

## Scale of Stereotypes about the Mentally Ill: Construction and Preliminary Psychometric Evidence

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### Abstract

Developing awareness of stereotypes regarding people with mental disorders has great relevance, as it implies understanding the characteristics of the shared conceptualization society has toward this social group. Such understanding identifies elements for action aiming to favor the social inclusion of these individuals. This research aimed to develop the Scale of Stereotypes about the Mentally Ill (SSMI) by gathering psychometric data. Two studies were performed. In *Study 1*, 210 university students with a mean age of 24.07 ( $SD = 5.77$ ) participated. In *Study 2*, 206 university students with a mean age of 24.35 ( $SD = 6.51$ ) were included. In the first study, principal component analysis indicated the existence of two components (Threat Stereotypes,  $\alpha = 0.81$ ; Disability stereotypes,  $\alpha = 0.80$ ) with 10 items in total. In the second study, a confirmatory factor analysis indicated that the two-factor model proposed for the scale was adequate:  $\chi^2/df = 2.31$ , GFI = 0.93, CFI = 0.94, and RMSEA = 0.08 (90% CI = 0.057 – 0.103). It was concluded that this measure exhibits apparent factor validity and internal consistency and can be used to measure stereotypes about individuals with mental illness adequately.

**Keywords:** Stereotypes, mental illness, scale, validity, reliability.

### Escala de Estereótipos sobre o Doente Mental: Construção e Evidências Psicométricas Preliminares

### Resumo

Conhecer os estereótipos acerca da pessoa com transtorno mental é de grande relevância, pois implica em compreender as características do pensamento socialmente compartilhado acerca desse grupo social, tendo-se, assim, elementos para uma atuação no sentido de favorecer a inclusão social desses indivíduos. Esta pesquisa objetivou desenvolver a Escala de Estereótipos sobre o Doente Mental (EEDM), reunindo evidências psicométricas. Foram realizados dois estudos. No *Estudo 1*, participaram 210 universitários com idade média de 24,07 anos ( $DP = 5,77$ ). No *Estudo 2*, participaram 206 universitários com idade média de 24,35 anos ( $DP = 6,51$ ). No primeiro estudo, análises de componentes principais indicaram a existência de dois componentes (Estereótipos de Ameaça,  $\alpha = 0,81$ ; Estereótipos de Incapacidade,  $\alpha =$

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Support: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES/Bolsa Doutorado) e Chamada universal MCTI/CNPq n° 01/2016 Processo 408065/2016-8.

0,80) com 10 itens no total. No segundo estudo, uma análise fatorial confirmatória indicou que o modelo bifatorial proposto para a escala era adequado:  $\chi^2/gl = 2,31$ , GFI = 0,93, CFI = 0,94 e RMSEA = 0,08 (IC 90% = 0,057 - 0,103). Concluiu-se que esta medida possui evidências de validade fatorial e consistência interna, podendo ser adequadamente utilizada para medir estereótipos frente ao doente mental.

Palavras-chave: Estereótipos, doente mental, escala, validade, precisão.

## Escala de Estereotipos acerca del Paciente Mental: Construcción y Evidencias Psicométricas Preliminares

### Resumen

Conocer los estereotipos acerca de la persona con trastorno mental es de gran relevancia, pues implica comprender las características del pensamiento socialmente compartido sobre ese grupo social, teniendo, así, elementos para actuación en el sentido de favorecer la inclusión social de esos individuos. Esta investigación objetivó desarrollar la Escala de Estereotipos sobre el Enfermo Mental (EEDM), reuniéndose evidencias psicométricas. Se realizaron dos estudios. En el *Estudio 1*, participaron 210 universitarios con edad media de 24,07 años ( $DE = 5.77$ ). En el *Estudio 2*, participaron 206 universitarios con edad media de 24,35 años ( $DE = 6.51$ ). En el primer estudio, análisis de componentes principales indicaron la existencia de dos componentes (Estereotipos de Amenaza,  $\alpha = 0.81$ , Estereotipos de Incapacidad,  $\alpha = 0.80$ ) con 10 ítems en total. En el segundo estudio, análisis factorial confirmatorio indicó que el modelo bifatorial propuesto para la escala era adecuado:  $\chi^2/gl = 2.31$ , GFI = 0.93, CFI = 0.94 y RMSEA = 0.08 (IC 90% = 0.057 – 0.103). En conclusión, esta medida posee evidencias de validez factorial y consistencia interna, pudiendo ser adecuadamente utilizada para medir estereotipos frente al paciente mental.

