

## Exploratory Study of the Diagnostic Abilities of the Baptista Depression Scale – Adult Version (EBADEP-A)

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**Abstract:** This study's objective was to analyze the diagnostic capabilities of a depression screening scale. For that, this scale was administered along with two diagnostic instruments, namely, the structured clinical interview from the DSM-IV (SCID-CV) and the Hamilton Depression Scale (HAM-D), which are considered to be the gold standard for diagnosing depressive disorders. Participants were 22 subjects diagnosed by psychiatrists with Major Depressive Disorder. The EBADEP-A correctly identified cases of depression, showing a high correlation with the HAM-D, which indicates the scale correctly captures most depressive symptoms, even though it was initially used as a depression-screening tool.

**Keywords:** depression, diagnosis, tracking, psychometrics

## Estudo Exploratório das Capacidades Diagnósticas da Escala Baptista de Depressão – Versão Adulto (EBADEP-A)

**Resumo:** O presente estudo tem por objetivo analisar as capacidades diagnósticas de uma escala de *screening* para depressão. Para tal, esta foi administrada juntamente com dois instrumentos diagnósticos, quais sejam, a Entrevista estruturada clínica para DSM-IV (SCID-CV) e a Escala Hamilton de Depressão (HAM-D), consideradas padrão ouro para o diagnóstico de transtornos depressivos. Participaram do estudo 22 sujeitos previamente diagnosticados por psiquiatras com Transtorno Depressivo Maior. Como resultados, a EBADEP-A conseguiu identificar corretamente os casos de depressão, demonstrando alta correlação com a HAM-D, indicadora de que a escala consegue captar grande parte dos sintomas depressivos, mesmo sendo inicialmente um instrumento de rastreamento de depressão.

**Palavras-chave:** depressão, diagnóstico, rastreamento, psicometria

## Estudio Exploratorio de las Capacidades de Diagnóstico de la Escala Baptista de Depresión - Versión Para Adultos (EBADEP-A)

**Resumen:** Este investigación tiene como objetivo analizar las capacidades de diagnóstico de una escala de evaluación de depresión. Para eso, se administró junto con dos otros instrumentos de diagnóstico, es decir, la entrevista clínica estructurada para el DSM-IV (SCID-CV) y la Escala de Depresión de Hamilton (HAM-D), considerados el estándar oro para el diagnóstico de los trastornos de depresión. Participaron 22 sujetos previamente diagnosticados con trastorno depresivo mayor por psiquiatras. Los resultados mostraron que la EBADEP-A identificó correctamente los casos de depresión, mostrando alta correlación con el HAM-D, lo que indica que la escala es capaz de captar la mayor parte de los síntomas depresivos, aunque al principio es un instrumento de detección para la depresión.

**Palabras clave:** depresión, diagnóstico, rastreo, psicometría

Research focusing on depression dates to many decades ago and we observe changes during this period in the understanding of how this mood disorder is classified and understood (Matews, s.d.; Wong, 2007). Until current consensual nosological definitions were reached, that is, the Diagnostic and Statistical Manual of Mental Disorders – DSM-IV-TR (American Psychiatric Association [APA], 2000) and the International Classification of Diseases – ICD 10 (World Health Organization [WHO], 1993), many theories were developed in an attempt to understand this disease.

Acknowledging the role biological, cognitive, affective and social aspects play in depression, various studies have

focused on the investigation of its relationship with other situations such as heart disease, the post-partum period, and its prevalence among twins. There are studies addressing the relationship between depression and other constructs such as anxiety, social support, personality traits, quality of life, learning, attention span and memory, and the impact of medication treatment (Cuijpers, van Straten, van Schaik, & Andersson, 2009; Jacob & Loureiro, 1996; Jardim, 2011; Ribeiro, Oliveira, Coutinho, & Araújo, 2007; Ziegelstein, Thrombs, Coyne, & de Jonge, 2009).

