

ORIGINAL ARTICLE

Stigma toward individuals with mental disorders among Brazilian psychiatrists: a latent class analysis

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Objective: The stigma toward individuals with mental disorders is highly prevalent, not only in the general population but among health care providers as well. The aim of this study was to identify subgroups based on stigmatizing beliefs related to psychiatric disorders among Brazilian psychiatrists, as well as to investigate their association with clinical and personality characteristics.

Methods: Latent cluster analysis was used to find subgroups of cases in multivariate data according to a psychotic (schizophrenia) and a nonpsychotic disorder (attention-deficit hyperactivity disorder). The clusters for each psychiatric disorder were compared according to sociodemographic, emotional traits, and personality characteristics.

Results: A total of 779 psychiatrists answered the questionnaire. Three different subgroups of stigma levels were identified regarding schizophrenia: the highest (n=202 [51.7%]), intermediate (108 [27.6%]), and the lowest (81 [20.7%]). Participants from the highest stigma group had a significantly longer time since graduation, higher anxiety-state scores, and lower positive affect. Two subgroups were identified with respect to attention-deficit hyperactivity disorder, although there were no differences between them in sociodemographic or clinical variables.

Conclusion: There were more subgroups of stigmatizing beliefs regarding psychotic disorders. Individual characteristics, such as those related to trait anxiety and affect, can be associated with high stigma toward schizophrenia.

Keywords: Social stigma; mental disorders; schizophrenia; attention-deficit hyperactivity disorder; psychiatrist

Introduction

Stigma toward individuals with mental disorders is highly prevalent. It is present in different cultures and populations¹⁻⁴ and is associated with poorer outcomes. Two systematic reviews found that the stigma surrounding psychiatric disorders is directly associated with less active help-seeking for mental disorders in the general population.^{5,6} Stigma has also been associated with suicide risk. Schomerus et al.⁷ evaluated data from 25 European countries to investigate the relationship between country-level stigma and suicide rates. The authors found a negative relationship between national suicide rates and social acceptance of persons with psychiatric disorders, even when including economic indicators in the analysis,

with the model explaining half of the variance in national suicide rates.⁷ The high prevalence of stigma and its association with poorer outcomes justify considering stigma a research priority in mental health.⁸

Unfortunately, stigma toward people with mental disorders is also highly prevalent among health care providers. Loch et al.⁹ investigated profiles of stigmatizing beliefs regarding schizophrenia among 1,414 Brazilian psychiatrists, finding three subgroup profiles, with most participants classified in the “great stigma” group, defined as higher scores in perceived prejudice and social distance dimensions.⁹ In a review on stigma in health and mental health care settings, some studies showed that psychiatrists had more negative stereotypes than the general population,¹⁰ including a more negative attitude

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than social workers and psychologists toward people with previous mental illness,¹¹ and a more negative attitude than psychologists and nurses toward the patients.^{12,13} Stigma toward individuals with psychiatric disorders could affect the health assistance provided by health care professionals. For instance, Corrigan et al.¹⁴ found that primary and mental health care professionals who endorsed stigmatizing characteristics in patients with schizophrenia were more likely not to refer them to a specialist or refill their prescription due to beliefs about poor treatment adherence. However, stigmatization by health care providers can vary according to psychiatric disorder. Vistorte et al.⁴ reported that primary care physicians had a more negative attitude toward individuals with schizophrenia than individuals with depression, suggesting that the clinical characteristics of the psychiatric disorder may influence the associated stigma.

Although some studies have addressed stigmatizing beliefs in health care providers, including psychiatrists,⁹ it is important to investigate stigma according to distinct disorders and associated variables. Age, gender, employment status, and personality traits, such as agreeableness and conscientiousness, have been associated with stigma toward individuals with psychiatric disorders,¹⁵⁻¹⁷ and depressive and anxiety symptoms have been associated with self-stigma.¹⁸ However, few studies have explored the relationship between these variables and stigmatization of different disorders by health care providers. Thus, the aim of this study was to identify subgroups according to stigmatizing beliefs about two psychiatric disorders, schizophrenia and attention-deficit hyperactivity disorder (ADHD), among Brazilian psychiatrists, as well as to investigate their association with clinical characteristics and personality traits. The reason for choosing these two disorders is their distinct clinical presentations. Schizophrenia usually manifests with positive symptoms (delusions and hallucinations) and negative symptoms (affect flattening, anhedonia, loss of initiative), cognitive impairment (working memory and executive function), and impaired social interaction.¹⁹ Individuals with ADHD, on the other hand, present with deficits in attention and hyperactivity-impulsivity and may also present impairment in working memory and inhibitory control.²⁰ Although some studies have addressed stigma toward ADHD,^{21,22} it has received far less attention than the stigma surrounding psychotic and affective disorders.²²

