ ). Because few patients exhibited disorientation (#15) and delusions/hallucinations (#17), five and seventeen patients, respectively, these items were not included in the analysis.

## **Discussion**

The findings of this study suggest that during mania patients with bipolar disorder had greater impairment of insight than during depression or euthymia. We also noted, in two previous studies<sup>17,18</sup>, that patients with mania were less reliable in their self-evaluations than those with depression or euthymia. In both studies the Visual Analog Mood Scale<sup>23</sup> was applied. Also, in both studies there were 165 patients in

different affective states (mania, depression or euthymia) who were only evaluated once. In one of the studies<sup>18</sup> all of the 65 patients were evaluated at least twice and each time they were evaluated they were in a different affective state. Both studies presented similar findings. We observed that there were no differences in their self-assessments between the mania and euthymia phases. On the other hand, during depression the self-assessment was significantly different in comparison to both euthymia and mania. This suggests less reliability in the self-evaluation of patients during manic episodes due to a lack of insight in this bipolar phase. In another study<sup>7</sup> in which bipolar insight was measured through items #11 of the YMRS and #17 of the HAM-D, it was also possible to observe that patients with mania had less insight than those with depression. The current study has as an advantage over previous studies, in that it investigated insight using a specific scale tailored to mood disorders (i.e. ISAD). Also the utilization of this scale allowed us to conduct a detailed evaluation of insight on specific symptoms of mood disorder.

The first three items of the scale were evaluated in all participants (awareness of having bipolar disorder, awareness of the effectiveness of treatment for the actual symptoms or to prevent a reoccurrence of the illness and awareness of the consequences of the disorder on their work, family and social life). In the comparison between groups, individuals with mania showed less insight than those in the depression phase or in euthymia. These findings are in agreement with other studies which showed that individuals suffering from mania exhibit less insight about the effectiveness of treatment and the social consequences of the disorder in comparison to those with depression or euthymia.<sup>11,24,25</sup> Also in relation to the three first items, the present study did not find any differences between depression and euthymia. In past studies we also observed preservation of insight in the depressive phase of bipolar disorder.<sup>7,17,18</sup>

The association between having a depressive disorder and having insight into it has been observed in many different studies<sup>5</sup> but the direction of causality is not always clear. On one hand, improved insight brings with it recognition of difficulties, which can lead to depression. But, on the other hand, patients with depression may be more realistic, with a greater understanding of the consequences of their problem. Some studies<sup>26,27</sup> have shown that greater insight is associated with suicidal thoughts and attempts to commit suicide. Such studies suggest that the presence of insight into a disorder can in itself be a risk factor for suicide which may be related to a greater occurrence of symptoms of depression amongst suicidal patients. Another possibility is that having a greater awareness of insight means that the person will know more about the severity and consequences of their disorder, with death being seen as a less painful alternative to living with bipolar disorder.

The development of the ISAD was based on the SUMD scale.<sup>1</sup> The latter was developed to be applied in studies with patients with schizophrenia and contained the first three ISAD items. Various studies compared patients with schizophrenia with bipolar patients utilizing different insight evaluation methods such as the SUMD.<sup>3</sup> A large proportion of these studies found higher levels of insight in those with bipolar disorder than those with schizophrenia in one of the evaluation items (i.e. global insight, or awareness of the illness, treatment or possible social consequences).<sup>4,28</sup> It is possible that a greater presence of psychotic symptoms, greater cognitive impairment and a more deteriorating course of the illness for schizophrenia<sup>29</sup> may be responsible for greater insight impairment. Although there were not many patients with psychotic symptoms in our sample, the awareness of psychotic symptoms was the most impaired of all the evaluated items. Data from other studies have shown that in affective episodes with

psychotic symptoms there is greater loss of insight than in those with no psychotic symptoms.<sup>30</sup>

Our study showed that some patients with euthymia may exhibit impairments of insight. This suggests that there are other factors besides the affective state that can influence psychiatric morbidity awareness in patients with bipolar disorder. In this case, cognitive deficits can be related to high levels of insight impairment.<sup>31</sup> Low levels of insight were associated with poor performance in tests of executive function,<sup>12,32</sup> divided attention, cognitive flexibility, working memory, response inhibition and interference resolution, all of which are mediated by the frontal lobes. Also deficits in verbal fluency were significantly associated with high levels of insight impairment.<sup>32</sup> These results reinforce the notion that insight is a neurocognitive capacity, associated with pre-frontal and frontoparietal dysfunction in BD patients with low levels of insight.<sup>32</sup>

Our study showed that, in relation to almost all of the symptoms, patients with mania had lower insight levels than those in depression, with the exception of insight about weight loss. These findings reinforce the idea that patients with mania have greater difficulty in being aware of their symptoms than patients in depression. For patients with mania, insight about the reduction in the need for sleep and about having a poor social life was less impaired relative to other symptoms. These findings are important in the search for measures to improve the adherence rate in relation to treatment. Sleep reduction is one of the first symptoms that indicate the onset of an episode of mania, so if insight is slightly less compromised regarding this symptom, it could be a target for psycho-education and early medical intervention. Nevertheless, it is worth noting that symptoms with better insight in the mania group had a considerable number of missing cases, so it is possible that this represents a sampling bias.

A limitation of this study concerns the use of a between-subjects design, with comparisons between affective states being made with different individuals. A within-subjects design would have been more appropriate, allowing for each patient to be his/her own control. Nevertheless, this was not done due to recruitment limitations, with sampling of patients who have been across all three different mood states taking a considerably longer time.

### **Conclusions**

Individuals with mania have less insight about their condition and about their symptoms than individuals with depression or euthymia. Patients with euthymia may exhibit impairments of insight. For patients with mania, insight about the reduction in the need for sleep was less impaired relative to other symptoms.

### **Conflicts of interest**

No conflicts of interest.