Palabras clave: Estereotipos, enfermo mental, escala, validez, fiabilidad.

Madness has had different connotations throughout history, ranging from a phenomenon of eccentricity to a punishment by the gods. It was permitted and exalted, but it was also bounded within the limits of what is considered normal (Foucault, 2012). Upon being appropriated as a medical domain, madness ceased to be considered a strange manifestation of human behavior and acquired a disease status that needed to be corrected in specialized institutions: namely, mental asylums (Guimarães, Borba, Maftum, Larocca, & Nimtz, 2015). With this change in treatment facilities, there also came a change in terminology: “madness” became “mental illness.”

“Madness,” now denominated as “mental illness,” came to be perceived as an illness that deserved rigorous classification and corrective treatment. Thus, psychiatry brought to light the need to re-dimension the sphere of activity of doctors to let their knowledge emerge and

made the mental asylum the ideal place for them to perform their interventions (Cruz, 2017). Given that they represented a threat to society, the mentally ill had to be confined in asylums, where care was characterized by exclusion, abandonment, violence, and control of symptoms (Pinho et al., 2013). According to Goffman (2008), in these so-called total institutions, the subject ceases to be an actor and becomes the object of institutional interventions.

These historical elements are part of the beliefs that society continues to hold about mad/mentally ill individuals, who are perceived as dangerous and unpredictable and therefore must be kept away from social interaction (Melo, Pegoraro, Santos, & Pillon, 2016; Sousa, Maciel, Medeiros, & Vieira, 2016). This reality contributes to their being victims of prejudice and being subjected to the most severe forms of social exclusion (Abramenko, Lovisi, Fonseca, & Abelha, 2017).

Despite the persistence of these prejudiced and exclusionary ideas, the mental health care model is currently undergoing a process of transformation, and its guidelines are focused on new perspectives related to deinstitutionalization, social inclusion, and the humanization of care. The break with the outdated asylum model culminated in the implementation of the Psychiatric Reform, which can be understood as a set of political, social, cultural, administrative, and legal initiatives whose purpose is to transform the relationship of society with mental illness. The Reform includes features ranging from transformations in care and in medical-psychiatric knowledge to changes in social practices. In this context, a new terminology has emerged for the so-called mentally ill, compatible with the precepts of Psychiatric Reform and human rights: people with mental disorders or people with psychic suffering (Almeida et al., 2015; Santos & Cardoso, 2015; Souto et al., 2015).

The process of deinstitutionalization appears in the Psychiatric Reform as a prominent theme; however, as a political and social process, this movement is complex, multifactorial, and surrounded by not only practical changes, such as the closure of hospitals and the opening of substitutive services, but also ideological changes and the fall of psychiatric paradigms. For the deinstitutionalization process to occur, it is necessary for the whole community to embrace this in its daily life and to offer support and a favorable environment such that people with psychic suffering are included in society like other citizens (Abramenko et al., 2017; Costa, Jorge, Coutinho, Costa, & Holanda, 2016).

Nevertheless, Ribeiro (2015) stated that although people with psychic suffering have been released from asylums, the population's mindset about the phenomenon of mental illness remains chained to the walls of the hospital; such ideological chains exist as an obstacle to the advancement of the Psychiatric Reform. Thus, the author emphasized that the main challenge of the Reform lies not in changing the care model but in building a new social place for psychic suffering. Laws have been changed, but society

is still marked by old stereotypes about madness, which characterize it as something that must be confined and kept distant for the good of society (Angelini & Caccia-Bava, 2015; Follmer & Jones, 2017; Neves et al., 2012).

A number of studies – both national (Amorim & Lavrador, 2017; Melo et al., 2016; Oliveira & Azevedo, 2014) and international (Ayazi, Lien, Eide, Shadar, & Hauff, 2014; Corrigan, Powell, & Michaels, 2014; Kopera et al., 2015) – have indicated that there is a strong negative social image of people with mental disorders, which is linked to a complex network of stereotypes and prejudices. According to Gil (2010), there are four main stereotypes that society still holds regarding people with psychic suffering: that they are dangerous and should be avoided; that they are the agents responsible for their disorders, which means that they have weak personalities; that they are incompetent and in need of authority figures to make decisions for them; and that they are childish and need to be kept under the care of parental figures. Angelini and Gaccia-Bava (2015) added that dangerousness and disability stereotypes are the most common. Pereira (2002) indicated that the stereotypes are sufficiently significant for the generation of negative attitudes or prejudices, as well as discriminatory patterns of behavior.

