

Original articles

Self-perception of voice in transgender people

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ABSTRACT

Purpose: to describe the transgender people's self-perception of voice.

Methods: a total of 60 people participated in this cross-sectional study. They attended a reference outpatient center for the health of lesbians, gays, bisexuals, and transgender people. The data collection consisted of self-administered questionnaires, a participant's profile questionnaire, and a voice self-assessment questionnaire.

Results: most of the interviewees were young people who had never visited a speech-language-hearing therapist with the Public Health System (*Sistema Único de Saúde*); in general, they expressed interest in having such attention. The answers revealed an impact in the axes assessed, namely: "use of the voice in social life", "mischaracterization of gender, due to the voice", and "indication of dysphonia". Voice symptom characteristic of dysphonia was also identified in some people.

Conclusion: transgender people are unsatisfied with their voices, which is an element that hinders the perception of the identified gender. It also has repercussions in their social, emotional, labor, and interpersonal lives. Hence, it is important to include speech-language-hearing therapy in the transgendering process, which is desired by most of the transgender people.

Keywords: Voice; Transgender Persons; Self Concept; Gender Identity

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INTRODUCTION

Transgender people are those whose gender identity differs from the gender attributed to them at birth. Transgender men are those who identify themselves in behaviors, names, and appearance attributed to males, and need to be socially recognized as any other man. Transgender women are those who identify themselves with characteristics attributed to females and need also to be socially recognized as any other woman¹. Just as transgender women, the transvestites prefer to be treated and recognized as females. However, the term transvestite is socially stigmatized and oftentimes associated with prostitution¹.

These people take on them a new name and a modified physical structure to give sense to a body that seems to be mistaken². To this end, they make use of interventions, hormones, and even surgeries, to feel more in consonance with their gender identity¹.

The field of health is relevant for the transgenering process, as it many times involves hormones, which is under the responsibility of the SUS (Brazilian public health care system), as expressed in the resolution no. 2,803, of November 19, 2013, which “Redefines and broadens the transgenering process in the Public Health System - *Sistema Único de Saúde* (SUS)”³. The hormonal interventions for transgender people make them acquire sexual characteristics according to their gender identity and reduce the secondary sexual characteristics of their biological gender. The testosterone is the main hormone used by transgender men, and estrogen, by transgender women and transvestites⁴.

The history of health policies for lesbians, gays, bisexuals, and transgender people (LGBT) has had many struggles⁵. Currently, although there is the national comprehensive health policy for lesbians, gays, bisexuals, transvestites, and transgender people (LGBT), which aims to “Promote comprehensive health to lesbians, gays, bisexuals, transvestites, and transgender people, eliminating institutional discrimination and prejudice, as well as reducing the inequalities and consolidating the SUS as a universal, comprehensive, and equitable system”⁶, there are still many problems in making effective the broadened concept of health. Therefore, this population is not given universal access to it, as their social name is disrespected, besides cases of transphobia, transvestitephobia, and pathologizing practices and diagnoses in the transgenering process^{5,7}.

A reference to understand how the LGBT health public policies are working is the perception of transgender people regarding their voice⁸, as the effort to have a voice more harmonious with their gender identity is one of the most important issues in the transgenering process. And the manner others perceive this voice many times may be related to the transgender people’s quality of life^{8,9}. Thus, these people want a voice that fits their gender identity, considering that many times the voice is one of the aspects that most hinders recognizability.

For this population, recognizability takes place when the body characteristics make the transgender person not identified when in public¹⁰. When such recognizability is limited due to voice characteristics, some transgender people may feel embarrassed, and this mistake in gender perception may make them vulnerable¹¹. A recent Brazilian study reinforces this idea, showing the testimony of a transvestite who reports being treated as a man on the phone, which makes her uncomfortable¹².

Some studies on the voice of transgender people focus on its quality through fundamental frequency. However, the quality of life related to the voice does not depend exclusively on the fundamental frequency. One of the issues correlated with the quality of life is the self-perception of voice, as the listeners’ perception^{8,9,13}. When speaking of the quality of life related to the voice, the present-day studies focus on developing instruments to measure this object. The voice self-assessment protocols quantify the person’s perception regarding their voice, focusing on perceiving the impact of dysphonia, vocal disadvantages, and quality of life, or even as an identification of symptoms of voice problems¹⁴. These instruments may be directed to a disease or specific population and are being widely used by researchers in recent years¹⁴.