Methods

Study design and participants

The participants of this cross-sectional study were psychiatrists attending the XXXIII Brazilian Congress of Psychiatry in Florianópolis, state of Santa Catarina, Brazil, which took place from November 4-7, 2015. The Brazilian Congress of Psychiatry is the largest specialty meeting of the field in Latin America, with approximately 6,000 participants each year from all over the country, including almost 5,000 physicians. In 2015, the event had approximately 50 international speakers from 20 different countries.

Data collection

Thirty medical students previously trained by three of the authors (VPL, MLS, and APD) collected the data during the four days of the congress. The inclusion criteria were being a physician with a psychiatry residency, and being a native speaker of Portuguese. Each psychiatrist could answer the questionnaire only once. Additional caution was taken to protect the confidentiality of the answers: the researchers explained to the participants that the questionnaire had a number that matched the informed consent form, i.e., participants signed the informed consent form rather than the questionnaire. After completion, the questionnaire and the consent forms were stored in different places. Because the questionnaire involved sensitive information and the psychiatrists were in a professional and academic environment, the investigators believed that the answers would have greater reliability.

Measures

Demographics

Collected demographic data included sex, age, marital status, religion, years since graduation, graduate degree (MSc and/or PhD), type of work (predominantly private or public), and participation in teaching activities.

Clinical data

The Positive and Negative Affect Schedule (PANAS) evaluates positive and negative affect with 10 items each. Each item is measured on a five-point scale (1 = very slightly or not at all, 2 = a little, 3 = moderately, 4 = quite a bit, 5 = very much or extremely).^{23,24} The State-Trait Anxiety Inventory consists of 40 items, 20 for trait anxiety and 20 for state anxiety. In this study, we applied only the 20 trait anxiety items. Each item is measured on a four-point scale (1 = almost never, 2 = sometimes, 3 = often, 4 = almost always).^{25,26}

Personality traits

This study used the Big Five Inventory, a 44-item questionnaire that evaluates personality characteristics, including openness, conscientiousness, extraversion, agreeableness, and neuroticism.^{27,28} Some items are reversed, and the total score of each personality trait is given by the sum of the items, such that higher scores indicate higher levels of that dimension.

Stigma

We applied a questionnaire that has been used in similar surveys in Brazil and other countries.^{9,10,13,29-32} The instrument addresses four dimensions of stigma regarding a person with a psychiatric disorder. For this study, participants answered the questionnaire considering a patient with schizophrenia or ADHD, two disorders with different clinical presentations. The questionnaire was similar to that of Loch et al.⁹ Its structure is described below.

Restrictions on civil rights. Three items evaluated civil rights restrictions (involuntary admission, driver's license revocation, and voting rights restriction), each item has a yes/no option, agreeing or disagreeing with ideas about social restrictions.

Stereotyping. Twelve items assessed stereotyping, both positive (creative, healthy, self-controlled, gifted, reasonable) and negative (dangerous, unpredictable, stupid, bedraggled, abnormal, unreliable, weird). Each item is scored from 1 to 3 relative the general population (more, the same, or less, respectively).

Perceived prejudice. Nine items measured perceived prejudice (perception of general social attitudes toward persons with a psychiatric disorder).³³ Each item of this dimension is also scored from 1 to 3 (disagree, partially agree, or totally agree, respectively).

Social distance. Social distance was measured with an adaptation of the Social Distance Scale according to Link et al,³⁴ which assessed a participant's willingness to engage in social interaction with a person who has a psychiatric disorder (each item is scored from 1 to 3: definitely willing, probably willing, definitely unwilling, respectively).

Data analyses

Latent cluster analysis (LCA) is a subset of structural equation modeling used to find groups of cases in multivariate data. The first assumption for running an LCA is that all variables must be independent. As such, all stigma variables were evaluated regarding local independence using chi-square tests. Since the stereotypes 'less creative', 'less intelligent', and 'less hygienic' were highly correlated, 'less creative' was chosen as representative of these three stereotypes. Additionally, 'more unpredictable', 'less rational', and 'weirder' were also highly correlated. 'Less rational' was chosen as representative of these stereotypes. Since all perceived prejudice and social distance items were correlated, a continuous scale was calculated to generate a perceived prejudice score and a social distance score. Finally, 10 variables were included in the LCA model: eight categorical (six stereotypes, two condensed stereotypes) and two continuous (perceived prejudice and social distance scores).

