

Healthcare Needs of and Access Barriers for Brazilian Transgender and Gender Diverse People

Angelo Brandelli Costa¹ · Heitor Tome da Rosa Filho¹ · Paola Fagundes Pase¹ · Anna Martha Vaites Fontanari² · Ramiro Figueiredo Catelan³ · Andressa Mueller² · Dhiordan Cardoso² · Bianca Soll² · Karine Schwarz² · Maiko Abel Schneider² · Daniel Augusto Mori Gagliotti⁴ · Alexandre Saadeh⁴ · Maria Inês Rodrigues Lobato² · Henrique Caetano Nardi³ · Silvia Helena Koller⁵

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Abstract Transgender and gender diverse people (TGD) have specific healthcare needs and struggles with access barriers that should be addressed by public health systems. Our study aimed to address this topic in the Brazilian context. A hospital and web-based cross-sectional survey built with input from the medical and transgender communities was developed to assess TGD healthcare needs of and access barriers in two Brazilian states. Although services that assist this population have existed in Brazil since the 1990s, TGD have difficulty accessing these services due to discrimination, lack of information and a policy design that does not meet the needs of TGD. A history of discrimination was associated with a 6.72-fold increase in the frequency of health service avoidance [95% CI (4.5, 10.1)]. This article discusses the urgent necessity for adequate health policies and for the training of professionals regarding the needs of Brazilian TGD.

Keywords Transgender persons · Hormones · Gender affirmation procedures · Brazil · Discrimination

Introduction

Transgender and gender diverse people (TGD) have specific healthcare needs and struggles with access barriers that should be addressed by public health systems [1].

The first Brazilian health policy related to TGD emerged with the governmental response to the AIDS epidemics in the early 1980s. The Brazilian HIV national policy helped organize the contemporary LGBT movement by funding non-governmental organizations and promoting actions through the community [2]. Since 1990, a publicly funded system that provides free healthcare at all levels of attention has been in place in Brazil. Strengthening of the LGBT movement in the previous decades helped push the government response to create specific policies to guarantee integral healthcare in addition to HIV treatment [3]. Consequently, since 1997, gender-affirming processes, including the use of steroids (estrogen and androgen) and some surgical procedures, are available within the Brazilian Unified Health System.

Recently, trans healthcare changed from a model centered on those who wish to “transition” to the “other sex” to one that provides care to any person whose gender differs from the one assigned to them at birth, even if that person does not want to undergo body modification procedures [1, 4]. With this view, TGD healthcare options are not limited to gender affirming surgery but rather to broader and more integral care that views TGD as healthy individuals whose gender expression is limited by social expectations that may lead to psychological suffering. These changes are reflected in the DSM-5, which describes gender dysphoria instead of

✉ Angelo Brandelli Costa
angelo.costa@puers.br

¹ Department of Psychology, Pontifícia Universidade Católica do Rio Grande do Sul, Avenida Ipiranga, 6681, Prédio 11, Sala 933, Porto Alegre, RS, Brazil

² Gender Identity Program (PROTIG), Hospital de Clínicas de Porto Alegre (HCPA), Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil

³ Department of Social Psychology, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil

⁴ Transdisciplinary Gender Identity and Sexual Orientation Service (AMTIGOS-NUFOR), Hospital de Clínicas da Faculdade de Medicina da Universidade de São Paulo (HCFMUSP), Universidade de São Paulo (USP), São Paulo, SP, Brazil

⁵ Department of Psychology, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil

the pathologization of trans identities, and the ICD-11 proposal, which aims to remove this condition from the list of mental disorders [5, 6]. Based on this new model, Brazilian policy has widened in the last decade, providing a framework for integral care at primary and secondary levels of attention. Nevertheless, considering both the implementation of this policy and its ability to respond to the needs of the Brazilian TGD community, it is far from optimal [7].

Studies evaluating the impact of health policies addressed toward TGD in Brazil have reported contradictory results. The first group of studies affirmed that the focus of health policies on HIV contributed to the over medicalization and stigma of trans women; despite this focus, access to HIV prevention and treatment is still limited for trans women, mostly due to the restrictive policy design [8–11]. Studies of HIV prevalence in trans women in various countries, including Brazil, have shown that trans women are one of the groups of people that are the most vulnerable to infection [12–14].