In general, studies show that women are two to three times more likely to develop depressive disorders (Culbertson, 1997; Essau, Lewinsohn, Seeley, & Sasagawa, 2010; National Institute of Mental Health [NIMH], 2000; You, Merritt, & Conner, 2010). Other factors considered to be risk factors for depression and that can contribute to the development

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of this disorder include low social support, health problems and substance abuse (WHO, 2003), poor coping strategies (Lynch, Moore, Moss-Morris, & Kendrick, 2011), unemployment (Jardim, 2011; WHO, 2003), and being between 15 and 44 years old (Bromet et al., 2011; WHO, 2012a).

The increased number of studies addressing depression is justified considering the estimates that 350 million people around the world experience depression regardless of age, sex, education or social status (WHO, 2012a). From this perspective, there is a concern to efficaciously assess depressive symptoms in order to reduce the number of incorrect diagnoses, ease treatment and monitor improvement (Machado-Vieira & Soares, 2007; Pérez-Stable, Miranda, Muñoz, & Ying, 1990; Razzouk, Alvarez, & Mari, 2009). It is estimated that from 50% to 75% of people with some mental disorder are overlooked by the health system (Derogatis & Culpepper, 2008).

Because it presents multiple facets and overlaps other diseases, both mental and physical, the depressive disorder, as with any other multifactor disorder, requires careful assessment in order to accurately diagnose it. The Diagnostic and Statistical Manual of Mental Disorders – DSM-IV-TR and the International Classification of Diseases – ICD 10 (WHO, 1993) present standardized categories and classifications for the diagnosis of this disorder through interviews and the use of depressive symptoms checklists. These manuals require that a combination of symptoms be present, not only the quantity but also the quality and duration of symptoms for Major Depressive Disorder to be diagnosed. It is also imperative that the patient presents at least two weeks of a number of mandatory symptoms, in addition to some further symptoms (APA, 2000; OMS, 1993). In 2013, the APA will be launching the DSM-5, which, by design, will not present major changes in terms of the main and secondary symptoms of a Major Depressive Episode (APA, 2013).

Simon (2000) investigated in a longitudinal study the prognosis of depression in 225 patients initiating treatment with antidepressants to treat unipolar depression. The patients were selected using the mood disorders module of the Structured Clinical Interview for the DSM-III-R – SCID and remission was assessed using the Hamilton Depression Rating Scale – HAM-D. The patients were reassessed every three months over the course of two years after beginning treatment. Of the total participants, 167 (74%) were female, aged 42 years old on average. The average score obtained by these patients on the HAM-D was 13.8 (SD = 2.5), while the use of psychotropic drugs indicated remission in 90% of the patients. The authors reported some limitations, such as the patients' socio-demographic variables. Most were from the middle class were employed, and were well educated, which are indicated in the literature as important variables to take into account when assessing mood disorders.

Cuijpers et al. (2009) performed a meta-analysis using data selected from 1996 to 2007 to examine the effects of psychological treatment in adults cared for by primary health

care (PHC) units. A total of 8,861 papers were found in the databases PubMed (n = 1,403), PsycINFO (n = 2,097), EMBASE (n = 2,207), and Cochrane Central Register of Controlled Trials (n = 2,204) and 950 dissertation abstracts were included. Of the total, 890 publications were recovered among papers, dissertations (n = 33), psychotherapy studies (n = 115), and psychotherapy control studies conducted in PHC services (n = 15). The authors randomly selected 15 studies for analysis, while 10 of them applied the Beck Depression Inventory – BDI and six applied the HAM-D, both in the pre- and post-tests. The analysis of the BDI showed scores ranging from 19 to 29, indicating a moderate level of depression, while the average score on the HAM-D ranged from 13.3 to 22.3, considering the version with 17 items. The authors report that the studies did not show evidence of how effective the psychological treatment was in the case of patients who were recruited for the study only after systematic screening, noting this was a limitation of the study.

