






Sara Gomes PRATES¹ , Romulo Dias JESUÍNO² , Luiz Renato PARANHOS² ,
Álex Moreira HERVAL² , Liliane Parreira Tannús GONTIJO² 

¹ Private Practice, Itumbiara, Goiás, Brazil.

² Department of Social and Preventive Dentistry, Federal University of Uberlândia, Uberlândia, Minas Gerais, Brazil.

Corresponding author:

Álex Moreira Herval

Email: alexmherval@ufu.br

How to cite: PRATES, S.G., et al. Oral health self-perception for transgender people: a controlled cross-sectional study. *Bioscience Journal*. 2021, **37**, e37003. <https://doi.org/10.14393/BJ-v37n0a2021-55794>

Abstract

This article aims to verify the use of dental services, oral health self-perception, and the impacts of oral health on the daily lives of transgender people. A controlled cross-sectional study was conducted in which transvestites, transsexuals, and transgender people were compared to cisgender people. For data collection, the oral health self-perception questionnaire was applied to 90 people, from which 45 were cisgender and 45 were transgender. There were no differences regarding access to dental services. The data analysis revealed that transgender people perceive their teeth to cause nervousness ($p=0.002$) and shame ($p=0.033$), respectively 3.8 and 5.0 times higher than that observed for cisgender people. Although differences in access were not observed, there was a difference in the perception of the need for treatment and the impacts of oral health. Therefore, it is important to consider that comprehensive care for the transgender population should go beyond the treatment of oral diseases and include aesthetic expectations as well.

Keywords: Self-perception. Transgender People. Transvestism.

1. Introduction

Studies about the access of Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex people (LGBTQI+) to health services are currently expanding, seeking to understand the role and impacts of the history of stigma, fear, and discrimination these people have experienced in health services (Johnson et al. 2008; Radix et al. 2014). The LGBTQI acronym combines a great diversity of expressions of gender, affectivity, and sexuality (Johnson et al. 2008; Russell and More 2016; Silva and Rios 2020).

While sex can be defined genetically and anatomically, gender is the result of a psychological, social, and cultural construction, which results in the determination of man, woman, both, or neither. When there is an agreement between biological sex and gender identity, the person is denominated cisgender (Johnson et al. 2008; Russell and More 2016). However, when there is no consistency between sex at birth and gender identity or expression, the person is denominated transgender (Johnson et al. 2008). The transgender definition includes transsexuals (people who dress according to a different gender from the one designated at birth), intersex (people who identify simultaneously as men and women), drag-queens or drag-kings (people who dress as a different gender and stereotype), and people who use gender characteristics that differ from those culturally defined for their sex for fun, eroticism, or other personal interests (Johnson et al. 2008; Silva et al. 2015; Russell and More 2016; Dias 2020). The terminology regarding these people relates

to culture and it progresses rapidly. It is important to use respectful language in different places and times and among different people (Coleman et al. 2011).

Transgender people have lived in the context of social inequality, with high rates of unemployment, discrimination in the workplace, physical abuse (Hughto et al. 2015; Russell and More 2016), depression, drug use, exposure to risk factors for health, and social stigma (Macdonald et al. 2019). In this diverse and stigmatized group, transgender and transsexual people present great difficulties to access basic health services (Johnson et al. 2008; Radix et al 2014; Russell and More 2016) as well as services specialized in promoting adaptations from the body to gender expressions (Mello et al. 2011). Therefore, there is a demand for new care practices for this population, developing better practices and supporting policies that promote health, research, education, respect, dignity, and equal rights for trans people and people with gender variability in all cultural aspects (WPATH - World Professional Association for Transgender Health 2012).

Information on the access to health services for transgender people is still limited and restricted to small studies (Russell and More 2016). Understanding the distinction of experiences and stigma of transgender people, this study aimed to verify the differences in the use of dental services, oral health self-perception, and the impact of oral health conditions on the daily life, when compared to cisgender people.