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## Tables

Table 1 – Socio-demographic and clinical characteristics of participants

Variable	Euthymia (n =33) Mean (SD)/ Range	Mania (n = 32) Mean (SD)/ Range	Depression (n = 30) Mean (SD)/ Range	Group differences
Age	46.9 (11.4) / 23–70	46.0 (11.0) / 26–66	49.2 (12.5) / 28–78	–
Gender*	23 / 10	18 / 14	20 / 10	–
YMRS	1.4 (2.1) / 0–7	24.3 (9.1) / 9–41	3.1 (2.8) / 0–10	M>D=E
HAM-D	2.8 (2.6) / 0–10	3.5 (2.6) / 0–10	16.1 (6.3) / 2–28	D>M=E
CGI global	1.2 (0.4) / 1–2	4.8 (1.2) / 3–7	4.5 (1.0) / 3–6	M=D>E

\* # female/male, group differences tested with a  $\chi^2$  test; differences in all other variables explored with ANOVAs followed by pairwise t-tests; YMRS – Young Mania Rating Scale; HAM-D – Hamilton Depression Rating Scale; CGI – Clinical Global Impression scale.

Table 2 – Insight about condition in BD patients in euthymia, mania and depression

Variable	Euthymia (n =33) Mean (SD)	Mania (n = 32) Mean (SD)	Depression (n = 30) Mean (SD)	Group difference s
#1 Awareness of suffering from an affective disorder	1.7 (1.1)	3.4 (1.5)	1.7 (1.3)	M>D=E
#2 Awareness of treatment efficacy for current symptoms or preventing relapses	1.3 (0.8)	2.4 (1.4)	1.5 (1.0)	M>D=E
#3 Awareness of consequences of the illness on work, family and social life	1.6 (1.2)	3.2 (1.8)	1.5 (1.2)	M>D=E

Table 3 – Insight about symptoms in BD patients in mania and depression

Items	Mania (n = 32)	Depression (n = 30)	p-value
	Mean (SD)	Mean (SD)	
#4 Awareness of suffering from a depressed/expansive or irritable mood (mv = 1)	3.6 (1.5)	1.4 (1.1)	<.001
#5 Awareness of suffering a marked increase / reduction in pleasurable activities (mv = 13)	2.3 (1.4)	1.4 (1.1)	.009
#6 Awareness of suffering a significant increase / loss of weight (mv = 36)	1.7 (1.3)	1.1 (0.3)	.056
#7 Awareness of suffering from insomnia or hypersomnia (mv = 21)	2.5 (1.6)	1.5 (1.1)	.010
#8 Awareness of suffering from sluggishness or psychomotor agitation (mv = 14)	4.0 (1.4)	1.5 (1.3)	<.001
#9 Awareness of suffering from fatigue or an excess of energy (mv = 8)	3.5 (1.7)	1.2 (0.5)	<.001
#10 Awareness of suffering from feelings of uselessness / guilt or grandiosity (mv = 25)	3.5 (1.5)	1.9 (1.4)	<.001
#11 Awareness of suffering from slowed speech or verbosity / garrulousness (mv = 20)	3.6 (1.5)	1.5 (1.0)	<.001
#12 Awareness of suffering from bradypsychia / idea flight (mv = 28)	3.8 (1.5)	1.9 (1.2)	<.001
#13 Awareness of having a short attention span / showing distractibility (mv = 21)	3.7 (1.6)	1.7 (1.3)	<.001
#14 Awareness of having an untidy appearance (mv = 32)	3.1 (1.6)	1.7 (1.3)	.011
#16 Awareness of having poor social relationships (mv = 17)	2.5 (1.5)	1.4 (1.1)	.003

mv – missing values



## 5. CONCLUSÕES

Os resultados de nossos estudos sobre autoavaliação de pacientes bipolares, utilizando a EVAH, indicaram que bipolares em mania, mas não os deprimidos, avaliam de forma não fidedigna seu humor, o que reflete o importante comprometimento do *insight* observado na síndrome maníaca. Estes resultados puderam ser observados tanto no estudo em que cada paciente foi avaliado uma única vez, quanto no estudo em que cada indivíduo foi avaliado ao menos duas vezes em estados afetivos diferentes. Esta constatação torna questionável a aplicação de instrumentos de autopreenchimento em pacientes que estão em mania.

Os dados presentes na literatura, obtidos na revisão sistemática, mostraram que a fase maníaca cursa com um nível inferior de *insight* quando comparada à fase depressiva ou de eutimia. Também parece estar claro que a presença de sintomas psicóticos ou de alterações cognitivas está associada a um menor nível de *insight*. Entre as consequências do prejuízo do *insight*, uma menor adesão ao tratamento parece ser a mais estudada e a que apresentou maior associação. Por outro lado, uma maior preservação do *insight* pode estar associada a maior ideação suicida. Finalmente, o *insight* no transtorno bipolar parece ser mais prejudicado do que na depressão unipolar, porém menos do que na esquizofrenia, quando comparado a outros transtornos mentais.

Nosso estudo, que avaliou o *insight* por meio de itens específicos de avaliação de *insight* das escalas de HAM-D e YMRS, observou-se que o *insight* no transtorno bipolar estava mais comprometido durante as fases de mania e nos episódios mistos do que na depressão e nos períodos de eutimia. Entre as características que parecem estar associadas a um menor nível de *insight* no transtorno bipolar, um menor tempo de doença, idade mais elevada e uma maior gravidade do episódio, foram observadas na mania. Na depressão, sexo feminino e idade mais elevada foram associados a pior

*insight*. E, no episódio misto, menor duração da doença e sintomas depressivos mais graves foram associados a um pior *insight*.

A versão em português do Brasil da ISAD apresentou boa consistência interna e boa confiabilidade entre avaliadores, o que indicou a sua validade. A mesma permitirá pesquisas com uma avaliação mais detalhada do *insight* em indivíduos com TB em nossa cultura. A análise fatorial mostrou que os itens de consciência sobre sintomas de atividade/energia foram os mais importantes e que tiveram maior poder explicativo em relação à escala de uma forma global.