Due to the multifactor nature involved, different forms to measure depression should be reconsidered, among them psychological tests (Baptista, Argimon, & Yoshida, 2012). The use of tests is a way to reduce subjectivity when dealing with the human sciences (Pasquali, 2004). The use of instruments with appropriate psychological qualities is important to the project of improving the accuracy of data and diagnoses.

We note, however, that the tests often present problems. Patients who are not depressed may end up being classified as such (false positives) in the same way that tests may fail to detect the symptomatology in patients who have the disorder (false negatives) (Sox, 1996). For this reason, the attempt to reach a diagnosis should be the best possible, considering the highest amount of data to help the evaluator collate the range of symptoms, such as whether the score obtained on the test in fact indicates the presence or absence of some type of mental disorder.

For these and other reasons, the tests should be considered a complement to psychological assessment and their scores should not be interpreted as the only source of information on human behavior. Additionally, tests should be carefully selected, since even if the instrument has good psychometric qualities, its appropriate use and choice will be determinant of how much accurate and valid it will be (Anache & Reppold, 2010; Urbina, 2007). Poorly trained professionals may turn a good test into a test with dubious qualities.

Hence, choosing an assessment instrument depends on different criteria, ranging from the focus of testing to validity evidence and cultural and developmental variables such as age, sex, and country of origin, for instance. Due to the complexity of assessing this phenomenon, different scales were developed around the world. Proof of this is found the study by Santor, Gregus and Welch (2006), who identified more than 280 measures used to assess the disease between 1940 and 2000. The authors explain there are good reasons to develop different instruments, including the approach

guiding the development of the instrument, culture and the clinical spectrum one desires to assess.

Calil and Pires (1998) propose a division in the content assessed by the scales based on Thompson (1989) and consider eight categories: mood, vegetative or somatic, motor, social, cognitive, anxiety and irritability categories. Based on this, the different measures of depression are justified, since each will give priority to one category to the detriment of another. Obviously, such measures should be considered according to the place of assessment and the depressive symptoms expected, given a developmental stage.

Testing situations can be a limitation in the different types of studies. According to Botega, Bio, Zomignani, Garcia and Pereira (1995), the differentiation of psychiatric cases in a general hospital is more difficult especially because, in addition to psychiatric distress, there are physical diseases and social problems. Sharp and Lipsky (2002) assert that the greatest difficulty in identifying patients with depression is in the PHC services due to the limited time professionals can spend with patients. Such conjectures indicate that screening instruments are a good alternative for both professionals and patients since these situations require a high degree of sensitivity.

Clearly, screening methods are not the only way to assess depression, nor they should be, since they have shortcomings, such as a lack of detail concerning some characteristics like duration and frequency of symptoms, observations that only an assessment based in diagnostic instruments can provide. Nonetheless, one has to consider how easily these instruments can provide relevant information for professionals to identify the disease. Finally, we deem it relevant to consider some caveats concerning the selection of a screening instrument, as well as in the selection of any modality of assessment methods, which should take into consideration the characteristics of the target population, the instrument's psychometric qualities and facility in applying and scoring it, in addition to the time required for its application and the interpretation of results (Sharp & Lipsky, 2002).

As previously discussed, there is a large number of scales to assess levels of symptomatology of depression, various ones having evidence of validity in different contexts, such as the case of the HAM-D or in Brazil, restricted for clinical use and approved by the Federal Council of Psychology (Psychological Test Assessment System [SATEPSI], 2012), such as the Beck Depression Inventory in its BDI and BDI II forms, which are scales focused on the somatic, affective, mood and cognitive symptomatology. The Baptista Depression Scale (Adult version) – EBADEP-A, which was constructed and validated in Brazil and focuses on symptomatic issues in addition to social issues, irritability and anxiety (Baptista, 2012; Baptista et al., 2012). Even though there are different studies validating this scale, none has compared it with other diagnostic instruments assessing depression and applied and scored by the clinical practitioners.