Regarding transgender people, the self-perception of voice is important to understand and explore the complex relationship between voice, communication, and the sense of self¹³. Currently, there is already a voice self-assessment questionnaire specific for this population¹⁵, already translated to Portuguese¹⁶, which assesses the subject’s experiences with their voice. However, it is aimed only for transgender women. On the other hand, few studies have data on the vocal disadvantages in transgender people of developing countries, where the resources for health are limited⁸.

Given the above, it is concluded that voice aspects are important in a person’s impression^{8,9}. Hence, research is needed to assess the transgender

people's perception of their voice, to understand this subjective aspect of the human being. Thus, this study aimed to describe the transgender people's self-perception of voice.

METHODS

This paper was approved by the research ethics committee of the *Hospital Agamenon Magalhães* under number 2.968.477. All the participants were informed about the purpose of the research and signed the informed consent form.

A total of 60 transgender people participated in this descriptive cross-sectional study. They attended a reference outpatient center for the health of LGBT people in the municipality of Recife, PE, Brazil, between October 2018 and January 2019. A nonprobabilistic convenience sample was used. The inclusion criteria were: users of the LGBT outpatient center; over 18 years old; identified with gender identities – transgender man, transgender woman, or transvestite; available at the time of data collection, which consisted of self-administering a questionnaire. The exclusion criteria were: under 18 years old; foreigners who did not understand Portuguese; and unavailability to answer the research.

The first questionnaire was developed to survey the profile of the participants with questions on gender, age, use of hormones and for how long, whether they had access to a speech-language-hearing therapist at the SUS and if they would like to, and whether they had already undergone surgery to adequate their voice. The other data collection instruments were two voice self-assessment questionnaires – one for transgender men and the other for transgender women and transvestites. These instruments were developed by the authors of this study based on the transsexual voice questionnaire for male-to-female transsexuals (TVQMtF)¹⁵, which was later translated to Portuguese and validated¹⁶. However, the translated version is exclusively for transgender women and transvestites. Therefore, it cannot be used in this study, which counted also with the participation of transgender men. The questionnaires developed for this study have 20 questions in which the participants answered the statements as “always”, “sometimes”, or “never”, according to their experiences. They were also

divided into three axes considered in the data analysis, namely: Axis 1: Questions on the use of voice in social life (Questions number: 1, 6, 9, 11, 15, and 19); Axis 2: Questions on the gender mischaracterization due to the voice (questions number: 2, 3, 4, 5, 8, 13, 17, 18, and 20); Axis 3: Questions on dysphonia. (questions number: 7, 10, 12, 14, 16).

For the analysis, the data collected were tabulated and then statistically analyzed with the chi-square independence test and Fisher's exact test for the contingency tables that presented cells counting <5. The significance level was established in the value of $p < 0.05$. The results were presented as tables, expressed in absolute and percentual values, and their analysis was based on the frequency distribution. The statistical significance for all the answers was based on the p-value.

During the analysis, the participants who identified themselves as transvestites and transgender women were included in the same group for analysis (Transgender women). It is known that such a differentiation is important in matters of representativity, with some different aspects concerning social issues. However, regarding voice issues, both are presented similarly.

RESULTS

A total of 60 people participated in the study, as shown in Table 1. They were 29 transgender men and 31 transgender women; hence, there was no significant difference between the sample of both groups. The participants' age ranged from 18 to 61 years, most of them (55%) 21 to 29 years old. Thirty-five people, equivalent to 58% of the sample, use hormones – of these, 14 are transgender men and 21, transgender women; 37.2% of them have been using hormones for less than six months, 31.4% for over two years, 20% from six months to one year, and 11.4% from one to two years. None of the participants had been submitted to surgery to adequate their voice, such as thyroplasty, and 91.7% of the participants had never had access to speech-language-hearing care at the SUS. However, 91.7% are interested in receiving such treatment.

