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Impact of minority stress in depressive symptoms, suicide ideation and suicide attempt in trans persons

Ítala Raymundo Chinazzo (https://orcid.org/0000-0001-5007-1550) [1]
Maria Inês Rodrigues Lobato (https//orcid.org/0000-0003-3925-4051) [2]
Henrique Caetano Nardi (https://orcid.org/0000-0001-6058-1642) [3]
Silvia Helena Koller (https://orcid.org/0000-0001-9109-6674) [4]
Alexandre Saadeh (https://orcid.org/0000-0002-6591-8838) [5]
Angelo Brandelli Costa (http://orcid.org/0000-0002-0742-8152) [1]

Abstract *Minority stress comprehends the relationship between prejudice (perceived, anticipated and internalized) and mental health in people belonging to minority groups, as well as protective factors for stressors. This study evaluated the prevalence of depressive symptoms, suicidal ideation and attempted suicide in Brazilian trans people, and it`s relationship with minority stress, passability, social support and trans identity support. 378 people participated through a questionnaire answered online and in the hospital services they attended. Of these, 67.20% had depressive symptoms, 67.72% suicidal ideation and 43.12% attempted suicide. Three Poisson regression analyzes were performed in two steps, according to the outcomes. In the three outcomes there was a positive association with internalized prejudice and a negative association with social support, which were the only associations in the suicide attempt. Depressive symptoms and suicidal ideation were also positively associated with anticipated prejudice and negatively passability and support for trans identity. The vulnerability of transgender people to negative mental health outcomes and the importance of addressing prejudice on an individual and social level, as well as promoting social support and transgender identity support are perceived.*

Key words *Prejudice, Trans people, Depressive symptoms, Suicide ideation, Suicide attempts*

[1] Programa de Pós-Graduação em Psicologia, Pontifícia Universidade Católica do Rio Grande do Sul. Av. Ipiranga 6681, Prédio 81, sala 603, Partenon. 90619-900 Porto Alegre RS Brasil. italach@gmail.com
[2] Programa de Pós-Graduação em Psiquiatria e Ciências do Comportamento, Universidade Federal do Rio Grande do Sul. Porto Alegre RS Brasil.
[3] Programa de Pós-Graduação em Psicologia Social, Universidade Federal do Rio Grande do Sul. Porto Alegre RS Brasil.
[4] Programa de Pós-Graduação em Psicologia, Universidade Federal do Rio Grande do Sul. Porto Alegre RS Brasil.
[5] Faculdade de Psicologia, Pontifícia Universidade Católica de São Paulo. São Paulo SP Brasil.

Introduction

According to the World Health Organization (WHO)[1], the global annual prevalence of death due to suicide and attempted suicide is rising and is considered a public health problem. Prevention challenges include the identification of people in risk, understanding the circumstances surrounding suicide, and assessing the effectiveness of interventions[2]. There has also been an increase in the prevalence of depressive disorders globally. The rate of depressive orders in Brazil (5.8%) is higher than the global average (4.4%) and the country has the highest in Latin America[3]. According to the WHO[4], depression results from a complex interaction of social, psychological, and biological factors, where people who have gone through adverse life events are more likely to develop depression.

The prevalence of negative mental health outcomes such as depression, anxiety, substance use disorder, attempted suicide, and suicidal ideation tends to be greater among marginalized groups such as the black population, refugees, immigrants, indigenous peoples, lesbians, gays, and bisexuals, and transgender and intersex people[1,5]. However, there are no official data on mental health problems such as depression, suicidal ideation, attempted suicide and death due to suicide among trans people. For the purpose of this study, trans people are understood to be persons whose gender identity is discordant with their sex assigned at birth, where transgender is an umbrella term for transsexuals, trans people, travestis, and other gender identities. The use of this term also seeks to detach gender identity from psychiatric diagnoses, understanding that gender is self-determined[6].