O estudo utilizando a escala de *insight* para transtorno afetivos permitiu observar que, de fato, indivíduos em fase maníaca apresentam pior *insight* do que pacientes em depressão ou eutimia. Também mostrou que mesmo pacientes em eutimia podem apresentar comprometimento do *insight*. Por fim, o *insight* sobre redução da necessidade de sono parece ser um dos menos prejudicados em indivíduos em mania, em relação ao *insight* sobre outros sintomas. Como a redução de sono é um dos primeiros sintomas que indicam o início de uma crise maníaca e como o *insight* sobre a presença deste sintoma parece ser um dos menos prejudicados, talvez um trabalho de psicoeducação para uma possível intervenção precoce do médico possa surtir melhores resultados quanto ao tratamento.

A conclusão do presente trabalho indicou que a fase maníaca cursa com um nível inferior de *insight* quando comparada à fase depressiva ou de eutimia. Além disso, outros fatores, além do estado afetivo, podem influenciar o nível de *insight*, como a presença de sintomas psicóticos e um comprometimento cognitivo. Por outro lado, o *insight* pode influenciar o tratamento e o prognóstico do paciente bipolar.

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## 7. ANEXOS

### 7.1. Anexo I

#### *Insight Scale of Affective Disorders*

Indicate the appropriate score with na X: 0= cannot be evaluated or item not relevant; 1= awareness; 3= moderate awareness ; 5= no awareness.

	0	1	2	3	4	5
1 Awareness of suffering from a affective disorder.						
2 Awareness of treatment efficacy for current symptoms or preventing relapses.						
3 Awareness of consequences of the illness on work, Family and social life.						
4 Awareness of suffering from a depressed/expansive or irritable mood (as appropriate).						
5 Awareness of suffering a marked increase/reduction in pleasurable mood(as appropriate).						
6 Awareness of suffering a significant increase/loss of weight (as appropriate).						
7 Awareness of suffering from insomnia or hypersomnia (as appropriate).						
8 Awareness of suffering from sluggishness or psychomotor agitation (as appropriate).						
9 Awareness of suffering from fatigue or na exceso of energy.						
10 Awareness of suffering from feelings of uselessness or guilt, or exaggerated self-esteem or grandiosity.						
11 Awareness of suffering from slowed speech or verbosity/garrulousness (as appropriate).						
12 Awareness of suffering from bradypsychia/idea flight (as appropriate).						
13 Awareness of having a short attention span/showing distractibility.						
14 Awareness of having na untidy appearance.						
15 Awareness of having symptoms of confusion-disorientation.						
16 Awareness of having poor social relationships.						
17 Awareness of suffering from delusions and hallucinations (as appropriate).						

## 7.2. Anexo II

### Termo de Consentimento Livre e Esclarecido

O sr.(a) está sendo assistido num setor de pesquisa do ambulatório do Instituto de Psiquiatria da Universidade Federal do Rio de Janeiro. O laboratório de transtorno bipolar é coordenado pelo dr. Elie Cheniaux. As consultas médicas e psicológicas realizadas aqui, assim como as prescrições terapêuticas, são idênticas às que acontecem no ambulatório geral desta instituição. Todavia, durante as consultas aqui o sr.(a) é submetido a uma avaliação mais detalhada, através do uso de instrumentos de pesquisa (avaliação de dados demográficos, CGI-BP, *Positive And Negative Syndrome Scale* (PANSS-p), a *Global Assessment of Functioning* (GAF), insight scale for affective disorders (ISAD) e a Escala Visual Analógica de Humor). Estes têm como o objetivo a ampliação do conhecimento médico e científico sobre o transtorno bipolar.

Esclarecemos que os dados de todos os pacientes são analisados em conjunto, sendo mantido um total sigilo em relação às informações específicas do seu caso. Ao longo de todo o acompanhamento, sr.(a) não será submetido a nenhuma forma não usual de tratamento para o transtorno bipolar. A qualquer momento, o sr.(a) poderá desistir de sua participação na pesquisa, sendo então encaminhado para o ambulatório geral desta instituição.

Eu, \_\_\_\_\_, identidade nº \_\_\_\_\_, declaro que li e compreendi o que me foi explicado e, dessa forma, concordo em participar do estudo.

Rio de Janeiro, \_\_\_\_ de \_\_\_\_\_ de \_\_\_\_\_.

### 7.3. Anexo III

#### Escala Analógica de Humor

Estado psíquico atual

Instruções – Avalie como você se sente agora em relação aos itens abaixo. Considere cada linha como representando a gama completa de cada dimensão, isto é, as extremidades indicam os máximos de cada condição. Marque claramente cada linha com um traço vertical.

Alerta	_____	Sonolento
Calmo	_____	Agitado
Forte	_____	Fraco
Confuso	_____	Com idéias claras
Ágil	_____	Desajeitado
Apático	_____	Dinâmico
Satisfeito	_____	Insatisfeito
Preocupado	_____	Tranqüilo
Raciocínio difícil	_____	Perspícaz
Tenso	_____	Relaxado
Atento	_____	Distraído
Incompetente	_____	Competente
Alegre	_____	Triste
Hostil	_____	Amistoso
Interessado	_____	Desinteressado
Retraído	_____	Sociável

## **7.4. Anexo IV**

### **Escala de Hamilton – Depressão**

**Todos os ítems devem ser preenchidos. Assinalar o número apropriado.**

#### **1. HUMOR DEPRIMIDO (Tristeza, desesperança, desamparo, inutilidade)**

0. Ausente.

1. Sentimentos relatados apenas ao ser inquirido.

2. Sentimentos relatados espontaneamente com palavras.

3. Comunica os sentimentos não com palavras, isto é, com a expressão facial, a postura, a voz e a tendência ao choro.

4. Sentimentos deduzidos da comunicação verbal e não-verbal do paciente.

#### **2. SENTIMENTOS DE CULPA**

0. Ausente

1. Auto-recriminação; sente que decepcionou os outros.

2. Idéias de culpa ou ruminação sobre erros passados ou más ações.

3. A doença atual é um castigo.

4. Ouve vozes de acusação ou denúncia e/ou tem alucinações visuais ameaçadoras.

#### **3. SUICÍDIO**

0. Ausente.

1. Sente que a vida não vale a pena.

2. Desejaria estar morto ou pensa na probabilidade de sua própria morte.

3. Idéias ou gestos suicidas.

4. Tentativa de suicídio ( qualquer tentativa séria, marcar 4).

#### **4. INSÔNIA INICIAL**

0. Sem dificuldades para conciliar o sono.



1. Queixa-se de dificuldade ocasional para conciliar o sono, isto é, mais de meia hora.
2. Queixa-se de dificuldade para conciliar o sono todas as noites.