2. Material and Methods

Study design and ethical criteria

A controlled cross-sectional study was developed with transvestites, transsexuals, and transgender people (transgender group) paired with people referred to as cisgender (control group or cisgender group) to verify the differences between groups regarding the use of dental services, oral health self-perception, and the impact of oral health conditions on the daily life. The “Strengthening the Reporting of Observational Studies in Epidemiology” (STROBE) checklist (Malta et al. 2010) was used to aid the research and reporting the results obtained. All national (National Health Council) and international (Declaration of Helsinki) ethical practices related to research involving human beings were respected. An Independent Human Research Ethics Committee approved the project (CAAE: 52595615.4.0000.5152).

Study context

The study was developed in Uberlândia (Minas Gerais, Brazil). We worked with a local social organization that promotes actions for LGBTQI+ to identify places commonly attended by transgender people. The main researcher went to the place informed and met the people of interest (transgender group). The interviews were conducted from March to May 2017. The control group was composed of LGBTQI+ identified as cisgender. These people were found in a college near the place commonly attended by the trans group.

Study participants

The study participants were selected by convenience. Participants of the transgender group were selected considering the population found in the places indicated by the social organization. The transgender group included people who claimed to be transvestites, transsexuals, and transgender, over the age of 18, and who agreed to participate in the survey through a free and informed consent. There was no difference regarding hormonal therapy or sex reassignment surgery, respecting the self-affirmation of gender identity and considering that dissatisfaction with sex at birth is a sufficient criterion to be considered transgender. There was no restriction regarding transgender men or women. The transgender group excluded people under 18 years old, identified as ciscenders, intersex, or drag queen (even if self-identified as gay or lesbian), and people who did not sign the free and informed consent form and did not live or attend the study area.

The control group included LGBTQI+ cisgender people who study or work at the local college, near the places the social organization indicated to find transgender people. The inclusion criteria to the control group considered people self-identified as gay or lesbian, cisgender, over the age of 18 years, who agreed to participate in the research. The control group excluded people under 18 years old, identified as heterosexual or transgender, and people who did not sign the free and informed consent form and did not live or attend the study area. A 1:1 ratio was maintained for the control group formed by cisgender people.

Measuring instruments

Two questionnaires were used for data collection. The first one verified the use of dental services (frequency and type of service), self-perception (satisfaction with oral health and perceived need for treatment), and the impact of oral health conditions on the daily life, as used by the National Survey of Oral Health (Brazil, 2012). The second one was a questionnaire for sociodemographic identification (age, self-reported ethnicity, education, and income).

Data analysis

The data collected were tabulated and analyzed using the “Statistical Package for the Social Sciences” software (SPSS), v.21. Initially, descriptive analysis was performed. Subsequently, categorical dichotomous data were analyzed using Fisher's Exact Test, while non-dichotomous categorical data were analyzed using Linear Association. All tests were applied using a 5% significance level.

3. Results

Ninety LGBTQI+ people participated in the study, 45 of which identified as transgender and the other 45 as cisgender. Participants concentrated mainly in the age group of 20 to 29 years ($n = 70$; 77.8%), self-reported black ethnicity ($n = 50$; 55.6%), and income between 501.00 (BRL) and 1500.00 (BRL) ($n = 35$; 38.5%). Table 1 shows the characterization of the people participating in the study, as well as the distribution of frequencies between the groups studied (transgender and cisgender). The statistical analysis of sociodemographic and economic variables showed that the groups studied did not differ statistically in terms of age, self-reported ethnicity, and family income ($p > 0.05$).

Table 1. Characterization and verification of similarities between the transgender and cisgender groups regarding sociodemographic aspects.