Prejudice against trans people is an important factor in understanding their experiences of depression and risk of suicide[7]. In addition to general life stressors, the trans population suffers high levels of discrimination, violence, and rejection related to their gender identity and/or expression[8]. The minority stress model is an important tool for understanding the impact of stigma on people from minority groups[9,10]. The model encompasses three dimensions of prejudice: perceived prejudice, anticipated prejudice, and internalized prejudice. Perceived prejudice characterizes explicit stress, an individual's stressor-related experiences caused by prejudice against the condition of belonging to a minority group. Anticipated prejudice is the anticipation of future stressor events, where the stress stems from an expectation of rejection and recrimination and from the state of vigilance and actions taken to hide and protect oneself. The most subjective dimension, internalized prejudice occurs when attitudes and prejudice within the social environment are internalized by the person belonging to the minority group, adversely affecting the ability to cope with stressor events.

The minority stress model posits that social support is a protective factor for mental health that helps people from minority groups deal with stressors and conflicts[9,10]. Evidence suggests that trans people who receive social support from significant relationships have less mental health problems[7,11,12]. The WHO[2] also points out that support from family, friends, and other significant relationships, community involvement, a satisfactory social life, social integration, and access to mental health care services are protective factors against the risk of suicide among both trans people and the general population.

There is a lack of research in Brazil on the mental health of trans people. Brazil has one of the world's highest transgender homicide rates[13], indicating high levels of prejudice and violence against this population group characterized as transphobia, which encompasses a range of negative attitudes, feelings, and actions towards trans people, limiting their right to define their own gender identity and bodily autonomy[14]. The present study therefore sought to determine the prevalence of symptoms of depression, suicidal ideation, and attempted suicide among trans people and explore the influence of predictor variables on these three outcomes, encompassing the three dimensions of minority stress, passability, support for trans identity, and social support.

Method

Study design

This work is part of the research project *Pesquisa Saúde Trans*, a cross-sectional survey of the health needs and barriers to accessing health care among trans people in Brazil based on the Trans PULSE Canadá[15] and aimed at promoting the formulation of evidence-based polices.

Data collection

Data collection procedures followed the guidelines for cross-sectional studies set out in the STROBE Statement (Strengthening the Re-

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porting of Observational Studies in Epidemiology). Data was collected in two university hospitals in Porto Alegre and São Paulo. All trans people visiting the outpatient services between July and October 2014 were approached and invited to participate on a voluntary basis after explaining the survey objectives and how it worked. The tablet-based survey questionnaire was self-administered with groups accompanied by trained researchers in a room provided by the hospital.

Data was also collected via internet using a Facebook ad targeted at users with the following profile characteristics: living in the states of São Paulo or Rio Grande do Sul; aged 18 years and over; and who "like" Facebook pages and participate in groups or events linked to keywords associated with transexuality, travestis, and the LGBT movement. According to Facebook statistics, the ad wash own 521,601 times on the Facebook and obtained 7,226 likes. Users who showed interest in the ad were directed to a site hosting an informed consent form and survey questionnaire. The online data was collected in two periods: July to October 2014 and January to March 2015.

Participants were selected based on the answers to two interrelated questions: self-reported gender identity and sex assigned at birth[16]. The selection criteria were as follows: people who responded sex assigned at birth as male and self-identified as a woman, trans woman, or travesti, categorized as a trans woman; and people who responded sex assigned at birth as female and self-identified as a man or trans man, categorized as a trans man. Those who self-identified as other gender identities were placed in the category other gender identities. The umbrella term "trans people" encompasses all these identities.

Instruments

Symptoms of depression: the Center for Epidemiologic Studies Depression Scale (CES-D), developed by Radloff[17] for adults without any history of mental disorders and validated for use in Brazil[18]. The CES-D consists of 20 items assessing the frequency of symptoms in the past week using a three-point Likert scale: 0 (rarely, less than 1 day) to 3 (almost all the time, between five and seven days). Four items are worded positively and are reversed scored. The cut-off score for presence of symptoms of depression is ≥ 16.

Suicidal ideation and attempted suicide: assessed based on the responses to three yes/no questions: have you ever seriously thought of committing suicide or ending your own life? Have you ever tried to commit suicide or end your own life? Were these occurrences related to the fact that you are trans?