Therefore, this study's objective was to analyze the diagnostic abilities of a depression screening scale. An exploratory study addressing the diagnostic properties of the EBADEP-A was conducted with individuals with bipolar depression being cared for in a Day Hospital and a private psychiatric outpatient clinic, both located in cities in the interior of São Paulo, Brazil. Semi-structured clinical interviews were held and one scale was applied and scored by the clinical practitioner while the other was self-applied.

## Method

### Participants

Twenty-two individuals participated in the study. They were patients cared for either by a Day Hospital or by a private psychiatric outpatient clinic; both were located in the state of São Paulo, Brazil. All the participants were previously assessed and were diagnosed as having depression before being included in the study. Of these, 16 (72.7%) were women and six (27.3%) were men, aged between 20 and 79 years old ( $M = 48.4$ ;  $SD = 16.23$ ). Four (18.2%) were single, six were married (27.3%), three were widowed (13.6%), and two were either separated or divorced (9.1%). Eight participants (36.4%) reported being employed at the time of assessment and seven (31.8%) had no occupation. Seven participants (31.8%) did not answer the questions concerning marital status and occupation.

To complement the study, the participants were asked whether a family member had ever been diagnosed with depression or was undergoing any psychological treatment. Of the total participants, 11 (50%) reported that a family member had been diagnosed with depression by a psychologist or psychiatrist and 10 (45.5%) reported these were undergoing psychological treatment.

### Instruments

*Questionnaire of identification:* Self-report questionnaire used to collect personal data such as age, sex, marital status, occupation, family diagnostic history, and current adherence to treatment for depression.

*Structured interview for the DSM-IV – clinical version (SCID-CV):* Translated and adapted by Del-Ben et al. (2001). It is composed of questions divided into modules, based on which the prerequisites of the DSM-IV manual should be met to diagnose the disorder. The first 15 questions of Axis I, concerning the diagnosis of Major Depression Disorder, were used in this study. Minor depression (dysthymia) or depression secondary to alcohol abuse or other drugs were not investigated. The instrument's reliability was tested with the psychiatric patients of a hospital in the interior of São Paulo using test-retest methodology with an interval of two days between the interviews. A total of 45 patients participated. They were aged 34.9 years old on average ( $SD = 11.8$ ) and most were women (60%). Level of agreement for the

diagnosis (Kappa) was above .90 with the level of significance at 1%, which led to the conclusion that the scale has good reliability even though it does not present all the criteria of the original version.

*Hamilton Depression Scale – HAM-D:* Instrument to screen symptoms of depression, considered the “gold standard” in the psychiatric field (Werlang & Oliveira, 2006). It is a structured interview with different versions. The one used in this study had 17 questions with answers ranging from zero to four. The scale’s minimum score is zero and the maximum score is 68. Scores up to six indicate no diagnosis, between 7 and 17 indicates mild depression, from 18 to 24 indicates moderate depression, and scores above 25 indicate severe depression (Gallucci Neto, Campos Júnior, & Hübner, 2001; Moreno & Moreno, 1998).

*Baptista Depression Scale (Adult version) – EBADEP-A:* Was developed by Baptista (2012) to screen depression, without the intention to diagnose. It has 45 items, which are composed of two statements: the first is positive and the second is negative, and both refer to the same depressive symptom. In general, the scale’s total score is interpreted in such a way that the higher the score, the greater the depressive symptomatology. Nonetheless, studies of criteria validity and transference of rules between the Beck Depression Inventory and the EBADEP-A enabled the establishment of cut-off points for the Brazilian sample. Hence, the scores are also classified as minimum (or absence of symptomatology), mild, moderate and severe symptomatology.