The second group of studies about TGD in Brazil showed that trans-specific healthcare services do not provide integral healthcare and, therefore, do not fulfill the needs of TGD who are not seeking gender affirming surgery [15, 16]. Additionally, other studies have reported that TGD suffer from daily discrimination and their access to healthcare is hindered [17–20]. TGD tend to avoid seeking healthcare because they assume they will be discriminated against, and this is a particularly serious concern considering the difficulty they have with expressing their needs to untrained health professionals [21, 22]. Prejudice against gender and sexual diversity are common in Brazil [23, 24]. Furthermore, health professionals are unprepared to talk about gender and sexuality with their patients, which often results in the belief that everyone is cisgender and heterosexual [25]. Inappropriate attitudes are not rare among health professionals; for example, they may assume that the name or gender provided to them by the patient is incorrect and address the patient using the name assigned at birth and the pronouns associated with the gender assigned at birth even when patients inform them that they do not want to be addressed in that manner [26]. In addition to triggering future avoidance and causing general discomfort to the patient, these attitudes can cause incorrect diagnoses and the implementation of potentially harmful medical treatments.

Recent studies have started to address the broad health needs and barriers to access to healthcare among TGD [27, 28]. However, studies that have been conducted in Brazil so far have focused on specific health problems or on segments of the community. A larger survey is necessary to identify vulnerabilities of TGD and their specific needs in order to improve health policies. Therefore, the objective of this study was to assess the healthcare needs of and access

barriers for TGD in two Brazilian states that offer specific services to this population. Trans-related discrimination in healthcare contexts and its impact on healthcare access were also investigated.

Methods

The “Trans Health Research Project” is a hospital and web-based cross-sectional survey that was built with input from the medical and trans communities to assess the healthcare needs of and access barriers for TGD residents in two Brazilian states. It is an evidence-informed, policy-making initiative of the Universidade Federal do Rio Grande do Sul (UFRGS) in tandem with the Universidade de São Paulo (USP).

Participants

Data were collected from two Brazilian states that pioneered the provision of specialized services for TGD since the Brazilian health policies for TGD were first implemented: Rio Grande do Sul, Brazil southernmost state, and São Paulo a state in the Southeast region. Both states have gender identity programs that provide gender affirming surgery at university hospitals. Since the Brazilian Unified Health System provides georeferenced care, patients seeking gender affirmation must access those procedures in the states in which they live. Patients of the two programs were voluntarily invited to complete an electronic version of the survey. The questionnaire was also available on the Internet through an online Facebook announcement during two time periods: July–October 2014 and January–March 2015.

Assessments and Measures

The survey was modeled after the TransPULSE project [29]. TransPULSE was one of the first large-scale studies that addressed the health needs and vulnerabilities of TGD and their barriers to healthcare access. The project aimed to improve the quality of life of TGD in Ontario, Canada by measuring the level of social exclusion and its impact on physical and mental health. The original TransPULSE survey was built with the input from the medical and TGD communities. For this study, it was adapted to Portuguese for use in the Brazilian population by a group of health practitioners who work in gender and sexuality diversity and was assessed by Brazilian TGD community members. The Brazilian survey is composed of 122 items grouped into 11 categories related to demographic characteristics; physical, sexual and mental health; and experiences of discrimination in healthcare, work and educational contexts.

Gender identity was assessed using the two question method, and persons were considered eligible for participation if they reported a gender different from that assigned to them at birth [30]. The organized Brazilian social movement prefers the use of the terms *travesti*, transsexual and trans person (man or woman) to the anglophone umbrella term transgender [31]. *Travesti* is a culturally specific gender identity term for Brazilians. *Travestis* are trans people who were designated as male at birth but affirm a female gender performance and bodily form, although they typically do not undergo neovaginoplasty. Their gender identity varies: most identify as male, some identify as women, and others simply identify as *travesti* [32]. Based on their self-reported gender identity, participants were re-categorized as trans women, trans men or gender diverse persons. Trans women were those who were designated as male at birth but identified as women, trans women or *travestis*. Trans men were those who were designated as female at birth but identified as men or trans men. Finally, gender diverse persons were those who identified with a gender identity outside the binaries (male–female), such as queer, non-binary, a-gender, etc. Participants also answered about their self-perception on medical gender affirmation status (done, doing, plan to do, not sure, will not do).

Race/skin-color/ethnicity was designated using the Brazilian Institute of Geography and Statistics censuses categories: white, black, yellow (mostly, East Asians), and indigene. One other category, *pardo*, was used, which commonly refers to Brazilians of a mixed-race, typically a mixture of white, Afro- and native Brazilian.

Regarding hormones, participants answered questions about: knowledge; main sources of information; access (free or not); barriers to obtain a prescription; actual usage; for those that never used hormones, reasons why not; main source of acquiring; current usage and monitoring; and, needle sharing. Regarding other medical gender-affirmation procedures, participants answered the following questions: body modification procedures (surgery, silicone implants, TGD-related plastic surgeries); for those who never underwent any of those procedures, why not; for those who already did, where; usage of industrial silicone; needle sharing. Finally, concerning healthcare discrimination, participants answered yes or no to several scenarios after the question: “because you are a TGD, has a healthcare provider ever...”. All the alternatives to this question were modeled by the experiences of TGD community members and professionals that work with them.