The social processes of categorization place individuals in groups: ingroups (groups to which the individual belongs) and outgroups (groups to which they do not belong). For each classification that separates “us” and “them”, images are added that enable the representation of others as different from us. These images are stereotypes, which can be defined as shared information and attributes about a particular social group. This shared information involves generalizations that are made about the groups (Lima, Faro, & Santos, 2016; Torres & Neiva, 2011).

Accordingly, stereotypes have an important role in intergroup relations. On this topic, Pereira (2002, 2011) highlighted that stereotypes are essential in the organization of the knowledge and of the relationships between minority and majority groups, because they provide the

components for the creation of expectations about social entities. Mendes (2011) reiterated that stereotypes have the function of simplifying the complex social world, providing a kind of script to be activated for the functioning of social interactions, because they provide explanations about the behavior of outgroups. In other words, stereotypes are important cognitive components of prejudice. Thus, stereotypes can lead to prejudice that can lead to discrimination.

Stereotypes about people with mental disorders (e.g., dangerousness) tend to trigger negative emotional reactions (e.g., fear of this social group), which, in turn, may culminate in avoiding contact with members of the group due to the fear of being attacked (i.e., discrimination; Mendes, 2011; Torres, Camargo, & Bousfield, 2016). Thus, the socially shared stereotypes about people with psychic suffering substantiate behaviors reflective of exclusion and distancing, which evokes in the population feelings of insecurity and fear of this social group. Such stereotypes, which are often fueled by ignorance or not knowing the other, fulfill strategic functions in accommodating intergroup relations of power (Tajfel, 1982; Torres et al., 2016).

Thus, developing awareness of stereotypes attached to the mentally ill is of great relevance, because it involves understanding the characteristics of the shared conceptualization society has toward this social group and therefore identifies elements for action aimed at stimulating the social inclusion of these individuals. Despite the relevance of research addressing this theme, few such studies have been conducted in Brazil, and few national instruments evaluate these stereotypes. Searches performed in Google Scholar (2018) and in the Index Psi, Medline, PubMed, PsycINFO, and Scopus databases – using “scale”, “stereotypes”, and “mental illness” as keywords – did not identify any studies related to empirical research on the construction or adaptation of any measurement that would evaluate stereotypes about the mentally ill.

To facilitate future studies in the field of mental health, researchers must have valid and reliable measurement instruments for the context

of study; the absence of such instruments in the present domain justifies the conduction of this study, the main objective of which was to develop and find evidence for the factor validity and internal consistency of the Scale of Stereotypes about the Mentally Ill (SSMI). The SSMI fills an existing gap for the measurement of stereotypes about mental illness, because some instruments validated in Brazil, and which are related to this theme, focus mainly on the evaluation of attitudes (Gonçalves, Abelha, Legay, & Lovisi, 2008), opinions (Pedrão et al., 2005), and beliefs about mental illness (Maciel, Pereira, Lima, & Sousa, 2015), but not specific stereotypes about this social group.

### **Study 1 – Development of the SSMI and Exploratory Analysis**

The objective of this study was to develop the SSMI and provide psychometric evidence of factor validity and internal consistency of this scale in a sample of university students.

### **Method**

#### ***Participants***

A total of 210 university students participated in the study, distributed among psychology (37.6%), medicine (27.6%), nursing (28.1%), and occupational therapy programs (6.7%) in public and private universities located in the city of João Pessoa, Paraíba state (PB), Brazil. The participants had a mean age of 24.07 years ( $SD = 5.77$ ), and 72.4% were female. The sample was selected via a nonprobabilistic convenience sampling procedure. University students enrolled in programs that are in some way related to the field of mental health participated in this study.

#### ***Instruments***

For the data collection, the SSMI and a sociodemographic questionnaire (age, occupation, gender) were used. The SSMI consisted of a 10-item experimental version, and participants were asked to indicate – on a 7-point semantic differential scale – which word better described their perception about the mentally ill.

### Procedures

The items of the scale constructed in this present study (SSMI) were developed based on data in the literature on stereotypes about the mentally ill and the results obtained in a study by Sousa, Maciel, and Medeiros (2018), in which 50 high school students, 50 university students, and 50 health professionals participated. For the data collection, the Free Word Association technique was used, using the stimuli “mad” and “mentally ill.” The data were analyzed by Correspondence Factor Analysis in the *Tri-Deux-Mots* software.