### **5. INSÔNIA INTERMEDIÁRIA**

0. Sem dificuldades.
1. O paciente se queixa de inquietude e perturbação durante a noite.
2. Acorda à noite - qualquer saída da cama marcar 2( exceto p/ urinar).

### **6. INSÔNIA TARDIA**

0. Sem dificuldades.
1. Acorda de madrugada, mas volta a dormir
2. Incapaz de voltar a conciliar o sono se deixar a cama.

### **7. TRABALHO E ATIVIDADES**

0. Sem dificuldades.
1. Pensamento e sentimentos de incapacidade, fadiga ou fraqueza relacionada a atividades, trabalho ou passatempos.
2. Perda de interesse por atividades (passatempos ou trabalho) quer diretamente relatada pelo paciente, quer indiretamente por desatenção, indecisão e vacilação (sente que precisa esforçar-se para o trabalho ou atividade).
3. Diminuição do tempo gasto em atividades ou queda de produtividade. No hospital, marcar 3 se o paciente não passar ao menos 3 horas por dia em atividades externas (trabalho hospitalar ou passatempo).
4. Parou de trabalhar devido à doença atual. No hospital, marcar 4 se o paciente não se ocupar com outras atividades, além de pequenas tarefas do leito, ou for incapaz de realizá-las sem ajuda.

### **8. RETARDO (lentidão de idéias e fala; dificuldade de concentração; atividade motora diminuída)**

0. Pensamento e fala normais.
1. Leve retardo à entrevista.
2. Retardo óbvio à entrevista.
3. Entrevista difícil.
4. Estupor completo.

## **9. AGITAÇÃO**

0. Nenhuma.
1. Inquietude.
2. Brinca com as mãos, com os cabelos, etc.
3. Mexe-se, não consegue sentar quieto.
4. Torce as mãos, rói as unhas, puxa os cabelos, morde os lábios.

## **10. ANSIEDADE PSÍQUICA**

0. Sem dificuldade.
1. Tensão e irritabilidade subjetivas.
2. Preocupação com trivialidades.
3. Atitude apreensiva aparente no rosto ou na fala.
4. Medos expressos sem serem inquiridos.

## **11. ANSIEDADE SOMÁTICA**

Concomitantes fisiológicos de ansiedade, tais como:

Gastrointestinais: boca seca, flatulência, indigestão, diarreia, cólicas, eructação;

Cardiovasculares: palpitações, cefaléia;

Respiratórios: hiperventilação, suspiros; Frequência urinária; Sudorese

0. Ausente :
1. Leve
2. Moderada

3. Grave

4. Incapacitante

## **12. SINTOMAS SOMÁTICOS GASTRINTESTINAIS**

0. Nenhum

1. Perda de apetite, mas alimenta-se voluntariamente. Sensações de peso no abdômen

2. Dificuldade de comer se não insistirem. Solicita ou exige laxativos ou medicações para os intestinos ou para sintomas digestivos.

## **13. SINTOMAS SOMÁTICOS EM GERAL**

0. Nenhum

1. Peso nos membros, nas costas ou na cabeça. Dores nas costas, cefaléia, mialgias. Perda de energia e cansaço.

2. Qualquer sintoma bem caracterizado e nítido, marcar 2.

## **14. SINTOMAS GENITAIS**

Sintomas como: perda da libido, distúrbios menstruais

0. Ausentes

1. Leves

2. Intensos

## **15. HIPOCONDRIA**

0. Ausente

1. Auto-observação aumentada (com relação ao corpo)

2. Preocupação com a saúde

3. Queixas freqüentes, pedidos de ajuda, etc.

4. Idéias delirantes hipocondríacas.

## **16. PERDA DE PESO (Marcar A ou B)**

A - Quando avaliada pela história clínica

0. Sem perda de peso.
1. Provável perda de peso associada à moléstia atual.
2. Perda de peso definida ( de acordo com o paciente)
3. Não avaliada.

B - Avaliada semanalmente pelo psiquiatra responsável, quando são medidas alterações reais de peso

0. Menos de 0,5 Kg de perda por semana.
1. Mais de 0,5 Kg de perda por semana.
2. Mais de 1 Kg de perda por semana.
3. Não avaliada.

## **17. CONSCIÊNCIA**

0. Reconhece que está deprimido e doente.
1. Reconhece a doença mas atribui-lhe a causa à má alimentação, ao clima, ao excesso de trabalho, a vírus, à necessidade de repouso, etc.
2. Nega estar doente.

## 7.5. Anexo V

### Escala de avaliação de mania de Young

#### Item - definição

##### *01. Humor e afeto elevados*

Este item compreende uma sensação difusa e prolongada, subjetivamente experimentada e relatada pelo indivíduo, caracterizada por sensação de bem-estar, alegria, otimismo, confiança e ânimo. Pode haver um afeto expansivo, ou seja, uma expressão dos sentimentos exagerada ou sem limites, associada à intensa relação com sentimentos de grandeza (euforia). O humor pode ou não ser congruente ao conteúdo do pensamento.