Table 1. Characteristics of transgender women and men participating in this study

	N or M ± SD	Percentage (%)
Gender		
Transgender men	29	48.3
Transgender women	31	51.7
Age (years)		
	25.17 ± 7.9	
18 – 20	16	26.7
21 – 29	33	55.0
30 – 39	7	11.7
40 or more	4	6.7
Use of hormone		
No	25	41.7
Yes	35	58.3
Time using the hormone		
	1.3 ± 1.2	
0 - 6 months	13	37.2
6 months - 1 year	7	20.0
1 - 2 years	4	11.4
More than 2 years	11	31.4
Have already visited a speech-language-hearing therapist at SUS		
No	55	91.7
Yes	5	8.3
Are interested in having speech-language-hearing therapy at SUS		
No	5	8.3
Yes	55	91.7
Have been submitted to voice adaptation surgery		
No	60	100.0

1. Source: Patrícia Gomes LGBT outpatient center, Recife, Pernambuco, Brazil

Captions: Sample (N); mean ± standard deviation (M ± SD); Public Health System - Sistema Unico de Saude (SUS)

Table 2 shows the data regarding the answers to the questionnaires, detailed according to the axes “Use of voice in social life”, which refers to the perception of the voice in the transgender people’s social interaction, as well as professional issues; “Mischaracterization of gender due to the voice”, which refers to how the voice can cause incompatibility with gender identity; and “Indication of dysphonia”, which refers to symptoms that can characterize a voice problem.

In the first axis, “Use of voice in social life”, most of the answers were “always” and “sometimes” for both genders, in all the six questions, with no statistical difference between the groups ($p > 0.05$). The second axis, “Mischaracterization of gender due to the voice”, was the one that presented the greatest impact in voice

self-assessment. In this axis, most of the answers from transgender men and women were also always and sometimes ($p > 0.05$), with lower percentages than in the other axes. However, question 20 had a greater association of the frequency of “sometimes” with Transgender Women, as the value obtained was different from that obtained in the count with the chi-square test ($p < 0.05$). The answers of the axis “Indication of dysphonia” were similar, in which the number of “always” and “sometimes” was higher than the “never” in most of the questions of the axis ($p > 0.05$). Nevertheless, there was a statistically significant difference in question 16, in which the answer “never” was associated with the group of Transgender Men, and “sometimes” was associated with Transgender Women ($p < 0.05$).

Table 2. Frequency of the answers in the voice self-assessment questionnaire for transgender women and men