The preliminary version of the SSMI consisted of 14 adjective pairs, with each pair consisting of bipolar adjectives (i.e., a semantic differential) – a positive adjective and a negative adjective. The semantic differential response scale was chosen because, according to Kashiwagi (2002), its use has some advantages. According to the author, a scale of this type can reduce the time of application, which can guarantee greater quality in the participant’s response. The other advantage is that it can be more easily understood by different audiences, such as those with different levels of education or from different nationalities.

Subsequently, the constructed items were subjected to expert judge review and then to semantic analysis, following the psychometric criteria (Pasquali, 2011). For the expert judge review, seven master’s – and PhD-level judges with knowledge about the study subject and experience in psychological evaluation were invited. An agreement of 70% between the judges was adopted as the minimum criterion – four items were excluded after this analysis. The first version of the SSMI consisted of 10 items and underwent semantic validation with a group of five psychology students in order to assess the clarity of the items and the format of the response scale.

The final SSMI version was composed of 10 items, and participants were requested to indicate – on a 7-point semantic differential scale – which word better described their perception about the mentally ill. It is known the Psychiatric

Reform adopts a nomenclature that reflects the positions adopted and the ideas defended by the movement; however, in this study, it was decided to use the term “mentally ill” to name the instrument, because this nomenclature is still commonly used by the population to refer to people who exhibit some level of psychic suffering, in both the national and international context (Maciel et al., 2015; Mfoafo-M’Carthy, & Huls, 2014; Pescosolido, Medina, Martin, & Long, 2013).

After the development stage, the instrument was administered in the classroom and was answered individually. All subjects were informed of the voluntary nature of their participation in the study, the guarantee of anonymity of the answers given, and the respect for the ethical guidelines that govern research with human beings.

### Data Analysis

The data were analyzed using the Statistical Package for Social Sciences (SPSS) for Windows, version 21.0. In addition to descriptive statistical procedures (mean, standard deviation, and frequencies) and Student’s *t* test to ascertain the discriminative power of the items, principal component analysis was performed. The criteria for principal component extraction were as follows: eigenvalue equal to or greater than 1 (Kaiser criterion), Horn’s parallel analysis (1965), analysis of the graphical representation of the eigenvalues (Cattell criterion), and the interpretability of the extracted components (Garson, 2013). The rotation method used was the oblimin, because it is assumed that the components are correlated (Damásio, 2012). The value of 0.40 was adopted as the cut-off point for the factor loadings (Matsunaga, 2010). For items with high factor loadings in one or more components, the item was kept in the component for which the highest loading was observed. Cronbach’s alpha was used to evaluate the internal consistency of the measurement; values above 0.70 are considered adequate (Nunnally, 1991).

### Ethical Procedures

The study was approved by the Research Ethics Committee of the Center for Health Sciences at the Federal University of Paraíba (Protocol no. 0543/15), in accordance with all research requirements outlined in Resolution 510/2016.

### Results

The first step was to assess the discriminative power of the SSMI items. To do so, lower and upper criterion groups were created based on the median of the total SSMI scores (sum of the score of all the items in the scale). Next, Student *t*-tests were performed for independent samples. The results indicated that all the items satisfactorily discriminated between the two groups, as their *p* values < .05.

Subsequently, a principal component analysis (PCA) was performed without setting, a priori, the rotation method and the number of components to be extracted. The Kaiser-Meyer-Olkin (KMO) index and Bartlett's Test of Sphericity were used to assess the adequacy

of the data for factor analysis, and both were considered satisfactory – KMO = 0.88 and for Bartlett's Test of Sphericity,  $\chi^2(45) = 804.520$ ;  $p < .001$  (Hair, Anderson, Tatham, & Black, 2005).

In this analysis, two components were found that satisfied the Kaiser criterion (eigenvalue equal to or greater than 1), and together, these accounted for 59% of the total variance. According to the Cattell criterion (screeplot), two components were identified in the scale structure. Considering the theoretical evidence of the weakness of these two criteria, a parallel analysis was performed, considering 210 participants and 10 variables with 1000 simulations. The parallel analysis led to the extraction of two components with eigenvalues greater than those obtained randomly, which suggests the permanence of two components in the factor structure of the SSMI.