To determine the best LCA solution, between-class differences in Akaike information criterion values, between-class differences in sample size-adjusted the Bayesian information criteria, the Vuong-Lo-Mendell-Rubinson likelihood ratio test, and entropy were used as parameters. In the first two types of criteria, the lower the value, the better the solution. For entropy, the closer the value approaches 1, the more homogeneous the classes are. The Vuong-Lo-Mendell-Rubinson likelihood ratio tests whether there is a significant difference between the x class solution and the $x-1$ class solution. If the p -value is significant, the solution with more classes should be chosen. After defining the best class solution, a general linear model and chi-square statistics were calculated to evaluate between-class differences in the continuous and categorical variables, respectively.

Categorical data are presented as relative and absolute frequencies and quantitative data as measures of central tendency (mean or median) and dispersion (standard deviation [SD] or interquartile range), depending on the normality of the distribution, and were tested according to the Kolmogorov-Smirnov test. Associations between the outcomes and categorical exposure variables were tested using the chi-square test and Student's t -test (or Mann-Whitney U for nonparametric distribution) for the continuous independent variables. To compare continuous variables between three groups, analysis of variance or the Kruskal-Wallis test was used, depending on whether the data was parametrically or nonparametrically distributed, respectively. All analyses were performed in MPlus version 5 (Windows) or SPSS 23 for Mac.

Ethics statement

Written informed consent was obtained from all subjects. All procedures involving human subjects/patients were approved by the human research ethics committee and were registered on Plataforma Brasil (CAAE 48599115.2.0000.0114). This research received no specific grants from any funding agencies or from the commercial or not-for-profit sectors.

Results

A total of 779 psychiatrists responded to the questionnaires, 391 for schizophrenia and 388 for ADHD. For those in the schizophrenia group, most were male (57.2%), married (67.3%), declared a religious affiliation (73.1%), and reported working in the private sector (70.6%). Approximately two-thirds had a family history of psychiatric treatment, and the median age was 39 years old (Table 1). For those in the ADHD group, the results were similar: most were male (57.2%), married (62.3%), declared a religious affiliation (72.4%), and reported working in the private sector (67.8%). A total of 68.4% had a family history of psychiatric treatment, and the median age was 39 years old (Table 2).

Based on the stigma characteristics included in the LCA, three different subgroups were identified for schizophrenia (Table 3): the highest stigma (202 [51.7%]), intermediate stigma (108 [27.6%]), and lowest stigma (81 [20.7%]) (Table 1). More than half of the psychiatrists were in the highest stigma subgroup. This subgroup had a significantly longer time since graduation than the lowest stigma subgroup (a median of 4 years more), significantly higher state anxiety scores than the intermediate stigma group, and significantly lower positive affect than the other two subgroups (Table 1).

For psychiatrists who responded to the ADHD stigma questionnaire, LCA identified two subgroups (Table 4), categorized as highest stigma and lowest stigma, the latter consisting of more than half of the participants (55.2%). According to the evaluated sociodemographic and clinical variables, we found no differences between these two subgroups (Table 2). The two highest stigma

Table 1 Comparison of sociodemographic, professional, and clinical variables between the three groups according to schizophrenia stigma