- (0) Ausência de elevação do humor ou afeto
- (1) Humor ou afeto discreta ou possivelmente aumentados, quando questionado.
- (2) Relato subjetivo de elevação clara do humor; mostra-se otimista, autoconfiante, alegre; afeto apropriado ao conteúdo do pensamento.
- (3) Afeto elevado ou inapropriado ao conteúdo do pensamento; jocoso.
- (4) Eufórico; risos inadequados, cantando.
- (X) Não avaliado

##### *02. Atividade motora - energia aumentada*

Este item compreende a psicomotricidade - e expressão corporal - apresentada pelo paciente, incluindo a sua capacidade em controlá-la, variando desde um grau de normalidade, até um estado de agitação, com atividade motora sem finalidade, não

influenciada por estímulos externos. O item compreende ainda o relato subjetivo do paciente, quanto à sensação de energia, ou seja, capacidade de produzir e agir.

- (0) Ausente
- (1) Relato subjetivo de aumento da energia ou atividade motora
- (2) Apresenta-se animado ou com gestos aumentados
- (3) Energia excessiva; às vezes hiperativo; inquieto (mas pode ser acalmado).
- (4) Excitação motora; hiperatividade contínua (não pode ser acalmado).
- (X) Não avaliado

### *03. Interesse sexual*

Este item compreende idéias e/ou impulsos persistentes relacionados a questões sexuais, incluindo a capacidade do paciente em controlá-los. O interesse sexual pode restringir-se a pensamentos e desejos não concretizados, em geral verbalizados apenas após solicitação, podendo chegar até a um comportamento sexual frenético e desenfreado, sem qualquer controle ou crítica quanto a riscos e normas morais.

- (0) Normal; sem aumento.
- (1) Discreta ou possivelmente aumentado
- (2) Descreve aumento subjetivo, quando questionado.
- (3) Conteúdo sexual espontâneo; discurso centrado em questões sexuais; auto-relato de hipersexualidade.
- (4) Relato confirmado ou observação direta de comportamento explicitamente sexualizado, pelo entrevistador ou outras pessoas.
- (X) Não avaliado

#### *04. Sono*

Este item inclui a redução ou falta da capacidade de dormir, e/ou a redução ou falta de necessidade de dormir, para sentir-se bem-disposto e ativo.

- (0) Não relata diminuição do sono
- (1) Dorme menos que a quantidade normal, cerca de 1 hora a menos do que o seu habitual.
- (2) Dorme menos que a quantidade normal, mais que 1 hora a menos do que o seu habitual.
- (3) Relata diminuição da necessidade de sono
- (4) Nega necessidade de sono
- (X) Não avaliado

#### *05. Irritabilidade*

Este item revela a predisposição afetiva para sentimentos/emoções como raiva ou mau-humor apresentados pelo paciente frente a estímulos externos. Inclui baixo-limiar à frustração, com reações de ira exagerada, podendo chegar a um estado constante de comportamento desafiador, querelante e hostil.

- (0) Ausente
- (2) Subjetivamente aumentada
- (4) Irritável em alguns momentos durante a entrevista; episódios recentes (nas últimas 24 horas) de ira ou irritação na enfermaria

(6) Irritável durante a maior parte da entrevista; ríspido e lacônico o tempo todo.

(8) Hostil; não cooperativo; entrevista impossível.

(X) Não avaliado

#### *06. Fala (velocidade e quantidade)*

Este item compreende a velocidade e quantidade do discurso verbal apresentado pelo paciente. Inclui sua capacidade de percebê-lo e controlá-lo, por exemplo, frente a solicitações para que permaneça em silêncio ou permita que o entrevistador fale.

(0) Sem aumento

(2) Percebe-se mais falante do que o seu habitual

(4) Aumento da velocidade ou quantidade da fala em alguns momentos; verborréico, às vezes (com solicitação, consegue-se interromper a fala).

(6) Quantidade e velocidade constantemente aumentadas; dificuldade para ser interrompido (não atende a solicitações; fala junto com o entrevistador).

(8) Fala pressionada, ininterruptível, contínua (ignora a solicitação do entrevistador).

(X) Não avaliado

#### *07. Linguagem - Distúrbio do pensamento*

Este item refere-se a alterações da forma do pensamento, avaliado pelas construções verbais emitidas pelo paciente. O pensamento pode estar mais ou menos desorganizado, de acordo com a gravidade das alterações formais do pensamento, descritas a seguir:

*Circunstancialidade*: fala indireta que demora para atingir o ponto desejado, mas eventualmente vai desde o ponto de origem até o objetivo final, a despeito da superinclusão de detalhes;



*Tangencialidade*: incapacidade para manter associações do pensamento dirigidas ao objetivo - o paciente nunca chega do ponto inicial ao objetivo final desejado;

*Fuga de idéias*: verbalizações rápidas e contínuas, ou jogos de palavras que produzem uma constante mudança de uma idéia para outra; as idéias tendem a estar conectadas e, mesmo em formas menos graves, podem ser difíceis de ser acompanhadas pelo ouvinte;

*Ecolalia consonante*: repetição automática de palavras ou frases, com entonação e forma que produzem efeito sonoro de rima;

*Incoerência*: fala ou pensamento essencialmente incompreensíveis aos outros, porque as palavras ou frases são reunidas sem uma conexão com lógica e significado.

(0) Sem alterações

(1) Circunstancial; pensamentos rápidos.

(2) Perde objetivos do pensamento; muda de assuntos freqüentemente; pensamentos muito acelerados

(3) Fuga de idéias; tangencialidade; dificuldade para acompanhar o pensamento; ecolalia consonante

(4) Incoerência; comunicação impossível.

(X) Não avaliado

#### 08. Conteúdo

Este item compreende idéias e crenças apresentadas pelo paciente, variando, de acordo com a intensidade, de idéias novas e/ou incomuns ao paciente, ideação supervalorizada

(ou seja, crença falsa, intensamente arraigada, porém susceptível à argumentação racional), a delírios (crenças falsas, baseadas em inferências incorretas sobre a realidade, inconsistentes com a inteligência e antecedentes culturais do paciente, e que não podem ser corrigidas pela argumentação). Conteúdos comumente encontrados no paciente maníaco, incluem:

*Idéias místicas*: de conteúdo religioso;

*Idéias paranóides*: crença de estar sendo molestado ou perseguido;

*Idéias de grandeza*: concepção exagerada da própria importância, poder ou identidade, incluindo posses materiais, qualidades incomuns e relacionamentos especiais com personalidades famosas ou entidades místicas;

*Idéias de referência*: crença de que o comportamento dos outros tem relação consigo próprio ou de que eventos, objetos ou outras pessoas possuem um significado particular e incomum para si.