Sociodemographic aspects	Total		Transgender		Cisgender		p-value
	N	%	N	%	N	%	
<i>Age Range</i>							
18 to 19 years	7	7.8	5	11.1	2	4.400	0.294
20 to 29 years	70	77.8	30	66.7	40	88.90	
30 to 34 years	12	13.3	9	20.0	3	6.70	
35 to 44 years	1	1.1	1	2.2	0	0.00	
<i>Level of Education</i>							
Incomplete elementary school	14	15.6	6	13.3	8	17.8	0.012
Incomplete elementary school	14	15.6	9	20.0	5	11.1	
Incomplete high school	8	8.9	8	17.8	0	0.0	
Incomplete high school	20	22.2	17	37.8	3	6.7	
Incomplete higher education	22	24.4	2	4.4	20	44.4	
Complete higher education	12	13.3	3	6.7	9	20.0	
<i>Ethnicity</i>							
White	26	28.9	13	28.9	13	28.9	0.525
Black	9	10.0	3	6.7	6	13.3	
Brown	50	55.6	25	55.6	25	55.6	
Yellow	4	4.4	3	6.7	1	2.2	
Indigenous	1	1.1	1	2.2	0	0.0	
<i>Income</i>							
251 to 500	1	1.1	0	0.0	1	2.2	0.542
501 to 1.500	35	38.9	22	48.9	13	28.9	
1.501 to 2.500	20	22.2	11	24.4	9	20.0	
2.501 to 4.500	23	25.6	7	15.6	16	35.6	
4.501 to 9.500	7	7.8	1	2.2	6	13.3	
More than 9.500	1	1.1	1	2.2	0	0.0	
Did not answer	3	3.3	3	6.7	0	0.0	

N = absolute frequency; % = relative frequency; $p < 0.05$.

Table 2 shows the distribution of the people studied regarding the use of dental services and self-perception on the need for oral health care. Regarding the use of dental services, there was no statistically significant difference. However, when analyzing self-perception on the need for dental care, transgender people are less satisfied with their oral health ($p < 0.001$) and believe they currently need more dental treatment ($p = 0.026$).

Table 2. Use of dental services and self-perceived need for oral health care between the transgender and cisgender groups.

Variables	Transgender		Cisgender		p-value
	N	%	N	%	
<i>Use of dental services at least once in a lifetime</i>					
Yes	43	95.6	44	97.8	0.557
No	2	4.4	1	2.2	
<i>When was your last dentist appointment?</i>					
Never went to the dentist	2	4.4	1	2.2	0.323
Less than a year	17	37.8	27	60.0	
From one to two years	15	33.3	12	26.7	
Three or more years	11	24.4	4	8.9	
<i>What kind of dental service did you use the last time?</i>					
Never went to the dentist	2	4.4	1	2.2	0.071
Public service	12	26.7	12	26.7	
Liberal private service	25	55.6	23	51.5	
Complementary private service	6	13.3	9	20.0	
<i>Satisfaction with teeth and mouth</i>					
Very unsatisfied	8	17.8	0	0.0	<0.001*
Dissatisfied	13	28.9	6	13.3	
Neither satisfied nor dissatisfied	10	22.2	5	11.1	
Satisfied	11	24.4	25	55.6	
Very satisfied	3	6.7	9	20.0	
<i>Self-perception of need for dental treatment</i>					
Yes	35	77.8	24	53.5	0.026*
No	10	22.2	21	46.7	
<i>Self-perception of need for dental prosthesis</i>					
Yes	6	13.3	1	2.2	0.110
No	39	86.7	44	97.8	

N = absolute frequency; % = relative frequency; $p < 0.05$.

The analysis of the impacts of oral health on the daily life, presented in Table 3, revealed that transgender people believed their teeth caused nervousness (3.8 times more; $p = 0.002$) and shame (5.0 times more; $p = 0.033$) when compared with cisgender people.

Table 3. Analysis of the impacts of oral health on the daily life between transgender and cisgender groups.

Variables	Transgender		Cisgender		p-value	Prevalence Ratio (CI)
	N	%	N	%		
Impact on eating	20	44.4	16	35.6	0.519	1.250 (0.750-2.084)
Discomfort when brushing	17	37.8	8	17.8	0.059	2.125 (1.022-4.417)
Nervousness over teeth	19	14.2	5	11.1	0.002	3.800 (1.554-9.293)
Impact on leisure	9	20.0	4	8.9	0.230	2.250 (0.747-6.779)
Impact on sports practice	4	8.9	1	2.2	0.361	4.000 (0.465-34.408)
Speaking difficulty	7	15.6	4	8.9	0.522	1.750 (0.550-5.565)
Teeth cause shame	15	33.3	3	6.7	0.003	5.00 (1.554-16.089)
Teeth hinder studies	6	13.3	3	6.7	0.295	2.00 (0.533-7.508)
Impact on sleep	16	35.6	7	15.6	0.052	2.286 (1.041-5.017)

N = absolute frequency; % = relative frequency; $p < 0.05$; CI = confidence interval.