Variable	Total n=391	Highest stigma n=202 (51.7%)	Intermediate n=108 (27.6%)	Lowest stigma n=81 (20.7%)	p-value
Sociodemographics					
Sex*					
Female	167 (42.8)	88 (43.8)	46 (42.6)	33 (40.7)	0.89
Male	223 (57.2)	113 (56.2)	62 (57.4)	48 (59.3)	
Age, median (IQR)	39.0 (32.0/53.0)	41.0 (34.0/54.0)	38.0 (31.0/49.0)	38.0 (31.5/49.5)	0.08 [†]
Marital status					
Married	263 (67.3)	140 (69.3)	68 (63.0)	55 (67.9)	0.52
Not married	128 (32.7)	62 (30.7)	40 (37.0)	26 (32.1)	
Religion					
Yes	286 (73.1)	143 (70.8)	81 (75.0)	62 (76.5)	0.54
No	105 (26.9)	59 (29.2)	27 (25.0)	19 (23.5)	
Professional					
Years since graduation, median (IQR)	13.0 (7.0/26.0)	15.0 (8.0/30.0)	12.0 (6.0/22.0)	11.0 (5.0/23.0)	0.048 [§]
Graduate education					
Yes (MSc and/or PhD)	96 (24.6)	56 (27.7)	23 (21.3)	17 (21.0)	0.32
No	295 (75.4)	146 (72.3)	85 (78.7)	64 (79.0)	
Work, predominantly					
Private	276 (70.6)	148 (73.3)	73 (67.6)	55 (67.9)	0.48
Public	115 (29.4)	54 (26.7)	35 (32.4)	26 (32.1)	
Teaching activities* [‡]					
Yes	223 (57.2)	115 (57.2)	62 (57.4)	46 (56.8)	1.00
No	167 (42.8)	86 (42.8)	46 (42.6)	35 (43.2)	
Clinical					
STAI total scores, mean (\pm SD)	34.5 (7.8)	35.5 (8.4)	33.0 (7.2)	33.9 (6.9)	0.03
PANAS positive, mean (\pm SD)	35.0 (6.0)	33.8 (6.2)	36.6 (5.4)	36.2 (5.5)	< 0.001
PANAS negative, mean (\pm SD)	16.7 (4.8)	17.2 (5.1)	15.9 (4.1)	16.8 (5.0)	0.07
BFI, mean (\pm SD)					
Openness	3.6 (0.6)	3.6 (0.6)	3.7 (0.6)	3.7 (0.6)	0.23
Conscientiousness	3.7 (0.6)	3.6 (0.6)	3.7 (0.6)	3.7 (0.6)	0.68
Extroversion	3.3 (0.8)	3.3 (0.8)	3.4 (0.7)	3.3 (0.7)	0.55
Agreeableness	3.8 (0.5)	3.8 (0.5)	3.9 (0.5)	3.8 (0.5)	0.21
Neuroticism	2.4 (0.7)	2.4 (0.7)	2.3 (0.6)	2.4 (0.7)	0.07
Family history of psychiatric treatment*					
Yes	263 (67.4)	136 (67.7)	73 (67.6)	54 (66.7)	0.99
No	127 (32.6)	65 (32.3)	35 (32.4)	27 (33.3)	

Data presented as n (%), unless otherwise specified.

BFI = Big Five Inventory; IQR = interquartile interval; PANAS = Positive and Negative Affect Schedule; SD = standard deviation; STAI = State-Trait Anxiety Inventory-Trait subscale.

* No information for one participant.

[†] Kruskal-Wallis test.

[‡] Undergraduate or graduate.

[§] Between highest and lowest.

^{||} Between highest and intermediate.

subgroups (schizophrenia and ADHD) were similar regarding the independent variables analyzed (see Table S1, available as online-only supplementary material).

Discussion

In this study, which aimed to identify subgroups based on stigmatizing beliefs related to psychiatric disorders among Brazilian psychiatrists, we found different results for schizophrenia and ADHD. Although most of the psychiatrists in the schizophrenia group were classified in the highest stigma subgroup, most of the psychiatrists in the ADHD group were classified in the lowest stigma subgroup. In addition, those with the highest stigma toward schizophrenia differed from the other subgroups in terms of years since graduation (more time since finishing medical school), trait anxiety (higher scores), and positive affect scores (lower scores). Psychiatrists in the highest

stigma subgroup for schizophrenia and ADHD did not differ in sociodemographic or clinical characteristics.

This study used similar questionnaires to Loch et al.,⁹ with the evaluation restricted to schizophrenia alone. Both studies found three class profiles of stigma, with the largest subgroup being the highest stigma. Yuan et al.³⁵ investigated the role of personality in stigma toward individuals with mental disorders, such as major depressive disorder, obsessive compulsive disorder, alcohol abuse, dementia, and schizophrenia, finding positive associations between social distance and neuroticism, as well as a moderation effect for agreeableness in the relationship between close contact with a mentally ill person and social distance.³⁵ Although we did not find significant personality-based differences between the three schizophrenia subgroups, those in the highest stigma subgroup had higher trait anxiety scores. Kurzban & Leary³⁶ argued that from an evolutionary point of view,

Table 2 Comparison of sociodemographic, professional, and clinical variables between the two groups according to ADHD-related stigma