(0) Normal

(2) Novos interesses e planos compatíveis com a condição sócio-cultural do paciente, mas questionáveis.

(4) Projetos especiais totalmente incompatíveis com a condição sócio-econômica do paciente; hiper-religioso.

(6) Idéias supervalorizadas

(8) Delírios

(X) Não avaliado

09. *Comportamento disruptivo agressivo*

Este item compreende a atitude e as respostas do paciente ao entrevistador e à situação da entrevista. O paciente pode apresentar-se desconfiado ou irônico e sarcástico, mas ainda assim respondendo aos questionamentos, ou então não cooperativo e francamente agressivo, inviabilizando a entrevista.

- (0) Ausente, cooperativo.
- (2) Sarcástico; barulhento, às vezes, desconfiado.
- (4) Ameaça o entrevistador; gritando; entrevista dificultada.
- (6) Agressivo; destrutivo; entrevista impossível.
- (X) Não avaliado

#### *10. Aparência*

Este item compreende a apresentação física do paciente, incluindo aspectos de higiene, asseio e modo de vestir-se.

- (0) Arrumado e vestido apropriadamente
- (1) Descuidado minimamente; adornos ou roupas minimamente inadequados ou exagerados.
- (2) Precariamente asseado; despenteado moderadamente; vestido com exagero.
- (3) Desgrenhado; vestido parcialmente; maquiagem extravagante.
- (4) Completamente descuidado; com muitos adornos e adereços; roupas bizarras.
- (X) Não avaliado

#### *11. Insight (discernimento)*

Este item refere-se ao grau de consciência e compreensão do paciente quanto ao fato de estar doente. Varia de um entendimento adequado (afetivo e intelectual) quanto à presença da doença, passando por concordância apenas frente à argumentação, chegando a uma negação total de sua enfermidade, referindo estar em seu comportamento normal e não necessitando de qualquer tratamento.

(0) Insight presente: espontaneamente refere estar doente e concorda com a necessidade de tratamento

(1) Insight duvidoso: com argumentação, admite possível doença e necessidade de tratamento.

(2) Insight prejudicado: espontaneamente admite alteração comportamental, mas não a relaciona com a doença, ou discorda da necessidade de tratamento.

(3) Insight ausente: com argumentação, admite de forma vaga alteração comportamental, mas não a relaciona com a doença e discorda da necessidade de tratamento.

(4) Insight ausente: nega a doença, qualquer alteração comportamental e necessidade de tratamento.

(X) Não avaliado

## 7.6. Anexo VI

### PANSS – Positive Scale

**P1 – DELÍRIOS:** Crenças que são infundadas, irrealistas, e idiossincráticas.

Base para avaliar: conteúdo do pensamento expresso na entrevista e sua influência nas relações sociais e no comportamento.

**1 – Ausente** – A definição não se aplica.

**2 – Mínimo** – Patologia questionável: pode estar no extremo superior dos limites normais.

**3 – Leve** – Presença de um ou dois delírios que são vagos, não cristalizados e não tenazmente mantidos. Os delírios não interferem com o pensamento, relações sociais ou comportamento.

**4 – Moderado** – Presença de uma série de delírios instáveis, pobremente formados, ou de alguns delírios bem formados que ocasionalmente interferem com o pensamento, relações sociais ou comportamento.

**5 - Moderado grave** – Presença de numerosos delírios bem formados que são tenazmente mantidos e ocasionalmente interferem com o pensamento, relações sociais ou comportamento.

**6 – Grave** – Presença de um conjunto estável de delírios que são cristalizados, possivelmente sistematizados, tenazmente mantidos, e claramente interferem com o pensamento, relações sociais ou comportamento.

**7 – Extremo** - Presença de um conjunto estável de delírios que são altamente sistematizados ou muito numerosos e que dominam a maior parte das áreas da vida do paciente. Isso frequentemente resulta em ação inapropriada ou irresponsável, a qual pode até mesmo ameaçar a segurança do paciente ou de outros.

**P2 – DESORGANIZAÇÃO CONCEITUAL:** Processo desorganizado de pensamento caracterizado pela ruptura do seqüenciamento direcionado a um objetivo (por ex., circunstancialidade, tangencialidade, afrouxamento das associações, ilogicidade grosseira, ou bloqueio do pensamento).

Base para avaliar: processo cognitivo-verbal observado durante o curso da entrevista.

**1 – Ausente** – A definição não se aplica.

**2 – Mínimo** – Patologia questionável: pode estar no extremo superior dos limites normais.

**3 – Leve** – O pensamento é circunstancial, tangencial ou paralógico. Há alguma dificuldade em direcionar os pensamentos para um objetivo, e algum afrouxamento das associações pode ser evidenciado sob pressão.

**4 – Moderado** – Capaz de focar os pensamentos quando as comunicações são breves e estruturadas, mas se torna frouxo ou irrelevante quando lida com comunicações mais complexas ou quando está sob mínima pressão.

**5 - Moderado grave** – Geralmente tem dificuldade em organizar os pensamentos, como evidenciado por freqüentes irrelevâncias, perda da conectividade, ou afrouxamento das associações quando não está sob pressão.

**6 – Grave** – O pensamento está seriamente descarrilado e internamente inconsistente, resultando em irrelevâncias grosseiras e ruptura dos processos de pensamento, o que ocorre quase constantemente.

**7 – Extremo** – Os pensamentos apresentam tal ruptura que o paciente está incoerente. Há um acentuado afrouxamento das associações, o que resulta em total fracasso da comunicação (por ex. “salada de palavras”) ou mutismo.

**P3 – COMPORTAMENTO ALUCINATÓRIO:** Relato verbal ou comportamento indicando percepções que não são geradas por estímulos externos. Isso pode ocorrer nas modalidades auditiva, visual, olfativa ou somática.