4. Discussion

When comparing self-reported aspects of oral health between trans and cisgender people, this study identified that access to dental services did not differ statistically between the groups studied. However, transgender people are less satisfied with their oral health, believe to have a higher need for dental treatment, and their oral health condition causes more tension and shame than cisgender people.

Although this study did not identify differences in the access to dental services, this is not the reality observed by other researchers who studied populations of transgender people (Samuel et al. 2018; Muralidharan et al. 2018). The study by Samuel et al. (2018) with Indian transgenders identified low access to dental services, which was related to a refusal by dental surgeons to provide care. Muralidharan et al. (2018), when investigating men who have sex with other men and transgender people, also observed low access to health services, which was related to fear, lack of awareness, or financial restrictions. Similar access to dental care between the groups studied could be justified by the fact that both groups identify as LGBTQI+, but it is known that transgender people suffer more prejudice and discrimination than cisgender people. It is important to highlight that the difficult access to health care by transgender people is not restricted to dental offices, but it has also been observed for other health professionals and services (Johnson et al. 2008; Radix et al. 2014; Russell and More 2016).

As in the present study, Samuel et al. (2018) also noted that transgender people reported not being satisfied with the quality of their oral health. Moreover, studies without gender distinction (or gender diversity) (Esmeriz et al. 2012; Freire et al. 2012; Moura et al. 2014; Milagres et al. 2018) showed that the prevalence of people satisfied with oral health is higher than dissatisfied ones, which just occurred in the control group. Thus, it is noticeable that transgender people are less satisfied with their oral health.

The frequency of transgender people who reported needing dental treatment was higher than the study by Moura et al. (2014), who investigated Brazilian adults, and similar to the study by Freire et al. (2012), who investigated Brazilian adolescents. The similarity of our results to the study by Freire et al. (2012), in hypothesis, could be explained by the process of changing the body and building a common identity for adolescents and transgender people (Macdonald et al. 2019).

The self-reported need for dental treatment is complex and multidetermined and may be affected by the existence of oral diseases and socioeconomic variables (Moreira et al. 2009; Moura et al. 2014; Samuel et al. 2018). Reinforcing this statement, the studies by Samuel et al. (2018) and Muralidharan et al. (2018) observed that transgender people have high rates of oral diseases, which could help to understand the higher self-reported need for dental treatment identified in the present study. However, the data on oral diseases were not collected in the groups studied to confirm this relationship.

The oral health impacts reported by transgender people showed statistically significant differences from the control group regarding nervousness and shame. In this sense, Muralidharan et al. (2018) pointed out that the quality of oral health for men who have sex with other men and transgender people is mainly affected by causing tension (psychological discomfort) and lower life satisfaction. Transgender people have shown low or moderate levels of self-esteem, which is the result of the process of discrimination and rejection they suffer (Akhtar and Bilour 2019; Alberse et al. 2019).

Considering that people who do not fit the social expectations about the female figure are rejected and discriminated, the search for the adequacy of the female body by transvestites and transsexuals begins very early, in childhood or adolescence, so they can see in themselves what they accept as beautiful (Silva et al. 2015). During the process of building their transgender identity, that is, the 'fabrication' of a body to make it visible and aesthetically attractive, transvestites and transsexuals use various norms and rules of society as guides for shaping their own identity, to standardize it within what is seen as feminine by the society in which they are inserted (Longaray and Ribeiro 2016).