A new PCA was performed, considering the extraction of two components and an oblimin rotation. The results of this analysis are shown in Table 1.

**Table 1**  
**Factor Structure of the Scale of Stereotypes about the Mentally Ill**

Items	C 1	C 2	h <sup>2</sup>
5. Reliable/Unreliable	<b>0.77</b>	0.50	0.63
1. Harmless/Dangerous	<b>0.75</b>	0.37	0.56
6. Predictable/Unpredictable	<b>0.74</b>	0.11	0.61
8. Controlled/Uncontrolled	<b>0.74</b>	0.51	0.59
4. Docile/Aggressive	<b>0.73</b>	0.45	0.56
3. Competent/Incompetent	0.39	<b>0.82</b>	0.68
7. Productive/Unproductive	0.33	<b>0.82</b>	0.68
10. Intelligent/Unintelligent	0.31	<b>0.81</b>	0.66
9. Normal/Abnormal	0.59	<b>0.62</b>	0.52
2. Conscious/Unconscious	0.40	<b>0.60</b>	0.38
Number of items	5	5	
Eigenvalue	4.60	1.31	
Explained variance (%)	46	13	
Cronbach's alpha ( $\alpha$ )	0.81	0.80	

Note. C1 = Threat stereotypes and C2 = Disability stereotypes. In bold, the strongest factor loadings of items on factors.

Component 1, named *Threat Stereotypes*, comprised 5 items (Example of item: Harmless/Dangerous), had an eigenvalue of 4.599, explained 46% of the total variance, and had an internal consistency of  $\alpha = 0.81$ . Component 2, named *Disability Stereotypes*, consisted of 5 items (Example of item: Productive/Unproductive), had an eigenvalue of 1.311, explained 13% of the total variance, and had an internal consistency of  $\alpha = 0.80$ . These results seem to provide evidence in favor of the factor validity and internal consistency of the SSMI. To determine to what extent the two-component model is adequate, a new study was conducted. The second study was performed with the objective of testing – on a different sample – the replicability of the proposed two-factor structure, using confirmatory factor analysis (CFA).

### Study 2 – Confirmatory Factor Analysis of the SSMI

The objective of this study was to gather additional empirical evidence of the factor validity and accuracy of the SSMI in a new sample. Through CFA, it was sought to test the replicability of the two-factor structure obtained in Study 1 and to compare it with alternative factor solutions.

## Method

### Participants

A total of 206 university students participated in the study, distributed among the psychology (38.3%), medicine (24.3%), nursing (25.7%), and occupational therapy programs (11.7%), in public and private universities located in the city of João Pessoa, PB. The participants had a mean age of 24.35 years ( $SD = 6.51$ ), with 25.2% males and 74.8% females. The sample was selected via a nonprobabilistic convenience sampling procedure.

### Instruments

For data collection, a sociodemographic questionnaire (age, program, gender) and the

SSMI – developed in Study 1 – were used. The SSMI consisted of 10 items distributed into two factors: Threat Stereotypes (five items,  $\alpha = 0.81$ ) and Disability Stereotypes (five items,  $\alpha = 0.80$ ). Respondents were asked to indicate – on a 7-point semantic differential scale – which word better described their perception about the mentally ill.

### Procedures

The data collection procedure was the same as that described in Study 1.

### Data Analysis

In addition to SPSS (version 21.0), which was used to calculate descriptive statistics, the AMOS statistical package (version 18) was used. The latter was used to perform confirmatory factor analyses, taking into account the covariance matrix and adopting the Maximum Likelihood (ML) estimator. The missing cases were replaced by the mean. To evaluate the fit of the proposed model and to compare it with alternative models, the following indices were considered:  $\chi^2$  (chi-square) – the higher this value, the worse the fit;  $\chi^2/df$  (i.e., the ratio of the chi-square value to the degrees of freedom) – on this index, values below 5 indicate an adequate fit of the model; the Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), and the Comparative Fit Index (CFI), whose values range from 0 to 1, with those close to 0.90 indicating a satisfactory fit; and Root-Mean-Square Error of Approximation (RMSEA) – with its 90% confidence interval (90% CI), where values between 0.05 and 0.08 are considered ideal, but values up to 0.10 are acceptable (Byrne, 2010; Garson, 2012). In addition to these indicators, the chi-square difference ( $\Delta\chi^2$ ) and the expected cross-validation index (ECVI) were used to compare the models. The  $\Delta\chi^2$  is a statistical test with a significance level, accepting  $p < .05$  and penalizing models with a higher  $\chi^2$  value. In the ECVI, lower values reflect a model with a better fit (Garson, 2012).