Base para avaliar: relato verbal e manifestações físicas durante o curso da entrevista, assim como relatos de comportamento por parte de trabalhadores de cuidados primários ou familiares.

**1 – Ausente** – A definição não se aplica.

**2 – Mínimo** – Patologia questionável: pode estar no extremo superior dos limites normais.

**3 – Leve** – Uma ou duas alucinações claramente formadas porém raras, ou então um número de percepções anormais vagas que não resultam em distorções do pensamento ou do comportamento.

**4 – Moderado** – Alucinações ocorrem freqüente mas não continuamente, e o pensamento e o comportamento do paciente são afetados apenas em pequena monta.

**5 - Moderado grave** – Alucinações são freqüentes, podem envolver mais de uma modalidade sensorial e tendem a distorcer o pensamento e/ou levam a uma ruptura no

comportamento. O paciente pode ter uma interpretação delirante dessas experiências e responder a elas emocionalmente e, às vezes, responder a elas verbalmente também.

**6 – Grave** – Alucinações estão presentes quase continuamente, causando uma grande ruptura no pensamento e no comportamento. O paciente as trata como percepções reais, o funcionamento é impedido pelas freqüentes respostas emocionais e verbais a elas.

**7 – Extremo** – O paciente está quase totalmente preocupado com alucinações, as quais virtualmente dominam o pensamento e o comportamento. As alucinações levam a uma rígida interpretação delirante e provocam respostas verbais e comportamentais, incluindo obediência a alucinações imperativas.

**P4 – EXCITAÇÃO:** Hiperatividade como refletida em comportamento motor acelerado, resposta exacerbada a estímulos, hipervigilância, ou excessiva labilidade afetiva.

Base para avaliar: manifestações comportamentais durante o curso da entrevista, assim como relatos de comportamento por parte de trabalhadores de cuidados primários ou familiares.

**1 – Ausente** – A definição não se aplica.

**2 – Mínimo** – Patologia questionável: pode estar no extremo superior dos limites normais.

**3 – Leve** – Tende a ficar levemente agitado ou hipervigilante durante a entrevista, mas sem episódios de excitação ou acentuada labilidade de humor. Pode haver uma leve pressão para a fala.



**4 – Moderado** – Agitação ou hipervigilância é claramente evidente durante a entrevista, afetando a fala e a mobilidade geral, ou episódios de “explosão” ocorrem esporadicamente.

**5 - Moderado grave** – Hiperatividade significativa ou freqüentes “explosões” de atividade motora são observadas, tornando difícil para o paciente permanecer sentado por mais do que alguns minutos num dado período.

**6 – Grave** – Excitação acentuada domina a entrevista, restringe a atenção, e afeta até certo ponto funções pessoais tais como alimentar-se e dormir.

**7 – Extremo** - Excitação acentuada interfere seriamente com a alimentação e o sono e faz as interações interpessoais virtualmente impossíveis. A aceleração da fala e da atividade motora podem resultar em incoerência e exaustão.

**P5 – GRANDIOSIDADE:** Auto-opinião exagerada e convicções não realistas de superioridade, incluindo delírios de habilidades extraordinárias, riqueza, conhecimento, fama, poder e correção moral.

Base para avaliar: o conteúdo do pensamento expresso na entrevista e sua influência no comportamento.

**1 – Ausente** – A definição não se aplica.

**2 – Mínimo** – Patologia questionável: pode estar no extremo superior dos limites normais.

**3 – Leve** – Alguma expansividade ou presunção é evidente, mas sem delírios de grandeza bem delineados.

**4 – Moderado** – Sente-se distinta e irrealisticamente superior aos outros. Alguns delírios pobremente formados sobre status ou habilidades especiais podem estar presentes mas não produzem nenhum efeito.

**5 - Moderado grave** – Delírios bem delineados relativos a habilidades notáveis, status, ou poder são expressos e influenciam a atitude mas não o comportamento.

**6 – Grave** – Delírios bem delineados de notável superioridade envolvendo mais de um parâmetro (riqueza, conhecimento, fama, etc.) são expressos, influenciam notavelmente as interações, e podem afetar o comportamento.

**7 – Extremo** – O pensamento, as interações e o comportamento são dominados por múltiplos delírios de assombrosa habilidade, riqueza, conhecimento, fama, poder, e/ou estatura moral, que podem ser bizarros.

**P6 – SUSPICÁCIA / PERSEGUIÇÃO:** Idéias de perseguição não realistas ou exageradas, como refletidas em precaução, uma atitude de desconfiança, hipervigilância suspicaz, ou delírios francos de que outros pretendem prejudicá-lo.

Base para avaliar: o conteúdo do pensamento expresso na entrevista e sua influência no comportamento.

**1 – Ausente** – A definição não se aplica.

**2 – Mínimo** – Patologia questionável: pode estar no extremo superior dos limites normais.

**3 – Leve** – Apresenta uma atitude “defensiva” ou de franca desconfiança, mas pensamentos interações e comportamento são minimamente afetados.

**4 – Moderado** – A desconfiança é claramente evidente e se impõe na entrevista e/ou no comportamento, mas não há evidência de delírios persecutórios, e não parece afetar a atitude ou as relações interpessoais do paciente.

**5 - Moderado grave** – O paciente mostra acentuada desconfiança, levando a uma extensa ruptura das relações interpessoais, ou então há delírios persecutórios bem delineados que têm um impacto limitado nas relações interpessoais e no comportamento.

**6 – Grave** – Delírios de perseguição penetrantes e bem delineados que podem ser sistematizados e que interferem significativamente nas relações interpessoais.

**7 – Extremo** – Uma rede de delírios persecutórios sistematizados domina o pensamento, as relações sociais e o comportamento do paciente.

**P7 – HOSTILIDADE:** Expressões verbais e não verbais de raiva e ressentimento, incluindo sarcasmo, comportamento passivo-agressivo, insulto verbal e agressão.

Base para avaliar: comportamento interpessoal observado durante a entrevista e relatos por parte de trabalhadores de cuidados primários ou familiares.