Analysis

Central tendency and frequency statistics were calculated for the survey variables analyzed in this article. relationships between outcomes and contextual variables were

calculated using χ^2 tests with the phi (ϕ) coefficient for effect size. Differences were considered significant when the p value was smaller than 0.05, the 95%, confidence interval did not include 0 and the effect size was larger than 0.15.

Results

Seven hundred and one TGD answered the survey, and 626 met the inclusion criteria for this study. The average age of the participants was 26.4 years [95% CI (25.8, 27.1 years); SD 8.5 years; Mdn 24 years], and the age range of the participants was 18–61 years. Additional sociodemographic data are presented in Table 1.

TGD-Related Care

This block of results addresses information related to access and use of hormones (Table 2) and other medical gender-affirmation procedures (Table 3). Of the participants who reported “other” as the main source of information on hormones stands out: “I do not know who to contact to talk about these issues”, “I have no money to buy”, “I will only use with specific professional monitoring”. Of the participants who marked “other” as reason for did not perform medical gender-affirmation procedures, we highlight six responses related to non-coverage of orchiectomy procedure (removal of the testicles) in the Brazilian public health system, and “I don’t know where to start”, “I have no money and I think the process is to bureaucratic”, “lack of help in the Brazilian public health system; the system does not think about trans people” and “I need to open up to people who do not believe me”.

General Healthcare Access and Discrimination

In regard to access to general healthcare, the participants were asked if they felt comfortable discussing their health needs as a TGD with the health professionals to whom they had access ($n=626$). 25.6% ($n=148$) said they feel very uncomfortable, 36.5% ($n=211$) said they feel uncomfortable, 25.8% ($n=149$) said they feel comfortable and 12.1% ($n=70$) said they feel very comfortable. When asked if they had to teach a health professional about their needs as a TGD ($n=626$): 30.3% ($n=188$) answered yes, a lot, 32.4% ($n=188$) answered yes, a little, and 34.7% ($n=217$) answered no.

Data regarding the assumption that discrimination affects healthcare access is presented in Table 4 and includes answers to scenarios of discrimination in the healthcare context presented to the participants.

Table 1 Demographic characteristics

	Trans women (<i>n</i> = 382) N (%)	Trans men (<i>n</i> = 188) N (%)	Gender diverse people (<i>n</i> = 56) N (%)
Age groups			
18–24	177 (46.3)	126 (67.0)	39 (69.6)
25–34	126 (33.0)	41 (21.8)	13 (23.2)
35–44	57 (14.9)	16 (8.5)	2 (3.6)
45–54	17 (4.5)	5 (2.7)	–
55–64	5 (1.3)	–	2 (3.6)
Race/color/ethnicity			
White	268 (70.4)	146 (70.2)	40 (71.4)
<i>Pardo</i>	82 (21.5)	32 (17.8)	5 (8.9)
Black	22 (5.8)	13 (6.9)	6 (10.7)
Yellow	8 (2.1)	5 (2.7)	5 (8.9)
Indigene	1 (0.3)	3 (1.6)	–
Education			
None	8 (2.1)	2 (1.0)	1 (1.8)
Fundamental education	41 (10.7)	26 (13.0)	–
Middle education	238 (62.3)	116 (61.5)	36 (64.3)
Higher education	73 (19.1)	37 (20.7)	15 (26.8)
Postgraduate studies	22 (5.8)	7 (3.8)	4 (7.1)
Population of city of residence			
5000–50,000 inh.	78 (20.3)	49 (26.4)	9 (16.1)
50,000–100,000 inh.	51 (14.1)	14 (8.7)	6 (10.7)
100,000–500,000 inh.	99 (25.7)	54 (28.7)	8 (10.7)
>500,000 inh.	154 (39.9)	71 (37.8)	35 (62.5)
Mode of survey completion			
Web	315 (82.5)	164 (87.2)	56 (100.0)
Hospital	67 (17.5)	24 (12.8)	–
Medical gender affirmation status			
Done	85 (22.3)	7 (3.7)	2 (3.6)
Doing	166 (43.5)	72 (38.3)	11 (19.6)
Plan to do	85 (22.3)	89 (47.3)	15 (26.8)
Not sure	30 (7.9)	10 (5.3)	20 (35.7)
Will not do	16 (4.2)	10 (5.3)	8 (14.3)

When asked if they avoided healthcare when it was needed because they are a TGD, 43.2% (*n* = 249, Total *n* = 577) of participants said yes. The majority (58.7%, *n* = 270) of participants who reported being discriminated against in any situation described in Table 4 avoided seeking care when it was needed compared to 17.8% (*n* = 39) of participants who did not report being discriminated against. Healthcare discrimination experiences significantly affected the frequency of healthcare avoidance [χ^2 (1, 577) = 92.4, $p < .001$, $\phi = 0.4$]. A history of discrimination was associated with a 6.7-fold increase in the frequency of avoidance of health services [95% CI (4.5, 10.1)].