Questions	Transgender Men						Transgender Women						p
	Always		Sometimes		Never		Always		Sometimes		Never		
	n	%	n	%	n	%	n	%	n	%	n	%	
Use of the voice in social life													
1- I'm ashamed to speak because of my voice (f)	7	24.1	13	44.8	9	31.0	2	6.5	21	67.7	8	25.8	0.099
6- I avoid speaking to strangers because of my voice	4	13.8	12	41.4	13	44.8	4	12.9	18	58.1	9	29.0	0.428
9- I'm afraid of speaking in public because of my voice	8	27.6	13	44.8	8	27.6	6	19.4	19	61.3	6	19.4	0.442
11- My voice hinders my professional life	10	34.5	9	31.0	10	34.5	7	22.6	10	32.3	14	45.2	0.553
15- My voice hinders my social life	8	27.6	7	24.1	14	48.3	9	29.0	13	41.9	9	29.0	0.237
19- I care about what other people think of my voice	8	27.6	11	37.9	10	34.5	10	32.3	12	38.7	9	29.0	0.882
Mischaracterization of gender due to the voice													
2- My voice keeps me from being recognized as a woman/man	11	37.9	11	37.9	7	24.1	9	29.0	17	54.8	5	16.1	0.416
3- My voice does not fit my physical appearance	13	44.8	8	27.6	8	27.6	14	45.2	11	35.5	6	19.4	0.694
4- If I could, I'd like to change my voice (f)	20	69.0	5	17.2	4	13.8	21	67.7	9	29.0	1	3.2	2.66
5- I disguise my voice	4	13.8	12	41.4	13	44.8	6	19.4	15	48.4	10	32.3	0.589
8- On the phone, people do not recognize me as a woman/man	15	44.1	5	14.7	9	41.2	9	29.0	14	45.2	8	25.8	0.056
13- I don't like my voice	12	41.4	10	34.5	7	24.1	11	35.5	11	35.5	9	29.0	0.872
17- After hearing my voice, people treat me as if I were a woman/man	9	31.0	10	34.5	10	34.5	9	29.0	16	51.6	6	19.4	0.313
18- I sound like a woman/man when I laugh (f)	4	13.8	14	48.3	11	37.9	3	9.7	15	48.4	13	41.9	0.936
20- I'd like my voice to be more male/female (f)	25	86.2	1	3.4	3	10.3	25	80.6	6**	19.4	0	0	0.034*
Indication of dysphonia													
7- I feel my voice tired (f)	4	13.8	11	37.9	14	48.3	1	3.2	19	61.3	11	35.5	0.123
10- When I don't pay attention, my voice gets deeper/shriller	8	27.6	14	48.3	7	24.1	10	32.3	14	45.2	7	22.6	0.925
12- I get hoarse	6	22.2	15	55.6	8	22.2	6	19.4	17	54.8	8	25.8	0.934
14- My voice cracks (f)	4	13.8	16	55.2	9	31.0	3	9.7	21	67.7	7	22.6	0.689
16- I feel discomfort or pain when I speak for long (f)	3	10.3	8	27.6	18**	62.1	1	3.2	20**	64.5	10	32.3	0.011*

Source: Patrícia Gomes LGBT outpatient center, Recife, Pernambuco, Brazil. Independence chi-square; Fisher's exact test (f); $p < 0.05$ (* and **).

DISCUSSION

In Brazil, there is not much data on the profile of the transgender population, making it more difficult to make a comparative analysis regarding the profile of those who participated in this specific study. However, researchers are already using other sources of research to characterize this population¹⁷. In the sample, most of the people interviewed were 21 to 29 years old, while the second largest group was of youth 18 to 20 years old. This young profile can be a reflex of the low life expectancy of the transgender population, who suffer high rates of discrimination and violence¹⁷. Such a life expectancy is between 30 and 35 years¹⁸.

It was observed that 58% of the sample uses hormones. Although the research was carried out in a reference outpatient center for this population, the service is not used only with this purpose – 41.7% of the participants went to the service for other health issues or to start the hormone process. This can be a reflex of current barriers to this population's universal and

comprehensive access to health services, with disrespect to their social names, transphobia, and transvestitophobia, as well as the pathologizing diagnosis in the transgendering process⁷. Hence, transgender people go to services where they feel more welcomed; for this reason, this outpatient center takes care of these people's health, either in issues related to the transgendering process or not.

Besides hormone therapy, the surgical processes (glottoplasty and thyroplasty) are part of this process. They are made to feminize the voice and consist basically of decreasing the length and mass of the vocal folds, increasing the voice frequency¹⁹, resulting in a more feminine voice. This surgery could interfere with the self-perception of the participants' voices. However, none of the participants in this research had undergone voice surgery.

Another issue that might interfere with the self-perception of voice is whether the participant had been submitted to voice therapy, as the speech-language-hearing therapy helps to get a voice more fitting to their

gender identity²⁰. Most (91.7%) of those interviewed had never had access to speech-language-hearing care at the SUS, and 91.7% are interested in it. The speech-language-hearing therapist is the professional responsible for treating human communication disorders, one of their competencies is to act in the field of voice. In this case, this would be the professional indicated to help in this process of adapting the voice of transgender people. The resolution no. 2,803, of November 19, 2013, which redefines and broadens the transgenering process in the *Sistema Único de Saúde*³, has a list of professionals included in this process, as well as the description of their practices. Nonetheless, the speech-language-hearing therapist is not included as an integral part of this multiprofessional team. The high percentage of people in this study that would like to have such attention reinforces the importance of including this professional in the multiprofessional team of the transgenering process.