Internalized prejudice: assessed using the Self-Reported Prejudice against Transsexuality Scale, developed by the Trans PULSE[15] and based on an instrument created by Díaz, Ayala, Bein, Jenne, and Marin[19]. The scale has nine items focusing on experience with physical and verbal abuse, perception of discrimination, experience of discrimination, acceptance by peers and family, sexual objectification, and trans fatalism. Each item is scored on a four-point Likert scale ranging from never to always, where a higher score indicates a higher level of prejudice.

Perceived prejudice: assessed using a multiple response question about types of violence experienced: silent aggression, verbal aggression, physical intimidation and threats, physical aggression, sexual aggression, sexual violence, have never been the victim of violence.

Anticipated prejudice: assessed using a multiple response question about the following places/situations that the respondent has avoided for fear of being assaulted or expelled for being trans: public transport; pharmacies; shopping centers or clothes shops; schools or universities; trips to other places; clubs or social groups; gyms; church, temples, *terreiros*, or other religious institutions; public bathrooms; public spaces (for example, parks, streets); restaurants or bars; cultural centers; other; have never avoided a place/situation.

Passability: it refers to a transgender person's ability to be correctly perceived as the gender they identify, was measured using the following question: "How often do the people you meet realize that you are trans without you needing to say so?". The possible responses were: always, often, half the time, rarely, and never. The more often the person is identified as trans, the lower the person's passability.

Support for trans identity: this was measured using a scale developed for the Trans PULSE survey[15] that assesses level of support from 16 possible sources (e.g. father, mother, brother(s), sister(s), and friend(s)) on a four-point scale: does not provide support in any way; does not provide very much support; provides a little support; provides a lot of support; and "not applicable". Sources that were not applicable were not counted in the analysis. The final score is the sum of items according to the number of items answered, where 1 is classified as very little support, 2 and 3 as some support, and 4 as a lot of support.

Social support: assessed using the social support scale[20] adapted for use in Brazil[21]. The scale consists of 19 items dealing with the frequency of availability of five types of social support that the respondent feels he/she can rely on when necessary: material support, emotional support, information, affectionate support, and positive social interaction. In the version validated for use in Brazil three factors are assessed: (1) material support, (2) emotional support + information, and (3) affectionate support + positive social interaction. Material support refers to situations of illness in which in which the person can count on someone's help with daily activities, going to the doctor, and preparing meals. Emotional support + information is having someone who will listen, share private worries and fears, understand problems, and to confide in, and someone who gives good advice, information, and suggestions. Affectionate support+ positive social interaction is having someone who demonstrates affection, love, and hugs you and someone to do fun things with, relax, and help you get your mind of things. The items are answered on a five-point scale ranging from "none of the time" to "all of the time", where the higher the score the higher the level of perceived social support.

Data analysis

Data analysis was performed using the SPSS software package[22]. Initially we analyzed the frequency of sociodemographic variables, the three dimensions of minority stress, and the other predictor variables, followed by two-stage Poisson regression to calculate the prevalence ratios for each outcome of interest (symptoms of depression in the past week and lifetime suicidal ideation and attempted suicide). In the first stage, we included only the dimensions of the minority stress model, subsequently adding the other predictor variables (passability, support for trans identity, and social support). For the purpose of the analysis, anticipated prejudice was categorized dichotomously into "has avoided places/situations" and "has never avoided places/situations". Internalized prejudice, perceived prejudice, support for trans identity, and the three components of social support were categorized into four levels (low, medium, high, and extreme), while passability was divided into three categories, with the responses "always" or "often" and "rarely" or "never", respectively, being grouped together and "half the time" taken as an intermediate level.

Ethical considerations

Pesquisa Saúde Trans was approved by: the Ethics Committee of the Hospital de Clínicas in Porto Alegre; the research commissions of the Hospital de Clínicas in Porto Alegre and Hospital de Clínicas of the Faculty of Medicine at the University of São Paulo; the Research Commission and Ethics Committee of the Institute of Psychology at the Federal University of Rio Grande do Sul; and the Research Commission of the Pontifical Catholic University of Rio Grande do Sul.