Discussion

Trans healthcare has been regulated in Brazil since the end of the 1990s. Nevertheless, the results of this article confirm that barriers to accessing those services are faced by TGD. Despite the unrestricted coverage, an alarmingly large percentage of participants stated not being informed or being informed mainly by peers of healthcare options for TGD, not being able to find medical professionals who prescribe hormones and using hormones without medical supervision. Trans women are the most vulnerable members of the TGD community to the use of hormones without medical supervision, as they can easily

Table 2 Information, access and use of hormones

	Trans women N (%)	Trans men N (%)	Gender diverse people N (%)
Have enough knowledge?	<i>n</i> = 351	<i>n</i> = 166	<i>n</i> = 51
Yes	133 (37.9)	83 (50.0)	14 (27.5)
No	131 (37.3)	37 (22.3)	17 (22.3)
Not sure	78 (22.2)	43 (25.9)	19 (25.9)
Don't need information about hormones	9 (2.6)	3 (1.8)	1 (2.0)
Main sources of information	<i>n</i> = 340	<i>n</i> = 159	<i>n</i> = 50
Internet	134 (39.4)	87 (54.7)	29 (58.0)
Physician	72 (21.2)	24 (15.1)	3 (6.0)
Other TGD	62 (18.2)	31 (19.5)	8 (16.8)
Friends	31 (9.1)	2 (1.3)	3 (6.0)
Books and medical articles	27 (7.9)	10 (6.3)	4 (8.0)
Others	8 (2.3)	5 (3.1)	3 (6.0)
Relatives	6 (1.8)	–	–
Have free access?	<i>n</i> = 340	<i>n</i> = 159	<i>n</i> = 50
No	234 (68.8)	144 (71.7)	29 (58.0)
Yes	78 (22.9)	18 (11.3)	3 (6.0)
Not sure	28 (8.2)	27 (17.0)	18 (36.0)
Failed to obtain a prescription?	<i>n</i> = 340	<i>n</i> = 159	<i>n</i> = 50
I never tried to obtain a hormone prescription	142 (41.8)	72 (45.3)	37 (74.0)
I've tried and failed	114 (33.5)	52 (32.7)	6 (12.0)
I always succeeded	18 (5.3)	35 (22.0)	7 (14.0)
Ever used hormones?	<i>n</i> = 348	<i>n</i> = 162	<i>n</i> = 50
Yes	292 (83.9)	79 (48.8)	15 (30.0)
If you never used hormones, why?	<i>n</i> = 56	<i>n</i> = 83	<i>n</i> = 35
I'm still deciding whether using hormones is right for me	23 (41.1)	16 (19.3)	21 (60.0)
I can't find a doctor to prescribe me hormones	22 (39.3)	46 (55.4)	6 (17.1)
I don't plan to use hormones	9 (16.1)	6 (7.2)	8 (22.9)
About to begin using hormones	1 (1.8)	11 (13.3)	–
Other	1 (1.8)	4 (4.8)	–
Main source of acquiring ^a	<i>n</i> = 291	<i>n</i> = 208	<i>n</i> = 15
Internet pharmacy	114 (39.2)	12 (15.2)	4 (26.7)
Friends or relatives	79 (27.1)	13 (16.5)	2 (13.3)
Medical specialist	75 (25.8)	42 (53.2)	5 (33.3)
General physician	53 (18.2)	15 (19.0)	4 (26.7)
Pharmacy	46 (15.8)	–	–
On the street or from a stranger	23 (7.9)	14 (17.7)	4 (26.7)
Phytomedicines or supplements	8 (2.7)	7 (8.9)	–
Veterinary supplies	4 (1.4)	2 (2.5)	–
Others	3 (1.0)	1 (1.3)	–
Using now?	<i>n</i> = 290	<i>n</i> = 78	<i>n</i> = 15
Yes, without medical supervision	150 (51.7)	22 (28.8)	3 (20.0)
Yes, with medical supervision	91 (31.4)	48 (61.5)	6 (40.0)
No	49 (16.9)	8 (10.3)	6 (40.0)
Monitoring the effects?	<i>n</i> = 240	<i>n</i> = 70	<i>n</i> = 9
No	105 (43.8)	17 (24.3)	3 (33.3)
Yes, on a regular basis	81 (33.8)	40 (57.1)	4 (44.4)
Yes, but not regularly	51 (21.3)	12 (17.1)	2 (22.2)
I'm not sure	3 (1.3)	1 (1.4)	–

Table 2 (continued)

	Trans women N (%)	Trans men N (%)	Gender diverse people N (%)
Shared needles when using?	<i>n</i> = 345	<i>n</i> = 161	<i>n</i> = 50
No	275 (79.7)	109 (67.7)	24 (52.0)
Never used injectable hormones	59 (17.1)	50 (31.0)	26 (52.0)
Yes	10 (2.9)	1 (0.6)	–
Not sure	1 (0.3)	2 (1.2)	–