The EBADEP-A’s items were divided based on the symptomological categories proposed by Calil and Pires (1998), namely: mood, vegetative or somatic, motor, social, cognitive symptoms, and anxiety and irritability. The following proportion of items was found for the scale: 33% cognitive symptoms; 20% mood symptoms; 18% social; 18% vegetative; 4.5% motor symptoms; 4.5% irritability; and 2% anxiety. Baptista and Gomes (2011) conducted an analysis of the instrument’s psychometric qualities based both on the Classical Test Theory (CTT) and the Item Response Theory (IRT) for 1,467 people aged 26.44 years old on average ( $SD = 9.55$ ), mostly women (74%), in the states of São Paulo and Minas Gerais, Brazil. The IRT analysis of the model’s adjustment parameters showed values considered to have goodness of fit with a low percentage of adjustment. The study on differential functioning showed 17 items with response bias, 11 of which were for women. In regard to the analyses based on the CTT, the ANOVA revealed the instrument’s ability to discriminate non-depressive groups from all the other sample groups: companions of general hospital inpatients from graduate students; graduate students from general hospital’s inpatients and psychiatric patients; inpatients from depressive individuals; and individuals diagnosed as depressive from all the previous groups. These results were considered to be evidence of construct and criterion validity.

## Procedure

**Data collection.** The questionnaires were applied after the Institutional Review Boards at the authors’ institution of origin and at the facilities approved the study and the participants provided their consent through signing free and informed consent forms. All the patients went through psychiatric assessment and received treatment before they were interviewed. The interviews took an average of two and one half hours and were individually held in the following order: the SCID-CV, the HAM-D and the EBADEP-A. Inclusion criteria were being 18 years old or older and having being previously diagnosed with Depressive Disorder by a psychiatrist. Exclusion criteria were being a drug user, having neurological problems or any other condition that impeded the individuals from answering or understanding the interview or the questionnaires.

**Data analysis.** Descriptive analysis was performed to verify central tendency measures and inferentially verified by Spearman’s  $\rho$  non-parametric correlation. The level of significance adopted was  $p \leq .05$ .

## Ethical Considerations

This study was approved by the Institutional Review Board at the Universidade São Francisco (Process no. 0422.0.142.000-11) on December 7, 2011, and all the current ethical parameters were met.

## Results and Discussion

Even though this study was conducted with a limited number of participants, some of the studied trends on depression could be observed. Initially, we perceived that most patients diagnosed by the psychiatrist were women, which is in agreement with studies reporting that women have a greater tendency, two to three times more likely than men, to present the disorder (Botega et al., 1995; Culbertson, 1997; Essau et al., 2010; NIMH, 2000; Simon, 2000; You et al., 2010). We also observed that most were unemployed, which corroborates studies indicating that unemployment is a risk factor for depression (Jardim, 2011; WHO, 2003).

It is worth noting that such data should be carefully analyzed. First, because even though various studies suggest that women have a greater tendency than men to experience major depressive disorder, it is known that women tend to seek health services, both public and private, more frequently than men, which may result in higher reporting of such cases among women, inflating comparative indexes (Gomes, Nascimento, & Araújo, 2007). Another relevant factor is unemployment, since one cannot affirm that patients were released from their occupations due to the disease or if the opposite occurred, that is, the lack of an occupation led to the disorder.

Still, in regard to the risk factors for depression investigated here, the average age of the patients is within the age group considered by the World Health Organization to be a risk factor

for depression (WHO, 2012b). Additionally, data on the presence of the diagnosis among family members were researched. While in this study, half of the participants reported that some family member had already being diagnosed with depression, the study by Tucci, Kerr-Corrêa and Dalben (2001) reports that almost 70% reported no depression in the family, which raises the importance of further studies to more systematically study information available regarding this issue.

Further analyses either confirmed or disconfirmed the diagnoses previously provided by the psychiatrist with the use of instruments. Based on the SCID-IV, the researchers did not confirm the diagnosis of depression in five of the patients (22.7%). The average score found on the HAM-D was 12.36, a median of 10.5 and a mode of 3 ( $SD = 7.54$ ). Lack of depression was verified in six of the patients (27.3%); 10 patients (45.5%) presented mild depression; five (22.7%) were considered to have moderate depression; and one patient (4.5%) was classified as having severe depression.