**1 – Ausente** – A definição não se aplica.

**2 – Mínimo** – Patologia questionável: pode estar no extremo superior dos limites normais.

**3 – Leve** – Comunicação indireta ou disfarçada de raiva, tal como sarcasmo, desrespeito, expressões de hostilidade, e irritabilidade ocasional.

**4 – Moderado** – O paciente apresenta uma atitude excessivamente hostil, exibindo irritabilidade freqüente e expressão direta de raiva ou ressentimento.

**5 - Moderado grave** – O paciente está altamente irritável e, em certas ocasiões, está verbalmente insultuoso ou ameaçador.

**6 – Grave** – Ausência de cooperação e insultos ou ameaças verbais notavelmente influenciam e seriamente afetam as relações sociais. O paciente pode estar violento e destrutivo, mas não está fisicamente agressivo em relação aos outros.

**7 – Extremo** – Acentuada raiva resulta em extrema falta de cooperação, tornando impossível outras interações, ou episódio(s) de agressão física em relação aos outros.

## 7.7. Anexo VII

### ESCALA DE AVALIAÇÃO GLOBAL DE FUNCIONAMENTO (AGF)

Considerar o funcionamento psicológico, social e ocupacional como fazendo parte de um continuum hipotético de saúde-doença mental. Não incluir prejuízo no funcionamento devido a limitações físicas (ou ambientais).

Código (Obs.: Usar códigos intermediários quando apropriado, p.ex., 45, 68, 72)

**100 – 91** Funcionamento superior em um largo espectro de atividades, os problemas da vida nunca parecem ficar sem solução, é procurado por outros devido às suas muitas qualidades positivas. Ausência de sintomatologia.

**90 – 81** Ausência ou sintomatologia mínima (por exemplo, ansiedade ligeira antes de um exame), bom funcionamento em todas as áreas, interesse e envolvimento num espectro alargado de atividades, eficaz socialmente, de uma maneira geral satisfeito com a vida, os problemas e as preocupações não ultrapassam os do dia-a-dia (por exemplo, discussão ocasional com familiares).

**80 – 71** Se estiverem presentes sintomas, estes representam reações transitórias e esperadas a fatores de stress psicossocial (por exemplo, dificuldade em concentrar-se depois de uma discussão familiar); apenas uma ligeira deficiência do funcionamento social, ocupacional ou escolar (por exemplo, atraso temporário no rendimento escolar).

**70 – 61** Alguma sintomatologia ligeira (por exemplo, humor deprimido e insônia ligeira) OU alguma dificuldade no funcionamento social, ocupacional ou escolar (por exemplo, ociosidade ocasional ou furto no seio do agregado familiar), mas bastante bom funcionando de uma maneira geral, tem algumas relações interpessoais significativas.

**60 – 51** Sintomatologia moderada (por exemplo, afeto embotado e discurso circunstancial, ataques de pânico ocasionais) OU dificuldade moderada no funcionamento social, ocupacional ou escolar (por exemplo, poucos amigos, conflitos com colegas ou colaboradores).

**50 – 41** Sintomatologia grave (por exemplo, ideação suicida, rituais obsessivos graves, frequentes furtos em lojas) OU qualquer deficiência do funcionamento social, ocupacional ou escolar (por exemplo, ausência de amigos, incapaz de manter um emprego).

**40 – 31** Alguma deficiência em testes de realidade ou na comunicação (por exemplo, o discurso é, por vezes, ilógico, obscuro ou irrelevante) OU deficiência maior em várias áreas, tais como trabalho ou escola, relações familiares, juízos, pensamento ou humor (por exemplo, homem deprimido que evita os amigos, negligencia a família e é incapaz de trabalhar; é frequente a criança espancar crianças mais novas, tem uma atitude de desafio em casa e mau rendimento escolar).

**30 – 21** O comportamento é consideravelmente influenciado por atividade delirante ou alucinações OU grave deficiência na comunicação ou nos juízos (por exemplo, por vezes incoerente, atua com rudeza despropositadamente, preocupação suicida) OU incapacidade de funcionamento em quase todas as áreas (por exemplo, fica na cama todo o dia; não tem trabalho, nem casa nem amigos).

**20 – 11** Algum perigo de magoar-se a si próprio ou aos outros (por exemplo, tentativas de suicídio sem esperar claramente a morte; frequentemente violento; excitação maníaca) OU não consegue ocasionalmente manter a higiene mínima pessoal (por exemplo, suja-se com fezes) OU acentuada deficiência na comunicação (por exemplo, muito incoerente ou sem expressão verbal).

**10 – 1** Perigo persistente de magoar-se a si próprio ou aos outros (por exemplo, violência recorrente) OU incapacidade persistente para manter o mínimo de higiene pessoal OU ato suicida grave esperando claramente a morte.

**0** Informação insuficiente.

## 7.8. Anexo VIII

### ESCALA DE IMPRESSÃO CLÍNICA GLOBAL – VERSÃO BIPOLAR (CGI-BP)

#### Item I – Gravidade da doença

Considerando sua experiência clínica total com pacientes bipolares, quão gravemente doente tem estado o paciente durante a última semana?

MANIA: \_\_\_\_\_

DEPRESSÃO: \_\_\_\_\_

TR. BIPOLAR GLOBAL: \_\_\_\_\_

#### Escores:

- 1 – Normal, não doente** (sem sintomas)
- 2 – Minimamente doente** (sintomas mínimos, manteve funcionamento eficiente)
- 3 – Levemente doente** (baixo nível de sintomas, sofrimento subjetivo, pouco ou nenhum prejuízo funcional)
- 4 – Moderadamente doente** (alguns sintomas proeminentes, prejuízo funcional moderado)
- 5 – Acentuadamente doente** (sintomas significativos, prejuízo funcional muito substancial)
- 6 – Gravemente doente** (sintomas muito evidentes, incapaz de funcionar na maioria das áreas)
- 7 – Muito gravemente doente** (sintomas extremos, completamente incapacitado, requerendo cuidados extra)