^aMultiple answers**Table 3** Medical gender-affirmation procedures

	Trans women N (%)	Trans men N (%)	Gender diverse people N (%)
Underwent any body modification procedures (surgery, silicone implants, TGD-related plastic surgeries, etc.)?	<i>n</i> = 344	<i>n</i> = 161	<i>n</i> = 50
Yes	103 (29.9)	18 (11.2)	–
If not, why? ^a	<i>n</i> = 242	<i>n</i> = 141	<i>n</i> = 50
I have no money to pay for it	167 (69.0)	92 (65.2)	19 (38.0)
I am afraid	33 (13.6)	23 (16.3)	20 (40.0)
I do not want to be treated in a public hospital	26 (10.7)	25 (17.7)	9 (18.0)
I have tried and failed	29 (11.6)	23 (16.32)	4 (8.0)
I do not want to/it does not apply to me	33 (12.4)	8 (5.7)	25 (50.0)
In process	13 (5.4)	18 (12.8)	–
In doubt	1 (0.4)	4 (2.8)	–
Other	13 (5.4)	8 (5.7)	1 (2.0)
If you already did, where? ^a	<i>n</i> = 102	<i>n</i> = 208	–
Private hospital or clinic	78 (76.8)	15 (78.9)	–
Clandestine hospital or clinic	19 (18.6)	–	–
Public hospital or clinic	13 (12.7)	4 (21.1)	–
Another country	9 (8.8)	2 (10.5)	–
Did it myself	3 (2.9)	–	–
Used industrial silicone?	<i>n</i> = 343	–	–
Yes	33 (9.6)	–	–
Shared needles to inject?	<i>n</i> = 32	–	–
Yes	1 (3.1)	–	–

^aMultiple answers

access hormones by taking contraception drugs without a prescription and, therefore, without controlling for their effects (Table 2). Hormonal therapy is part of the established treatment for gender dysphoria because it induces the development of the desired secondary sexual characteristics. TGD receive estrogen and testosterone to induce cross-gender affirmation. In a study of TGD on hormone therapy, 5% of patients suffered from venous thrombosis or pulmonary embolism during the first year of hormonal use or during gender affirming surgery. Moreover, the prevalence of stroke was higher among trans women

than among cisgender men, and the prevalence of type two diabetes was higher among trans women than among transsexual men [33, 34]. Moreover, sharing needles to inject hormones, which was reported by some participants in this study, increases vulnerability to HIV infection, which is already known to burden this population. These data reinforce the urgent need for services for TGD who are considering exclusively using hormone therapy and the provision of information on healthier administration of hormones regardless gender affirming surgery. Although the Brazilian health policy directed toward

Table 4 Discrimination in healthcare context

Because you are a TGD, has a healthcare provider ever... ^a	Trans women (<i>n</i> = 382) N (%)	Trans men (<i>n</i> = 188) N (%)	Gender diverse people (<i>n</i> = 56) N (%)
None of the above	149 (39.1)	65 (34.6)	24 (42.9)
Not used the name you indicated that you wanted to be called	145 (38.0)	86 (45.7)	10 (17.9)
Told you they do not know enough about TGD-related care to provide it	85 (22.2)	59 (31.4)	11 (19.6)
Thought the gender listed on your ID or forms was incorrect	82 (21.5)	44 (23.4)	4 (7.1)
Used hurtful or insulting language about TGD identity or experiences	76 (19.9)	36 (19.1)	12 (21.4)
Discouraged you from exploring your gender	69 (18.1)	42 (20.2)	19 (33.9)
Belittled or ridiculed you for being a TGD	52 (13.6)	33 (17.6)	11 (19.6)
Refused to discuss or address TGD-related health concerns	44 (11.5)	33 (17.6)	7 (12.5)
Refused to see you or ended your care because you were TGD	36 (9.4)	20 (10.6)	5 (8.1)
Told you that you were not really a TGD	28 (7.3)	26 (13.8)	19 (33.9)
Refused to examine parts of your body because you are TGD	27 (7.1)	10 (5.3)	1 (1.8)

^aMultiple answers

TGD was changed in 2013 to include hormonal therapy in secondary level attention services, this research result shows that these guidelines are not yet being fully followed. This finding reinforces the importance of a response by first level attention services, as hormonal therapy is continuous, and its effects must be controlled.

Considering surgical procedures, the observation of life trajectories that contradict the homogeneous view of TGD in this study stands out. There was a subset of TGD who did not plan to use hormones and did not want to undergo surgeries (Tables 1, 2, 3). This subset of TGD has been receiving attention in the literature [28]. However, in the current study, this group reported being more frequently discouraged from exploring their gender and being told that they are not really TGD. This subset of TGD requires acknowledgement by all health services, but especially by mental health professionals who must present patients with gender affirmation options even if they do not wish to undergo gender affirming surgery.