Results

The initial sample of 710 trans people was reduced to 378 people after the removal of individuals who did not respond all the questions and/or failed to meet the inclusion criteria, made up as follows: 232 (61.38%) trans women, 114 (30.16%) trans men, and 32 (8.47%) other gender identities. Table 1 shows that the average age of the respondents was 26.82 years (SD = 0.44), the majority of the sample were self-declared white (75.40%), had completed at least secondary education (89.68%), and lived in the State of Rio Grande do Sul (67.99%) and in cities with over 500,000 inhabitants (44.18%).

The data presented show that the prevalence of each outcome of interest was high. The majority of respondents had symptoms of depression in the past week (67.2%) and showed lifetime suicidal ideation (67.72%), while 43.12% had attempted suicide in their lifetime, of whom 80.5% (n = 206) said the attempt was related to the fact that they were trans. It is important to highlight that attempted suicide is not associated with specific intrinsic attributes of trans identities, but rather violations of social and other human rights that seek to prevent trans people from living in discordance with the their gender assigned at birth, promoting physical and psychological violence. With the publication of the ICD-11, the WHO recognized that the suffering experienced by trans people is associated mainly with social stigma and prejudice, regardless of gender identity[23].

Table 2 shows the results of the analysis of the predictor variables. With regard to anticipated prejudice, over half of the respondents (67.50%) had avoided a place/situation for fear of assault or expulsion for being trans. With respect to internalized prejudice and perceived prejudice,

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the most prevalent level was extreme (32.80%) and high (32.28%), respectively. Over half of the respondents (51.85%) showed high passability. With regard to support for trans identity, the most prevalent level was extreme (26.72%), while the most prevalent levels of material support, emotional support+ information, and affectionate support + positive social interaction were medium (28.84%), low (26.98%), and high (28.04%), respectively.

The variables from Table 2 were included in the two-stage Poisson regression performed with the three outcomes of interest. The results of the first regression (presence of symptoms of depression in the past week) are shown in Table 3. In the first stage, the presence of symptoms of depression in the last week was associated with anticipated prejudice and internalized prejudice. These associations were maintained in the second stage, where extreme internalized prejudice was associated with a 41% increase in the presence of symptoms of depression in comparison to low levels and the presence of anticipated prejudice was associated with a 39% increase in the presence of symptoms of depression in relation to the absence of anticipated prejudice. Associations were also found in the second stage with the variables passability (where "always" and "often" being recognized as trans was associated with a

Table 1. Sociodemographic variables.

Variable	n	%
Gender identity		
Trans woman	232	61.38
Trans man	114	30.16
Other	32	8.47
In which state do you live?		
São Paulo	121	32.01
Rio Grande do Sul	257	67.99
Number of inhabitants		
Up to 5,000	6	1.59
5,000 to 10,000	16	4.23
10,000 to 20,000	19	5.03
20,000 to 50,000	36	9.52
50,000 to100,000	35	9.26
100,000 to 500,000	99	26.19
Over 500,000	167	44.18
Race/color/ethnic group		
Black	20	5.29
White	285	75.4
Brown	61	16.14
Indigenous	2	0.53
Yellow	10	2.65
Education		
Up to primary school	5	1.32
Primary school	34	8.99
Secondary school	240	63.49
Degree	75	19.84
Post-graduation	24	6.35

Source: Authors' elaboration.

Table 2. Predictor variables used in the logistic regression.

Variable	n	%
Minority stress		
Anticipated prejudice	255	67.50
Internalized prejudice		
Extreme	124	32.80
High	94	24.87
Medium	57	15.08
Low	103	27.25
Perceived prejudice		
Extreme	59	15.61
High	122	32.28
Medium	83	21.96
Low	114	30.16
Passability		
Always or often (low passability)	112	29.63
Half the time	70	18.52
Rarely or never (high passability)	196	51.85
Support for trans identity		
Extreme	101	26.72
High	88	23.28
Medium	95	25.13
Low	94	24.87
Social support		
Material support		
Extreme	93	24.60
High	82	21.69
Medium	109	28.84
Low	94	24.87
Emotional support + information		
Extreme	93	24.60
High	95	25.13
Medium	88	23.28
Low	102	26.98
Affectionate support + positive social interaction		
Extreme	82	21.69
High	106	28.04
Medium	94	24.87
Low	96	25.40

Source: Authors' elaboration.