The minimum score obtained on the EBADEP-A was three and the maximum score was 128, with an average of 65.18, median of 67 and the mode was 93 ( $SD = 39.15$ ). Based on the scores determined by Baptista (2012), 10 patients (45.5%) were classified as “no depressive symptomatology”, three (13.6%) were classified as having mild symptomatology, five (22.7%) classified as having moderate symptomatology and four (18.2%) as having severe symptomatological evidence of depression.

Table 1 shows that three of the patients, whose diagnosis was not confirmed by the SCID-CV, were diagnosed with mild depression by the HAM-D, while two patients were classified as not having depression. Of the total of patients with a confirmed diagnosis, one was classified with severe depression.

Table 1  
*Comparison Between the Diagnoses Obtained Through the HAM-D and the EBADEP-A in Relation to Diagnostic Confirmation Provided by SCID-CV*

	SCID-CV Unconfirmed Diagnosis	MDD Confirmed	Total
<b>HAM-D</b>			
No Depression Diagnosis	2 (9.1%)	4 (18.2%)	6 (27.3%)
Mild Depression	3 (13.6%)	7 (31.8%)	10 (45.5%)
Moderate Depression	0	5 (22.7%)	5 (22.7%)
Severe Depression	0	1 (4.5%)	1 (4.5%)
Total	5 (22.7%)	17 (77.3%)	22 (100%)
<b>EBADEP-A</b>			
No Depression Symptomology	5 (22.7%)	5 (22.7%)	10 (45.5%)
Mild Symptomology	0	3 (13.6%)	3 (13.6%)
Moderate Symptomology	0	5 (22.7%)	5 (22.7%)
Severe Symptomology	0	4 (18.2%)	4 (18.2%)
Total	5 (22.7%)	17 (77.3%)	22 (100%)

The remaining results are also in agreement with those found in different studies involving the application of “gold standard” instruments. As in the study of Simon (2000), for instance, even though the average age was lower, the average score obtained on the HAM-D was approximately 14, while the average score obtained in this study on the HAM-D was approximately 13. In regard to the EBADEP-A’s diagnostic quality, the results were considered positive. Through comparing diagnostic characteristics, we verified that all the participants whose diagnosis was not confirmed by the SCID-IV were also classified by the EBADEP-A as having “no depressive symptomatology”. As for the HAM-D, agreement in diagnoses was observed in all the EBADEP-A’s classifications (mild, moderate and severe). It was, therefore, possible to verify the EBADEP-A’s ability to identify diagnostic characteristics based on the classification, number and intensity of symptoms presented.

We also observed that all the participants whose diagnoses were not confirmed by the SCID-CV were classified as “no depressive symptomatology” by the EBADEP-A. In relation to the remaining diagnoses, there was a more homogeneous distribution for the EBADEP-A in relation to the classifications mild, moderate and severe (Table 1). The comparison between the EBADEP-A and the HAM-D revealed various situations in which there was agreement, that is, patients received the same diagnoses on both scales (Table 2).

Table 2 shows situations in which the diagnoses were not the same for both scales. Six patients (27.3%) were diagnosed by the HAM-D as having mild depression while the EBADEP-A classified them as not having the symptomatology; another three participants (13.6%), received this same diagnosis by the HAM-D but were classified as having moderate symptomatology by the EBADEP-A.

A complementary analysis of correlation between the sums of the EBADEP-A’s and the HAM-D’s scores was performed. The index of correlation was considered to be strong ( $\rho = .69$ ) with a high level of significance ( $p \leq .001$ ) indicating a high level of association between the tests, even though they do not assess the same construct. Hence, we verified that the screening scale for depressive patients is a reliable measure when compared to the “gold standard” scale used to assess depression, indicating that some of their items have common elements.