**Ethical Procedures**

The ethical procedures were the same as those described in Study 1.

**Results**

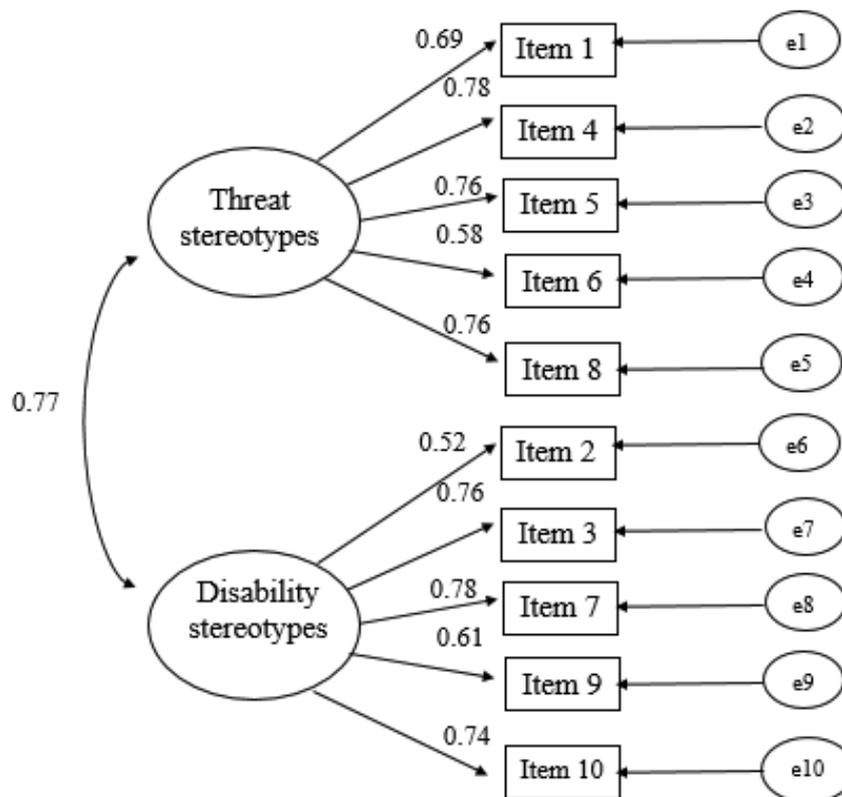
Initially, a CFA was performed, testing the fit of the proposed two-factor model (Model 1), which showed good fit indices. However, it was decided to also assess the relevance of this model when compared to an alternative model, since the comparison of competing

models would enable testing the robustness of the proposed model, as well as further analyzing the fit indices (Byrne, 2010; Thompson, 2004). Thus, the one-factor model with all items fitting onto the general factor (Model 2) was tested in an attempt to determine if the scale would have a single factor: stereotypes about the mentally ill. Model 1 had better fit indices than Model 2, thus confirming the two-factor nature of the Scale of Stereotypes about the Mentally Ill, and including the following factors: threat stereotypes and disability stereotypes. The results are shown in Table 2.

**Table 2**  
**Fit Indices of the Models Tested**

Models	$\chi^2$ (df)	$\chi^2/df$	GFI	AGFI	CFI	ECVI	RMSEA (CI 90%)	$\Delta\chi^2$ ( $\Delta df$ )
Model 1	78.77 (34)	2.31	0.93	0.88	0.94	0.58	0.08 (0.057-0.103)	-----
Model 2	140.83 (35)	4.02	0.86	0.78	0.87	0.88	0.12 (0.101-0.143)	62.06* (1)

Note. Model 1 = Two factor and Model 2 = One factor.  
\*  $p < .01$ .



**Figure 1.** Two-factor structure of the Scale of Stereotypes about the Mentally Ill (SSMI).

All items had saturations (lambdas) significantly different from zero ( $\lambda \neq 0$ ;  $z > 1.96$ ,  $p < .05$ ), with values ranging from 0.52 (Item 2 – Conscious/Unconscious) to 0.78 (Item 4 – Docile/Aggressive). Thus, in general, the model fit indicators support a two-factor structure of the measure of stereotypes about the mentally ill. Figure 1 shows the factor structure of this model.