To balance the need to reduce prejudice and the need for TGD to have healthcare access, the idea of gender dysphoria is used as a transitory condition resulting from uncomfortable feelings caused by the lack of agreement of gender identity with primary and secondary sexual characteristics emerged. Thus, the term gender dysphoria refers to a form of suffering that can be healed. In contrast to gender identity disorder, the use of the term gender dysphoria allows health services to offer a specific form of action without imposing a permanent stigma on TGD. However, these two terms have recently been adopted and may not encompass all jargon and clinical practice. Moreover, many courses in the health field in Brazil still teach sexuality and gender in a strictly reproductive view and do not properly address gender and sexual diversity, which could be the root of

the insensitivity toward TGD reported by our participants [23–25].

The use of industrial silicone for breast implants can be considered an indicator of failure to provide access to healthcare for the TGD community, as Brazilian health services provide proper silicone implants. Injection of dimethyl polysiloxane or paraffin oils carries the risk of biological and chemical contamination resulting in ulcers, abscesses and other serious potential consequences, such as pulmonary embolism, granulomatous hepatitis and acute renal failure [35, 36]. Reports by our participants of a lack of money and knowledge, when the system is supposed to offer unrestricted care, reveals the difficulty of accessing healthcare. Another indicator is the fact that the majority of participants underwent body modification procedures at clandestine and private clinics, even though they are offered for free at Brazilian health services. Paying for such services points to the presence of barriers to accessing Brazilian health services; for example, the procedure of orchiectomy is not offered by Brazilian health services, and discrimination by Brazilian health professionals may cause TGD to choose to pay for health services at alternative facilities [37]. This leads us to our last point.

The majority of TGD felt uncomfortable expressing their needs to health professionals. Most TGD had to teach health professionals about their issues, and they reported being victims of discrimination. An important finding of this study is that the main complaint of this study population was their social name being disrespected, even though resolutions at the national and state level are in place that reassure the use of social names. Complaints about their gender identity not being accepted and healthcare being denied represent more serious concerns. As previously discussed, the education of health professionals still does not

combat prejudice views that can impact healthcare. Laws against prejudice toward persons with different gender identities and sexual orientations that allow for administrative punishment exist at the state and municipal level, but this type of prejudice is not a crime under federal law.

The results of this study, which are in line with previous literature about the impact of prejudice on the avoidance of healthcare access, show that past discrimination increases the avoidance of healthcare services when they are needed by TGD by more than sixfold. This avoidance can generate a serious threat in case of emergency care. Recent studies documented the impact of discrimination on health service avoidance by the Brazilian TGD population. A study of *travestis* in south Brazil showed that the participants avoided institutionalized health services and preferred other forms of healthcare [21]. Almost all participants reported going to African American religious places to receive healthcare. They stated preferring such places because they offered care and protection without asking questions about body modifications, sexual orientation, or gender identity. Above all, healthcare avoidance may result in TGD not undergoing or postponing gender-affirming procedures, which are thoroughly documented to improve health outcomes in this population [38].

Conclusions

Despite the existence of official policies regarding healthcare for Brazilian TGD in the two states studied, this research identified barriers to the promotion of protective and inclusive actions and evidence-based policies for TGD.

Based on our results, especially the access barriers and reported discrimination scenarios, we propose some actions. First, it is important to inform TGD of their rights since they can access gender affirmation procedures in both studied states, covered by the Brazilian public health system. Health practitioners should also receive training through education for TGD hormonal and surgical care, and campaigns to promote the uses of social names and the correct pronouns. Actions like this are already in course in Brazil [39]. Additionally, regarding the use of offensive language and the refusal in health care, the dissemination of legal and administrative mechanisms to restrain and prevent discrimination in the health context is essential. Prevent discrimination, as shown by our results, would not only assure the rights and autonomy of TGD but would decrease their healthcare avoidance, improving their health condition in general.

The sample used in this research was not proportional to the states of Brazil; thus, estimates made from these data could be biased. Furthermore, the level of education of the sample is higher than the Brazilian average. It is possible

that TGD with less education may face additional barriers. It is important to note that the worst healthcare access and greatest discrimination may exist for TGD who do not have access to the internet and tertiary care. Secondly, this article did not include participants from states that did not have any specific health services for TGD, and data from such states could reveal differences in health access and discrimination. Finally, self-reports of gender identity may be biased because only persons comfortable revealing their status complete such reports. This may be particularly true for gender diverse individuals.