Variable	Total n=388	Highest stigma n=174 (44.8%)	Lowest stigma n=214 (55.2%)	p-value
Sociodemographics				
Sex				
Female	166 (42.8)	75 (43.1)	91 (42.5)	0.91
Male	222 (57.2)	99 (56.9)	123 (57.5)	
Age, median (IQR)	39.0 (33.0/52.0)	40.0 (34.0/52.0)	38.0 (32.0/52.0)	0.42*
Marital status [†]				
Married	241 (62.3)	114 (65.9)	127 (59.3)	0.19
Not married	146 (37.3)	59 (34.1)	87 (40.7)	
Religion				
Yes	281 (72.4)	130 (74.7)	151 (70.6)	0.36
No	107 (27.6)	44 (25.3)	63 (29.4)	
Professional				
Years since graduation, median (IQR)	13.0 (7.0/25.0)	14.0 (7.0/27.0)	13.0 (6.0/25.0)	0.30*
Graduate education				
Yes (MSc and/or PhD)	83 (21.4)	36 (20.7)	47 (22.0)	0.76
No	305 (78.6)	138 (79.3)	167 (78.0)	
Work, predominantly				
Private	263 (67.8)	118 (67.8)	145 (67.8)	1.00
Public	125 (32.2)	56 (32.2)	69 (32.2)	
Teaching activities ^{§§}				
Yes	203 (52.6)	96 (55.5)	107 (50.2)	0.30
No	183 (47.4)	77 (44.5)	106 (49.8)	
Clinical				
STAI-Trait total scores, median (IQR)	34.0 (29.0/41.0)	34.0 (29.0/40.0)	34.0 (29.0/41.7)	0.72*
PANAS positive, mean (\pm SD)	35.0 (6.5)	34.4 (6.2)	35.4 (6.8)	0.16
PANAS negative, median (IQR)	17.0 (13.7/20.0)	17.0 (14.0/20.0)	17.0 (13.0/20.0)	0.62*
BFI				
Openness, median (IQR)	3.7 (3.2/4.1)	3.7 (3.1/4.2)	3.7 (3.3/4.1)	0.99*
Conscientiousness, mean (\pm SD)	3.7 (0.6)	3.7 (0.6)	3.6 (0.6)	0.24
Extroversion, mean (\pm SD)	3.3 (0.8)	3.2 (0.7)	3.4 (0.8)	0.18
Agreeableness, mean (\pm SD)	3.8 (0.6)	3.7 (0.6)	3.8 (0.6)	0.69
Neuroticism, mean (\pm SD)	2.4 (0.7)	2.5 (0.7)	2.4 (0.7)	0.44
Family history of psychiatric treatment ^{§§}				
Yes	264 (68.4)	117 (68)	147 (68.7)	0.89
No	122 (31.6)	55 (32)	67 (31.3)	

Data presented as n (%), unless otherwise specified.

ADHD = attention-deficit hyperactivity disorder; BFI = Big Five Inventory; IQR = interquartile interval; PANAS = Positive and Negative Affect Schedule; SD = standard deviation; STAI = State-Trait Anxiety Inventory-Trait subscale.

* Mann-Whitney *U* test.

[†] Not information for one participant.

[‡] Undergraduate or graduate.

^{§§} No information for two participants.

Table 3 Latent cluster analysis for questionnaires related to schizophrenia

Classes	AIC	Sample-size adjusted BIC	Entropy	VLMR LR test (p)
2	14783.245	14858.842	0.790	0.1834
3	14439.692	14553.485	0.873	0.0085
4	14321.715	14473.704	0.855	1.0000
5	14265.974	14456.159	0.872	0.9486

AIC = Akaike information criteria; BIC = Bayesian information criteria; VLMR LR = Vuong-Lo-Mendell-Rubinson likelihood ratio.