29% increase in presence of symptoms of depression), support for trans identity (where an extreme level of support was associated with a 28% reduction in presence of symptoms of depression in comparison to low levels), and affectionate support + positive social interaction (where an extreme level of support was associated with a 43%reduction of presence of depression in relation to low levels).

The same associations were found for suicidal ideation (Table 4). Suicidal ideation increased 20% with the presence of anticipated prejudice in relation to absence, 70% with the presence of extreme levels of internalized prejudice in relation to low levels, and 28% with passability rarely or never in relation to always or often. Suicidal ideation decreased 27% with the presence of an extreme level of support in relation to low levels and 34% with the presence of extreme levels of affectionate support + positive social interaction in comparison to low levels.

The results for attempted suicide are shown in Table 5. In both stages, the only dimension of minority stress that showed an association with this outcome of interest was internalized prejudice. In the second stage, the variables emotional support + information and affectionate support + positive social interaction were also associated with attempted suicide.

Table 3. Two-stage Poisson regression with symptoms of depression.

		Stage 1		Stage 2	
		PR (95% CI)	**p**	**PR (95% CI)**	**p**
Anticipated prejudice	No	-	-	-	-
	Yes	2.90 (1.78; 4.74)	< 0.00*	1.39 (1.15; 1.68)	< 0.00*
Internalized prejudice	Low	-	-	-	-
	Medium	1.32 (0.67; 2.62)	0.42	1.09 (0.81; 1.45)	0.58
	High	2.97 (1.48; 5.97)	< 0.00*	1.35 (1.07; 1.70)	0.01*
	Extreme	3.98 (1.93; 8.21)	< 0.00*	1.41 (1.11; 1.78)	0.01*
Perceived prejudice	Low	-	-	-	-
	Medium	0.85 (0.44; 1.65)	0.62	0.98 (0.79; 1.22)	0.84
	High	0.85 (0.44; 1.64)	0.63	0.95 (0.78; 1.16)	0.62
	Extreme	1.03 (0.40; 2.66)	0.95	0.94 (0.76; 1.18)	0.61
Passability	Always/often			-	-
	Half the time			1.38 (1.15; 1.66)	< 0.00*
	Rarely/never			1.29 (1.10; 1.51)	< 0.00*
Support for trans identity	Low			-	-
	Medium			0.82 (071; 0.94)	0.01*
	High			0.71 (0.58; 0.87)	< 0.00*
	Extreme			0.72 (0.60; 0.87)	< 0.00*
Material support	Low			-	-
	Medium			1.07 (0.88; 1.29)	0.51
	High			1.03 (0.80; 1.34)	0.82
	Extreme			0.89 (0.64; 1.24)	0.50
Emotional support + information	Low			-	-
	Medium			0.88 (0.71; 1.09)	0.25
	High			0.94 (0.70; 1. 26)	0.69
	Extreme			1.19 (0.81; 1.75)	0.37
Affectionate support + positive social interaction	Low			-	-
	Medium			0.83 (0.70; 0.99)	0.04**
	High			0.84 (0.67; 1.04)	0.10
	Extreme			0.57 (0.42; 0.79)	< 0.00*

PR: prevalence ratio; CI: confidence interval; * $p < 0.001$; ** $p < 0.05$.

Source: Authors' elaboration.

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Table 4. Two-stage Poisson regression with suicidal ideation.