As the main limitation of this study, the sampling process (sample size and selection) can be indicated. This has been a common limitation in studies with transgender people (Freire et al. 2012) because they represent a diverse, closed, and difficult-to-locate group (Freire et al. 2012; Radix et al. 2014). Another limitation is the low ability to make an external inference with the results of the study. It should be considered, however, that even low-coverage observational studies are relevant to this population, which presents little statistical data and a literature that is still restricted.

5. Conclusions

The population of transgender people studied did not show significant differences regarding the access to dental services, differing from scientific data from other countries. Despite this result, the lower satisfaction with oral health, the greater perception of the need for dental treatment, and the tension and shame caused by their teeth came close to other studies with transgender populations. As an implication for the clinical practice, it is important to consider that offering only a curative dental treatment may be insufficient to improve oral health perception and satisfaction.

Authors' Contributions: PRATES, S.G.: conception and design, acquisition of data, drafting the manuscript, and final approval; JESUÍNO, R.D.: conception and design, interpretation of data, drafting the manuscript, and final approval; PARANHOS, L.R.: analysis and interpretation of data, drafting the manuscript, and final approval; HERVAL, A.M.: conception and design, analysis and interpretation of data, drafting the manuscript, and final approval; GONTIJO, L.P.T.: conception and design, acquisition of data, interpretation of data, drafting the manuscript, final approval.

Conflicts of Interest: The authors declare no conflicts of interest.

Ethics Approval: Approved by Human Research Ethics Committee of Federal University of Uberlândia. CAAE: 52595615.4.0000.5152.

Acknowledgments: This study was financed in part by CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil) - Finance Code 001. We are also thankful for the support of CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico - Brasil), Finance Code 307808/2018-1.

References

- AKHTAR, M. and BILOUR, N. State of mental health among transgender individuals in Pakistan: psychological resilience and self-esteem. *Community Mental Health Journal*. 2020, **56**, 626-634. <https://doi.org/10.1007/s10597-019-00522-5>
- ALBERSE, A.M.E., et al. Self-perception of transgender clinic referred gender diverse children and adolescents. *Clinical Child Psychology and Psychiatry*. 2019, **24**(2), 388-401. <https://doi.org/10.1177/1359104518825279>
- BRASIL. *SB Brasil 2010: Pesquisa nacional de saúde bucal: Resultados principais*. Brasília: Ministério da Saúde, 2012. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/pesquisa_nacional_saude_bucal.pdf
- DIAS, A.F. Trans* escrituras as a pedagogical power. *Journal of Research and Knowledge Spreading*. 2020, **1**(1), e11494. <https://doi.org/10.20952/jrks1111494>
- ESMERIZ, C.E., MENEGHIM, M.C. and AMBROSANO, G.M. Self-perception of oral health in non-institutionalised elderly of Piracicaba city, Brazil. *Gerodontology*. 2012, **29**(2), e281-e289. <https://doi.org/10.1111/j.1741-2358.2011.00464.x>
- FREIRE, M.D.C.M., et al. Condição de saúde bucal, comportamentos, auto percepção e impactos associados em estudantes universitários moradores de residências estudantis. *Revista Odontologia da UNESP*. 2012, **41**(3), 185-191.
- HUGHTO, J.M.W., REISNER, S.L. and PACHANKIS, J.E. Transgender stigma and health: A critical review of stigma determinants, mechanisms, and interventions. *Social Science & Medicine*. 2015, **147**, 222-231. <https://doi.org/10.1016/j.socscimed.2015.11.010>
- JOHNSON, C.V., MIMIAGA, M.J. and BRADFORD, J. Health care issues among lesbian, gay, bisexual, transgender and intersex (LGBTI) populations in the United States: Introduction. *Journal of Homosexuality*. 2008, **54**(3), 213-224. <https://doi.org/10.1080/00918360801982025>
- LONGARAY, D.A. and RIBEIRO, P.R.C. Travestis e transexuais: corpos (trans) formados e produção da feminilidade. *Revista Estudos Feministas*. 2016, **24**(3), 761-784. <https://doi.org/10.1590/%25xXXXXXXX>
- MACDONALD, D.W., et al. Oral Sex Knowledge and Experience of Transgender Youth: An Opportunity for Dental Education. *Journal of Dental Education*. 2020, **84**(4), 473-477. <https://doi.org/10.21815/JDE.019.193>
- MALTA, M., et al. Iniciativa STROBE: subsídios para a comunicação de estudos observacionais. *Revista de Saúde Pública*. 2010, **44**(3), 559-565. <https://doi.org/10.1590/S0034-89102010000300021>
- MELLO, L., et al. Políticas de saúde para lésbicas, gays, bissexuais, travestis e transexuais no Brasil: em busca de universalidade, integralidade e equidade. *Sexualidad, Salud y Sociedad*. 2011, (9), 7-28. <https://doi.org/10.1590/S1984-64872011000400002>
- MILAGRES, C.S., et al. Self-perceived oral health status, chewing ability and longevity in the elderly/Condição de saúde bucal auto percebida, capacidade mastigatória e longevidade em idosos. *Ciencia & Saude Coletiva*. 2018, **23**(5), 1495-1507. <https://doi.org/10.1590/1413-81232018235.14572016>
- MOREIRA, R.D.S., NICO, L.S., and SOUSA, M.D.L.R.D. Fatores associados à necessidade subjetiva de tratamento odontológico em idosos brasileiros. *Cadernos de Saúde Pública*. 2009, **25**(12), 2661-2671. <https://doi.org/10.1590/S0102-311X2009001200013>
- MOURA, C., et al. Autoavaliação da saúde bucal e fatores associados entre adultos em áreas de assentamento rural, Estado de Pernambuco, Brasil. *Cadernos de Saúde Pública*. 2014, **30**(3), 611-622. <https://doi.org/10.1590/0102-311X00117012>