## Discussion

The studies described above provide satisfactory evidence of the factor validity and internal consistency of a new measure of stereotypes about the mentally ill. At the end of the two studies, a short, self-administered 10-item instrument was produced that can be used in future studies.

In Study 1, a two-factor structure of the SSMI was identified, with five items in one factor (Threat stereotypes) and five items in another factor (Disability stereotypes). The instrument indicated evidence of factor validity and good indicators of internal consistency (Clark & Watson, 1995; Nunnally, 1991).

In Study 2, the proposed two-factor structure for the Stereotype Scale about the Mentally Ill was replicated through the CFA in a different sample, obtaining fit indices that, although not excellent, can be considered favorable in accordance with the literature (Byrne, 2010). The test of an alternative explanatory model indicated that Model 2 did not evidence a satisfactory fit and that Model 1 was more appropriate. Therefore, the two-factor structure of the SSMI was replicated, ensuring satisfactory evidence of factor validity and internal consistency.

The *Threat Stereotypes* dimension of the SSMI grouped items that characterize the mentally ill as dangerous and elicitors of fear. Throughout the ages, the idea has been spread in society that people with psychic suffering can attack or even kill people through impulsive and uncontrollable actions; the idea of mental illness and the image created has remained associated with violent and aggressive people (Weber & Juruena, 2017). Such a perception hampers

deinstitutionalization and social reintegration, thus promoting the detention of people with psychic suffering in mental asylums for the protection of society (Santos & Rosa, 2016).

The *Disability Stereotypes* dimension of the SSMI brought together items that represent the mentally ill as people with no ability to be independent and coexist in society. Maciel, Maciel, Barros, Sá, and Camino (2008) noted that the mentally ill are seen as irresponsible and unfit to fulfill their duties and obligations. According to these authors, this encourages exclusion, because in a capitalist society, productivity is a parameter for social inclusion. Estanqueiro (2014) stated that the disability stereotype represents a barrier against the full participation of people with psychic suffering in social, educational, and professional contexts, in addition to fostering a lack of autonomy.

Stereotypes are important components of prejudice; therefore, it is fundamental to know and analyze such constructs in order to confront prejudice against the mentally ill, socially include this group, and consequently implement the precepts of the Psychiatric Reform (Mendes, 2011). Assmar and Ferreira (2004) stated that stereotypes are dynamic and reflect a changing society – that is, the stereotypical characteristics associated with social groups may change. Thus, an intervention at the level of stereotypes seems to be effective in advancing the process of social inclusion of the mentally ill.

The findings of this study provide evidence that the SSMI is parsimonious, valid, and accurate, filling a gap in the Brazilian context regarding instruments for measuring stereotypes about the mentally ill, which can be applied in various contexts. This includes the context of substitutive services, where such measurement instruments can be used to identify pejorative stereotypes about the mentally ill in the community and consequently perform interventions in order to build a real and demystified image of this social group, as well as to advance the implementation of the Psychiatric Reform.

Although the SSMI is presented as an appropriate option for measuring stereotypes

about mental illness, it is possible to identify some limitations in the present studies. For example, the fact that measurement involved self-reporting may have introduced effects of social desirability into the data. It is also necessary to emphasize that the samples cannot be considered representative of the Brazilian population, because they consisted exclusively of university students. This feature limits generalization of the results to other sample groups that do not have the same characteristics of the sample herein. However, the goal was not to generalize the results to the entire population but to provide the scientific community a scale with adequate psychometric properties.

Future studies are recommended that test the factor validity and internal consistency of the SSMI in other samples, such as in the general population and among mental health professionals, and that assess the convergent validity of the SSMI with other instruments that measure similar constructs (e.g., scales for beliefs, opinions, or attitudes toward the mentally ill). Additionally, it is important to emphasize the relevance of conducting research that seeks to measure stereotypes about the mentally ill through implicit measures, in order to minimize the effects of social desirability.

Finally, the SSMI can be satisfactorily used to assess the stereotypes people exhibit regarding the mentally ill. The factor solution identifying two dimensions of stereotypes proved to be the most adequate in both studies. The results found here could contribute significantly to the field of mental health and consolidation of the Psychiatric Reform, starting from the mapping of and subsequent intervention regarding stereotypes that encourage the social exclusion of people with mental illness.

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*Received: 16/03/2018*  
*1<sup>st</sup> revision: 06/08/2018*  
*Accepted: 07/08/2018*



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