Despite these limitations, the results indicate that Brazilian health policies for this population need to emphatically guarantee the specific healthcare needs of transgender but especially gender diverse persons. Additionally, constant training of health practitioners is necessary in order to mitigate potential prejudiced attitudes. By incorporating these recommendations, health systems can equip themselves with knowledge about the health needs of TGD and can also ensure that professionals are competent and aware of the relevant and specific health needs of this population to offer humanized care.

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Compliance with Ethical Standards

Conflict of interest HC Nardi, MIR Lobato, A Saadeh, DAM Gagliotti, HT Rosa Filho, ANV Fontanari, A Mueller, D Cardoso, B Soll, K Schwarz, MA Schneider, RF Catelan, PF Pase declare that he/she has no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This study was approved by the institutional review board and Human Ethic Committee of Universidade Federal do Rio Grande do Sul Institute of Psychology and Hospital de Clínicas as well as Instituto de Psiquiatria do Hospital de Clínicas da Faculdade de Medicina da Universidade de São Paulo institutional review board.

Informed Consent Informed consent was obtained from all individual participants included in the study.

References

1. Coleman E, et al. Standards of care for the health of transsexual, transgender, and gender-nonconforming people, version 7. *Int J Transgend.* 2012;13(4):165–232.
2. Berkman A, Garcia J, Muñoz-Laboy M, Paiva V, Parker R. A critical analysis of the Brazilian response to HIV/AIDS: lessons