MURALIDHARAN, S., et al. Dentition status and treatment needs and its correlation with oral health-related quality of life among men having sex with men and transgenders in Pune city: A cross-sectional study. *Journal of Oral and Maxillofacial Pathology: JOMFP*. 2018, **22**(3), 443. https://doi.org/10.4103/jomfp.JOMFP_187_18

RADIX, A.E., LELUTIU-WEINBERGER, C. and GAMAREL, K.E. Satisfaction and healthcare utilization of transgender and gender non-conforming individuals in NYC: a community-based participatory study. *LGBT health*. 2014, **1**(4), 302-308. <https://doi.org/10.1089/lgbt.2013.0042>

RUSSELL, S. and MORE, F. Addressing health disparities via coordination of care and interprofessional education: lesbian, gay, bisexual, and transgender health and oral health care. *Dental Clinics of North America*. 2016, **60**(4), 891-906. <https://doi.org/10.1016/j.cden.2016.05.006>

SAMUEL, S.R., MURAGABOOPATHY, V. and PATIL, S. Transgender HIV status, self-perceived dental care barriers, and residents' stigma, willingness to treat them in a community dental outreach program: Cross-sectional study. *Special Care in Dentistry*. 2018, **38**(5), 307-312. <https://doi.org/10.1111/scd.12315>

SILVA, T.O. and RIOS, P.P.S. Gender, sexual diversity and field education: "in rural communities many people do not understand and treat it as a disease". *Journal of Research and Knowledge Spreading*. 2020, **1**(1), e11418. <https://doi.org/10.20952/jrks1111418>

da SILVA, R.G.L.B., BEZERRA, W.C. and de QUEIROZ, S.B. Os impactos das identidades transgênero na sociabilidade de travestis e mulheres transexuais. *Revista de Terapia Ocupacional da Universidade de São Paulo*. 2015, **26**(3), 364-372. <https://doi.org/10.11606/issn.2238-6149.v26i3p364-372>

World Professional Association for Transgender Health (WPAT). *Normas de atenção à saúde das pessoas trans e com variabilidade de gênero*. 7th ed. East Dundee: World Professional Association for Transgender Health, 2011. Available from: https://www.wpath.org/media/cms/Documents/SOC%20v7/SOC%20V7_Portuguese.pdf

Received: 30 June 2020 | **Accepted:** 13 August 2020 | **Published:** 12 January 2021



This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.