		Stage 1		Stage 2	
		PR (95% CI)	P	PR (95% CI)	p
Anticipated prejudice	No	-	-	-	-
	Yes	1.89 (1.13; 1.34)	0.01*	1.20 (1.00; 1.43)	0.05**
Internalized prejudice	Low	-	-	-	-
	Medium	2.85 (1.43; 5.67)	< 0.00*	1.49 (1.13; 1.97)	0.01*
	High	4.43 (2.20; 8.91)	< 0.00*	1.61 (1.24; 2.09)	< 0.00*
	Extreme	6.65 (3.17; 13.95)	< 0.00*	1.70 (1.31; 2.21)	< 0.00*
Perceived prejudice	Low	-	-	-	-
	Medium	0.91 (0.47; 1.76)	0.77	1.01 (0.82; 1.24)	0.96
	High	0.79 (0.40; 1.53)	0.48	0.97 (0.80; 1.18)	0.74
	Extreme	0.73 (0.29; 1.80)	0.49	0.96 (0.77; 1.20)	0.74
Passability	Always/often			-	-
	Half the time			1.32 (1.09; 1.60)	< 0.00*
	Rarely/never			1.28 (1.09; 1.51)	< 0.00*
Support for trans identity	Low			-	-
	Medium			1.02 (0.88; 1.19)	0.77
	High			0.90 (0.75; 1.09)	0.27
	Extreme			0.73 (0.59; 0.91)	0.01*
Material support	Low			-	-
	Medium			0.94 (0.76; 1.16)	0.55
	High			1.00 (0.76; 1.31)	0.98
	Extreme			0.95 (0.69; 1.31)	0.75
Emotional support + information	Low			-	-
	Medium			1.10 (0.87; 1.38)	0.43
	High			1.08 (0.78; 1.48)	0.66
	Extreme			1.29 (0.86; 1.92)	0.22
Affectionate support + positive social interaction	Low			-	-
	Medium			0.72 (0.60; 0.87)	< 0.00*
	High			0.76 (0.62; 0.94)	0.01*
	Extreme			0.66 (0.48; 0.91)	0.01*

PR: prevalence ratio; CI: confidence interval; * $p < 0.001$; ** $p < 0.05$.

Source: Authors' elaboration

Discussion

The prevalence of symptoms of depression in the past week in the study sample (67.20%) was significantly higher than the average rate among the general population in Brazil (5.8%)[4]. This is consistent with the findings of other studies with trans people reporting prevalence rates ranging between 41.1% and 65.3%[11,24-28], thus demonstrating the vulnerability of this group to symptoms of depression[7]. The high prevalence of symptoms of depression is a major public health concern, especially considering that theWHO[4] classifies depression as a leading cause of disability and death by suicide worldwide.

Our findings also show that the prevalence of lifetime suicidal ideation among the sample (67.72%) is significantly higher than the rate in the general population in Brazil and higher than the rates reported by other studies with trans people[11,29-31]. The prevalence of lifetime attempted suicide was 43.12% and 80.50% of those who reported having attempted suicide said that the motive was the fact that they were trans. This rate is also high when compared to the rate in the general population and the findings of other studies with trans people[19,20,25,30,32-35]. These findings also illustrate the vulnerability of this group to mental health problems.

The outcomes of interest were associated with the dimensions of minority stress, demonstrating the applicability of the model to the trans population. This association was particularly notable with internalized prejudice, which

Table 5. Two-stage Poisson regression with attempted suicide.

		Stage 1		Stage 2	
		PR (95% CI)	**p**	**PR (95% CI)**	**p**
Anticipated prejudice	No	-	-	-	-
	Yes	1.28 (0.95; 1.72)	0.11	1.29 (0.96; 1.73)	0.09
Internalized prejudice	Low	-	-	-	-
	Medium	1.76 (1.03; 2.98)	0.04**	1.64 (0.96; 2.79)	0.07
	High	2.64 (1.63; 4.27)	< 0.00*	2.35 (1.45; 3.80)	< 0.00*
	Extreme	2.80 (1.73; 4.53)	< 0.00*	2.50 (1.52; 4.10)	< 0.00*
Perceived prejudice	Low	-	-	-	-
	Medium	1.13 (0.80; 1.58)	0.50	1.19 (0.85; 1.67)	0.31
	High	0.77 (0.54; 1.11)	0.16	0.80 (0.55; 1.15)	0.22
	Extreme	1.11 (0.78; 1.58)	0.56	1.21 (0.83; 1.75)	0.32
Passability	Always/often			-	-
	Half the time			1.34 (0.98; 1.83)	0.07
	Rarely/never			1.19 (0.92; 1.55)	0.19
Support for trans identity	Low			-	-
	Medium			1.06 (0.80; 1.39)	0.69
	High			0.91 (0.66; 1.25)	0.56
	Extreme			0.93 (0.66; 1.31)	0.66
Material support	Low			-	-
	Medium			0.99 (0.71; 1.38)	0.94
	High			0.86 (0.54; 1.36)	0.51
	Extreme			0.61 (0.34; 1.12)	0.11
Emotional support + information	Low			-	-
	Medium			1.20 (0.86; 1.68)	0.28
	High			1.58 (0.95; 2.64)	0.08
	Extreme			2.14 (1.04; 4.39)	0.04**
Affectionate support + positive social interaction	Baixo			-	-
	Low			-	-
	Medium			0.53 (0.37; 0.77)	< 0.00*
	High			0.62 (0.41; 0.94)	0.03**
	Extreme			0.59 (0.32; 1.06)	0.08