- learned for controlling and mitigating the epidemic in developing countries. *Am J Public Health*. 2005;95(7):1162–72.
3. Grangeiro A, da Silva L, Teixeira P. Response to AIDS in Brazil: contributions of social movements and the sanitary reform. *Rev Panam Salud Publica*. 2009;26(1):87–94.
 4. Bockting W. Transforming the paradigm of transgender health: a field in transition. *Sex Relation Ther*. 2009;24(2):103–7.
 5. Cohen-Kettenis PT, Pfäfflin F. The DSM diagnostic criteria for gender identity disorder in adolescents and adults. *Arch Sex Behav*. 2010;39(2):499–513.
 6. Drescher J, Cohen-Kettenis P, Winter S. Minding the body: situating gender identity diagnoses in the ICD-11. *Int Rev Psychiatry*. 2012;24(6):568–77.
 7. Mello L. Políticas de saúde para lésbicas, gays, bissexuais, travestis e transexuais no Brasil: em busca de universalidade, integralidade e equidade [Health policies for lesbians, gays, bisexuals, transsexuals and travestis in Brazil: the pursuit of universality, integrality and equity]. *Sex Salud Soc*. 2011;9:7–28.
 8. Carvalho M. A (im)possível pureza: medicalização e militância na experiência de travestis e transexuais [The (im)possible purity: medicalization and activism in travesti and transsexual experience]. *Sex Salud Soc*. 2011;8:36–62.
 9. Pelúcio L, Miskolci R. A prevenção do desvio: o dispositivo da aids e a repatologização das sexualidades dissidentes [The prevention of deviance: the aids apparatus and the repatologization of dissent sexualities]. *Sex Salud Soc*. 2009;1:125–57.
 10. Peres W. Violência estrutural e AIDS na comunidade travesti brasileira [Structural violence and AIDS in Brazilian transvestite community]. *Rev Psi UNESP*. 2008;3:21–31.
 11. Silva S, Barboza R. Exclusão social e consciência política: luta e militância de transgêneros no ENTLAIDS [Social exclusion and political awareness: transgender activism and fights in National Meeting of Transvestites and Transsexuals who Fight and Prevent AIDS]. *Cadernos CERU*. 2009;20(1):257–76.
 12. Baral S, et al. Worldwide burden of HIV in transgender women: a systematic review and meta-analysis. *Lancet Infect Dis*. 2013;13(3):214–22.
 13. Costa A, Fontanari A, Jacinto M, et al. Population-based HIV prevalence and associated factors in male-to-female transsexuals from southern Brazil. *Arch Sex Behav*. 2014;44(2):521–4.
 14. Poteat T, et al. HIV risk and preventive interventions in transgender women sex workers. *Lancet*. 2015;385(9964):274–86.
 15. Arán M, Murta D, Lionço T. Transexualidade e saúde pública no Brasil. [Transsexuality and public health in Brazil]. *Cien Saude Colet*. 2009;14(4):1141–9.
 16. Muller M, Knauth D. Desigualdades no SUS: o caso do atendimento às travestis é ‘babado’! [Inequalities in the Brazilian Unified Health System: the case of care for transvestites is ‘babado’!]. *Cad EBAPEBR*. 2008;6(2):1–14.
 17. Martins T, et al. Travestis, an unexplored population at risk of HIV in a large metropolis of northeast Brazil: a respondent-driven sampling survey. *AIDS Care*. 2013;25(5):606–12.
 18. Sousa P, Ferreira L, Sá J. Estudo descritivo da homofobia e vulnerabilidade ao HIV/Aids das travestis da Região Metropolitana do Recife, Brasil [Descriptive study of homophobia and vulnerability to HIV/Aids of the transvestites in the Metropolitan Region of Recife, Brazil]. *Cien Saude Colet*. 2013;18(8):2239–51.
 19. Rocha K, Barbosa L, Barboza Z, et al. Attitudes and perceptions of the Brazilian public health system by transgender individuals. *Forum Qual Soc Res*. 2009;10(2):1–21.
 20. Souza M, et al. Itinerários terapêuticos de travestis da região central do Rio Grande do Sul, Brasil [Therapeutic itineraries of transvestites from the central region of the state of Rio Grande do Sul, Brazil]. *Cien Saude Colet*. 2014;19(7):2277–86.
 21. Socías M, et al. Factors Associated with healthcare avoidance among transgender women in Argentina. *Inter J Equity Health*. 2014;13(1):81.
 22. Bauer G, et al. Reported emergency department avoidance, use, and experiences of transgender persons in Ontario, Canada: results from a respondent-driven sampling survey. *Ann Emerg Med*. 2014;63(6):713–20.
 23. Costa A, et al. Homophobia or sexism? A systematic review of prejudice against nonheterosexual orientation in Brazil. *Int J Psychol*. 2013;48(5):900–9.
 24. Costa A, et al. Prejudice toward gender and sexual diversity in a Brazilian Public University: prevalence, awareness, and the effects of education. *Sex Res Soc Policy*. 2015;12(4):261–72.
 25. Rufino A, Madeiro A, Girão M. Sexuality education in Brazilian Medical Schools. *J Sex Med*. 2014;11(5):1110–7.
 26. Cerqueira-Santos E, et al. Percepção de Usuários Gays, Lésbicas, Bissexuais e Transgêneros, Transexuais e Travestis do Sistema Único de Saúde [Gays, lesbians, bisexuals, transgenders perception’s of the Brazilian Unified Health System]. *Interam J Psychol*. 2010;44(2):235–45.
 27. Bradford J, et al. Experiences of transgender-related discrimination and implications for health: results from the virginia transgender health initiative study. *Am J Public Health*. 2013;103(10):1820–9.
 28. Giami A, Beaubatie E. Gender identification and sex reassignment surgery in the trans population: a survey study in France. *Arch Sex Behav*. 2014;43(8):1491–501.
 29. TransPULSE: provincial survey. 2012. <http://transpulseproject.ca/wp-content/uploads/2012/05/Trans-PULSE-survey-information-only-copy-2012.pdf>. Accessed 27 Nov 2015.
 30. Reisner S, et al. Monitoring the health of transgender and other gender minority populations: validity of natal sex and gender identity survey items in a U.S. national cohort of young adults. *BMC Public Health*. 2014;14(1):1224.
 31. Carvalho M, Carrara S. Em direito a um futuro trans?: contribuição para a história do movimento de travestis e transexuais no Brasil [Towards a Trans future? Contributions to a history of the travesti and transsexual movement in Brazil]. *Sex Salud Soc*. 2013;14:319–51.
 32. Barbosa C. “Doidas e putas”: usos das categorias travesti e transexual [“Freaks and whores”: uses of travesti and transsexual categories]. *Sex Salud Soc*. 2013;14(2):352–79.
 33. Wierckx K, et al. Long-term evaluation of cross-sex hormone treatment in transsexual persons. *J Sex Med*. 2012;9(10):2641–51.
 34. Wierckx K, et al. Prevalence of cardiovascular disease and cancer during cross-sex hormone therapy in a large cohort of trans persons: a case-control study. *Eur J Endocrinol*. 2013;169(4):471–8.
 35. Ellenbogen R. Injectable fluid silicone therapy. Human morbidity and mortality. *J Am Med Inform Assoc*. 1975;234(3):308–9.
 36. Mepham N, et al. People with gender dysphoria who self-prescribe cross-sex hormones: prevalence, sources, and side effects knowledge. *J Sex Med*. 2014;11(12):2995–3001.
 37. Guaranha C. O Desafio da Equidade e da Integralidade: Travestilidades e Transexualidades no Sistema Único de Saúde [The challenge of equity and integrality: travestilities and transsexualities in Brazilian Unified Health System] [dissertation]. Porto Alegre: Universidade Federal do Rio Grande do Sul; 2014.
 38. Murad M, et al. Hormonal therapy and sex reassignment: a systematic review and meta-analysis of quality of life and psychosocial outcomes. *Clin Endocrinol (Oxf)*. 2010;72(2):214–31.
 39. Costa A, et al. Effectiveness of a multidimensional web-based intervention program to change Brazilian health practitioners’ attitudes toward the lesbian, gay, bisexual and transgender population. *J Health Psychol*. 2016;21(3):356–68.