The analysis of Pearson’s non-parametric correlation indicated a strong positive magnitude between the raw sums of both the EBADEP-A and the HAM-D, which is a favorable result for the EBADEP-A, since these are different scales assessing the same construct but with distinct symptomatology focuses. While the HAM-D gives priority to some characteristics at the expense of others, the EBADEP-A presents a balance among the cognitive, mood, social and vegetative symptoms, while motor symptoms, anxiety and irritability appear with a lower prevalence. In fact, these differences in the tests’ contents can explain the variations in the severity ranges of both scales (Baptista,

2012; Calil & Pires, 1998). Additionally, considering that the application of the HAM-D takes considerable time in terms of diagnostic interviews, further studies can confirm whether its replacement by self-reported instruments is indicated in some cases, which would ease administration both in terms of application and time spent. This possibility

should, however, be carefully considered because, as noted by Pepper and Nieuwsma (2006), depressive symptomatology is not necessarily related to a Major Depression Episode, even when high scores are obtained on screening scales. They also state that the gold standard for the diagnosis of MDE is a structured interview.

Table 2  
*Comparison Between Diagnostic Categories Obtained Through the HAM-D and the EBADEP-A*

		HAM-D				
		Absence of Diagnosis	Mild Depression	Moderate Depression	Severe Depression	Total
EBADEP-A	No Symptomology	4 (18.2%)	6 (27.3%)	0	0	10 (45.5%)
	Mild Symptomology	2 (9.1%)	1 (4.5%)	0	0	3 (13.6%)
	Moderate Symptomology	0	3 (13.6%)	2 (9.1%)	0	5 (22.7%)
	Severe Symptomology	0	0	3 (13.6%)	1 (4.5%)	4 (18.2%)
	Total	6 (27.3%)	10 (45.5%)	5 (22.7%)	1 (4.5%)	22 (100%)

Finally, it was possible to reassess three participants three months after applying the instruments. One widowed 79 year-old man initially scored 32 points on the EBADEP-A, then scored 27 points. His diagnosis remained the same, mild depression, but his symptoms

had diminished. The diagnosis suggested by the SCID-CV remained the same, that is, absence of depression. Additionally, the score obtained on the HAM-D changed from 15 to seven; the classification of mild depression also remained (Table 3).

Table 3  
*Diagnostic Comparison After Three Months (n = 3)*

	Sex	First Application		Second Application	
		EBADEP-A	HAM-D	EBADEP-A	HAM-D
Patient 1	Male	32 (mild)	15 (mild)	27 (mild)	7 (mild)
Patient 2	Fem.	104 (moderate)	24 (moderate)	19 (no symptomatology)	11 (mild)
Patient 3	Fem.	128 (moderate)	22 (moderate)	103 (moderate)	21 (moderate)

As shown in Table 3, the second patient returning after three months was a single woman (did not report age). She had been previously diagnosed with “moderate symptomatology” and was diagnosed as “no depressive symptomatology” in the second assessment based on the EBADEP-A classification. The diagnosis of moderate depression according to the HAM-D was then considered mild depression. She was initially diagnosed with Major Depressive Disorder according to the SCID-CV, but that diagnosis was not maintained. The third patient was a married 58 year-old woman who was also reclassified as not presenting depression based on the SCID-CV and was reassessed from 128 to 103 points on the EBADEP-A; that is, the diagnosis of moderate depression was maintained but her symptoms were reduced. The diagnosis of moderate depression obtained with the HAM-D was also the same; the score changed from 22 to 21. The patients had been referred for treatment after the first interview with the psychiatrist.

As a result of the treatment prescribed by the psychiatrist, the symptoms diminished. Two of the three patients remained with the same diagnostic classification obtained by

the EBADEP-A, according to the SCID’s diagnostic classification, which is positive, since even though the SCID-CV did not detect the diagnosis, the symptoms were reduced considerably according to the EBADEP-A, but not enough to reclassify the patient. In fact, the great clinical challenge at this point, which is beyond the scope of this study, was to keep the patients with a low level of symptomatology (Lynch et al., 2011; Muñoz, Cuijpers, Smit, Barrera, & Leykin, 2010).