PR: prevalence ratio; CI: confidence interval; * $p < 0.001$; ** $p < 0.05$.

Source: Authors' elaboration

showed a significant positive association with all three outcomes. International studies have also found an association between internalized prejudice and symptoms of depression[7,11,27], suicidal ideation[11,12], and attempted suicide[11,34,36]. The internalization of negative feelings regarding transsexual identity may be detrimental to well-being[37] and reduce self-efficacy in coping, contributing to worse health outcomes[38]. This demonstrates the importance of providing affirmative care to trans people[39], who are susceptible to internalizing widespread stigma and prejudice against transgender identity.

Anticipated prejudice was associated with symptoms of depression in the past week and lifetime suicidal ideation. Levels of psychological suffering were greater among trans people who reported fear of being victimized in public than those whose who did not[37]. The stress caused by anticipating prejudice and consequently avoiding exposure can reinforce isolation and reduce the self-esteem required for dealing with adverse situations, leading to a vicious circle of psychological suffering. Trans people with limited access to positive models and support may seek isolation, aggravating the negative effects of stigma on mental health[39]. This highlights the importance of educational actions directed at the broader community and family members to combat the stigma faced by trans people and enhance support[39].

No significant association was found between the outcomes of interest and perceived prejudice.

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According to Meyer[9], stressors that affect minority groups may not be identified by people as being related to minority identity and therefore do not negatively affect mental health. It is the psychological effect of discrimination that harms mental health and not violence itself. Violence may therefore be underappreciated by respondents due the high levels of violence in Brazil.

Respondents who reported being more easily recognized as being trans were 29% more likely to experience symptoms of depression and 28% more likely to have had suicidal thoughts than those were not. This may because trans people who are less passable are more stigmatized than other trans people because it is more obvious that they transgress gender binarism, demonstrating that the violence that negatively affects the mental health of trans people is motivated by transphobia rather than other forms of violence. Considering that the psychological suffering experienced by trans people is largely associated with prejudice and social stigma[2,3], this finding is consistent with the idea that passability and transphobia are devices associated with the sociocultural pressures of cisnormativity, which seek to tailor bodies (trans and cis) and gender expressions to the woman-vagina and man-penis binarism.

As such, for many trans people, passability may represent the idea of protection from transphobia and a supposed gender congruence. A qualitative study in Brazil showed that nine women viewed sex reassignment surgery as a desire for recognition of their lives and existence[40]. In another Brazilian study with trans people and travestis, respondents said they preferred "external" surgery not only because it is less complex, but also due to the social recognition of gender[41]. It is important to stress however that protection for trans people should focus on combating prejudice and stigma, rather than promoting passability.

In this respect, respondents who reported higher levels of support for trans identity from different sources (family, friends) were 28% less likely to experience symptoms of depression and 27% less likely to have had suicidal ideation than those with a low level of support. From a mental health point of view, these findings show the importance of valuing trans identity at an individual and societal level. Higher internalized prejudice and lower passability increase symptoms of depression and suicidal ideation, while social support for trans identity reduces the presence of these outcomes. In a study in Canada[12], support for trans identity was also negatively associated with past-year suicidal ideation. This finding reinforces the guidelines produced by the American Psychological Association[39] recommending family and community support for trans people through trans-affirmative care.