Table 4 Latent cluster analysis for those questionnaires related to ADHD

Classes	AIC	Sample-size adjusted BIC	Entropy	VLMR LR test (p)
2	16075.565	16164.619	0.859	0.0002
3	15743.360	15877.336	0.874	0.8126
4	15569.274	15748.171	0.886	1.0000
5	15441.946	15665.764	0.903	1.0000

ADHD = attention-deficit hyperactivity disorder; AIC = Akaike information criteria; BIC = Bayesian information criteria; VLMR LR = Vuong-Lo-Mendell-Rubinson likelihood ratio.

human beings cognitively adapt to avoid poor social exchange partners and contact with those who show characteristics suggestive of an illness. Thus, we hypothesized that people who are more prone to perceived threats, such as those with higher trait anxiety,³⁷ may potentialize these cognitive perceptions and display more stigmatizing behaviors. The participants were asked how they normally feel regarding several positive feelings and emotions, such as interest, excitement, and enthusiasm (“positive affect”). Those in the schizophrenia highest stigma subgroup presented significantly lower scores in this dimension, which was similar to the findings of Yuan et al.,³⁵ who found a negative association between openness to experience and all three stigma domains. However, when comparing the five personality characteristics, including openness, we found no differences among the three subgroups. Like Vistorte et al.,⁴ we found an association between years since graduation, which suggest a greater clinical experience, and higher stigma.

Regarding ADHD, most participants were in the lowest stigma subgroup. There were no differences between the subgroups regarding sociodemographic and clinical variables. In a national survey assessing stigmatizing attitudes toward nonpsychotic disorders (depression and anxiety disorders) and schizophrenia/psychosis, Reavley & Jorm³⁸ interviewed more than 6,000 Australians aged 15 or over, finding that individuals with schizophrenia were more likely to be associated with dangerousness and unpredictability.³⁸ Yang et al.³⁹ compared stigma toward nonpsychotic and psychotic mental disorders among college students, finding that the latter elicited more stigma than the former in the stereotype domain.³⁹ Despite different findings for the schizophrenia and ADHD groups, there were no differences between the highest stigma subgroups for each disorder in terms of socio-demographic, clinical, and personality characteristics.

In this study, we investigated subgroups of stigmatizing profiles regarding schizophrenia and ADHD among psychiatrists attending the largest Latin American scientific psychiatry. The results suggest that even among highly educated professionals, stigmatizing beliefs related to mental illness are present and can differ according to psychotic or nonpsychotic diagnosis. Loch et al.³ assessed stigma toward schizophrenia among psychiatrists and in the general population of Brazil to investigate the effect of information about mental illness on stigma dimensions. The authors found that in the general population, more knowledge about schizophrenia was associated with greater stigma in most dimensions, while psychiatrists reported the most negative stereotypes, especially for “weird” and “unpredictable” stereotypes.³

Some interventions have been associated with reduced mental health stigma and discrimination. In a narrative review, Thornicroft et al.⁴⁰ summarized the findings of effective interventions for reducing mental health-related stigma and discrimination. The interventions addressed problems with knowledge, attitudes (prejudice) and behavior (discrimination), approaching stigma as a process with different components, including labeling, stereotyping, prejudice, discrimination, and loss of status.⁴¹ Among the

reviewed intervention strategies, social contact seemed to be most effective for adults. Others included mental health information, psychoeducation, psychotherapy, entertainment, and art interventions. The samples of the reviewed studies involved different populations, such as school and college students, health care staff, military personnel, athletes and teachers, and the general population, as well as distinct disorders, such as schizophrenia and depression.⁴⁰

Among the limitations of this study, collecting data in an academic/scientific setting could have influenced the answers, since the participants might have questioned the confidentiality of the data, despite additional care from the investigators (see Methods). Additionally, being a convenience sample, the participants may not be representative of Brazilian psychiatrists. However, inasmuch as attendance at a scientific meeting suggests a willingness to update and improve knowledge and skills, these results may underestimate the problem of stigma toward mental illness among Brazilian psychiatrists. The distribution of both types of questionnaires (referred to as schizophrenia or ADHD diagnosis) followed no formal random method. However, both samples presented similar sociodemographic characteristics. We were also able to study personality, as well as symptoms and emotional traits (anxiety and positive and negative affect) that could be associated with different subgroups based on stigmatizing profiles, i.e., to determine which characteristics would be related to stigma in individuals with high levels of psychiatry knowledge. Finally, we did not address specific clinical characteristics, such as the severity of psychiatric symptoms, which could have influenced stigma levels.⁴²

These results show that more participants were in the highest stigma subgroup for the psychotic disorder. In addition, personal characteristics, such as those related to trait anxiety and positive affect, may be associated with higher stigma toward schizophrenia among psychiatrists. Interventions to reduce the stigma toward mentally ill people should consider not only clarification of misconceptions about psychiatric disorders, but also that individual characteristics may have a role in stigmatizing beliefs.

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Disclosure

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