It is important to stress that an effective assessment of depression is able to facilitate treatment and promote the improvement of patients, as noted by some authors (Machado-Vieira & Soares, 2007; Pérez-Stable et al., 1990; Razzouk et al., 2009). In this study, for instance, five people who were referred by the psychiatrist for treatment did not meet the scales’ criteria of chronicity for depression, showing the need to discuss the complete process of psychological assessment, not only the testing, since patients can be classified as false positives, as stressed by Sox (1996).

Therefore, the more information the professional has to help answer this question, the more efficient the assessment process, alleviating the patient’s distress and enabling improved quality of life (Sox, 1996). Likewise, the importance of not using

a test as the single source to interpret results is addressed, since a test is only one part of the information required by diagnostic criteria. Evidently, the more valid and reliable the method is, the more accurate the diagnostic screening (Anache & Reppold, 2010; Urbina, 2007).

### Final Considerations

There has been, over the years, an increase in the number of studies addressing depressive disorder (WHO, 2003). Coupled with this, there is a growing concern among health professionals for the assessment of symptoms to be efficient, both to reduce the number of incorrect diagnoses and to facilitate the treatment of the disorder and follow-up of the disease (Machado-Vieira & Soares, 2007; Pérez-Stable et al., 1990; Razzouk et al., 2009).

In fact, assessment through the use of tests is one of the ways to reduce subjectivity, especially in the field of human sciences research (Pasquali, 2004). For that, well-determined criteria based on instruments with appropriate psychometric qualities should be established (Urbina, 2007). For this reason, this study's objective was to analyze the diagnostic abilities of a depression screening scale. An exploratory study was performed of the EBADEP-A's diagnosed properties in individuals with bipolar depression who were at the time cared for by a day hospital and a psychiatric private outpatient clinic, comparing its diagnostic classifications with the DSM-V Structured Interview (SCID-CV) and the Hamilton scale (HAM-D).

The study showed that the EBADEP-A can be a useful scale not only to screen symptoms, but also to provide a potential diagnosis of depression, as well. Limitations are noted since, as highlighted by Simon (2000), the patients' origin in this convenience sample, users of a day hospital and private outpatient clinic, compromises the ability to make generalizations in limiting the potential interpretation of results because variations in terms of economic status, education and other risk factors mentioned in the literature are not taken into account. Another issue is the reduced sample size between the first and second assessment, since not all the patients initially included in the study could be reassessed. Additionally, the patients who were reassessed were already in treatment, which should also be considered. As highlighted by Botega et al. (1995) and Sharp and Lipsky (2002), the differentiation of psychiatric cases in general hospitals and in PHC services is extremely difficult, because usually there are cases of comorbidities and it is not always possible to investigate the influences of these on depressive disorders. The difficulty in data collection in this study was mainly due to this reason, along with potential comorbidities of Major Depressive Disorders with other disorders or medical conditions.

On the other hand, even with such methodological restrictions, the need to identify patients with depression occurs in such a way that screening instruments can be useful, as long as they present good psychometric qualities,

among other elements, such as ease of applying, scoring and interpreting the instrument (Sharp & Lipsky, 2002). Therefore, the existence of a validated instrument constructed within the Brazilian context such as the EBADEP-A can be extremely beneficial. In summary, the scale obtained satisfactory results in relation to its diagnostic qualities, which encourages further studies with larger samples in order to either confirm or disprove the results found here.

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*Received:* Sep. 24<sup>th</sup> 2012

*1<sup>st</sup> Revision:* Jun. 3<sup>rd</sup> 2013

*Approved:* Aug. 14<sup>th</sup> 2013

*How to cite this article:*

Baptista, M. N., Gomes, J. O., & Carneiro, A. M. (2013). Exploratory study of the diagnostic abilities of the Baptista Depression Scale – Adult Version (EBADEP-A). *Paidéia (Ribeirão Preto)*, 23(56), 301-309. doi:10.1590/1982-43272356201304