Affectionate support + positive social interaction was negatively associated with the three outcomes, leading to a 43%, 34%, and 38%reduction in symptoms of depression, suicidal ideation, and attempted suicide, respectively, in relation to low level of support. This factor represents the frequency with which a person can count on another to show affection and to do fun things with, constituting an important relationship for positive feelings and experiences, regardless of the source (family, friend, colleagues). The Canadian study referred to above[12]also showed that social support was associated with past-year suicide ideation or attempt. Studies in Italy[11], the United States[17], and Australia[26]have shown an association between family support, support from friends, and general social support, respectively, and a reduction in symptoms of depression. Another study also reported that trans community support is an important factor in creating a feeling of belonging to a community, reducing negative values regarding trans identity[8].

It is interesting to note that emotional support + information was positively associated with lifetime attempted suicide. Emotional support consists of the frequency with which a person has someone who listens, shares private worries and fears, understands problems, and to confide in, while information refers to the presence of someone who gives good advice, information, and suggestions. One explanation for this association is the source of support, whereby the person may well feel support, but the support may not be effective in avoiding attempted suicide. The instrument used in this study does not encompass the source of support. In this respect, trans people should receive emotional support, guidance, and information from appropriately trained mental health professionals, such as psychotherapists, broadening transgender healthcare beyond gender transition.

The findings of the present quantitative study are in line with those of other qualitative studies conducted in Brazil showing the negative impact of prejudice on the lives of trans people, who often suffer violations of their rights and violence motivated by transphobia. Brazilian studies show that the psychological suffering experienced by trans people is mainly associated with discrimi-

nation rather than the non-recognition of existence[40-43].

Limitations

One of the limitations of this study is that we used non-probability sampling restricted to two Brazilian states. Furthermore, the sample is influenced by collection bias since it focuses on trans people seeking hospital services to undergo body procedures and therefore does not represent the multiple trans identities. Another limitation is that the variables did not encompass aspects relevant to the understanding of mental suffering among trans people, such as the presence and intensity of gender dysphoria, gender transition status, presence of mental disorders, coping strategies used in adverse situations, substance abuse, and resilience. The study also failed to explore the relationship between symptoms of depression and suicidal ideation and attempted suicide, since the questions were limited to symptoms of depression in the past week and lifetime suicidal ideation and attempted suicide.

The study also showed limitations in relation to the predictor variables, particularly regarding attempted suicide, indicating that other factors are associated with the outcomes. Generalizations about risk and protective factors should therefore be interpreted with caution. Further research is needed to explore the psychological and psychiatric aspects of each outcome, together with education interventions and social mobilization to raise awareness and promote the formulation and implementation of policies directed at trans people.

Conclusions

The data presented demonstrate that the minority stress model is applicable to the trans population, revealing a significant association between its dimensions and the study outcomes. The findings show that the prevalence of symptoms of depression, suicidal ideation, and attempted suicide is significantly higher among trans people than in the general population and that this group is more likely to experience aggressive situations and higher levels of violence. This illustrates the social vulnerability of trans people in Brazil, who face widespread prejudice and discrimination. The results showed a significant association between the outcomes and the dimensions of minority stress and low passability, adversely affecting mental health, and support for trans identity and social support, as protective factors for mental health. It is important to promote actions at an individual and societal level designed to combat prejudice and societal stigma and ensure the provision of affirmative care to trans people.

It is important to emphasize that trans-related healthcare should extend beyond gender affirmation procedures to include wider issues of mental health. In this respect, public policies directed at trans people are fundamental not only to combat prejudice, but also to ensure support for trans people who experience mental health problems, where trans-affirmative care should be seen as a complement to transgender healthcare rather than the sole goal.

Collaborations

IR Chinazzo worked on data analysis and interpretation and writing. MIR Lobato, in research and methodology. HC Nardi and SH Koller, in design, methodology and critical review. AB Costa, in the design, research, data analysis and interpretation, writing and critical review. A Saadeh woeked in the study design and data collection.

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ERRATUM

p. 5045,

where it reads:
Impact of minority stress in depressive symptoms, suicide idea and try suicide in trans

reads up:
Impact of minority stress in depressive symptoms, suicide ideation and suicide attempt in trans persons