To this end, the professionals must be better trained to attend this public, as most of the speech-language-hearing therapists feel comfortable with the LGBTQ population but are not much informed about their needs and specificities²¹. Anyhow, these professionals are interested in learning how to offer services to improve the communication of transgender people²¹. Therefore, they must understand about gender identity, hormone-therapy, and the other specificities of this public¹³. When the voice does not fit the person's gender identification, they can be socially harmed. Such an obstacle can lead them to avoid communicating with other people not to be exposed¹¹. Thus, such nonconformity of voice with the gender expression can constitute an access or communication barrier for a transgender person, influencing other levels of their emotional and social life, such as studies and work.

Regarding the participants' self-assessment of voice, in almost all the items of the questionnaire the less frequent answer was "never" – the more a participant gave this answer, the more they were satisfied with their voice. Thus, the transgender people's self-perception of voice has been more negative, demonstrating that these people are possibly unsatisfied with their voices. The worst these people's self-perception of voice, the greater the impact on their quality of life²². In this study, no significant differences were noticed between the transgender men's and the women's answers in all aspects researched.

For transgender men, hormone-therapy can cause more voice recognizability²³, which can have an

avoidance effect in the face of certain types of violence aimed at the transgender body. In this study, such a difference was not perceived, which can be justified as it was not the objective of the data analysis to compare the results according to the use or not of hormones, besides the time using it, making the group heterogeneous to the exposure to hormone-therapy. Considering these aspects, the results could be different, as the male hormones (testosterone, in this case) act on the vocal fold muscle structure, resulting in voice change²⁴. Hence, these individuals can have a voice with a male fundamental frequency in approximately 12 months of treatment, depending on the person²⁵. In only 10% of the cases, the results are not satisfactory in this regard, which can be justified by the decrease in hormone sensitivity²³.

It should be highlighted that it does not exclude voice therapy for transgender men, as the voice goes beyond fundamental frequency. The rhythm, speech speed, melody, and suprasegmental aspects are equally important to distinguish male from female voices. Moreover, some of them may have symptoms indicating voice problems, as well as for the transgender women, for whom the voice therapy goes beyond changes in fundamental frequency.

The axis "Use of voice in social life" involves aspects of social life, including the issue of the impact of voice in professional life. It was noticed in this axis how the voice raises social barriers. This is noticed when the lowest number of answers was "never" – i.e., most of the participants in this study have already faced fear, shame, or discomfort associated with voice issues, which are probably a reflex of transphobia. The research entitled *The Transrespect versus Transphobia Worldwide (TvT)* revealed that in 2018 Brazil continued to be the country that most killed transgender people in the world. That is, these people feel constant risk, and the unconformity between their voice and gender may expose them to transphobia. Hence, they can feel uncomfortable to speak in public. When their voice is coherent with their gender identity, there is for the listener no unbalances between the expressed gender and the voice, making it more comfortable to speak with other people¹¹.

Most of the transgender people feel that the voice hinders their professional life. This finding is important to reflect on the labor market for this population. Transgender women usually work informally, in prostitution, in beauty parlors, or call centers, when they really want a formal relationship²⁶. The voice

issues can be a hindering aspect for them to have the desired employment relationship. For this and likely for other reasons, they often have precarious working conditions to live on. The transgender men are less prone to practice prostitution to make a living. Hence, they usually seek formal employment, which is often affected by the barriers (including the voice) imposed by the transphobic society.

The answers in the second axis, “Mischaracterization of gender due to the voice”, had a negative impact. This confirms that the voice interferes with the recognizability of transgender people and that there is a self-perception that the voice is not adequate to their gender identity and, most of the time, to their physical appearance either. This self-perception is not different from that of the other people around them. For instance, transgender women, who perceive their voice as different from their gender identity, are the ones whose voice is identified as male by those who hear them^{8,9}. Hence, there is a correlation between self-assessment of voice and the listeners’ perception.

Thus, it is relevant to consider that most of these people want a voice adequate to their gender identity - i.e., transgender women would like to have a more feminine voice, and the transgender men, a more male voice. It was noticed that transgender people are not completely satisfied with their voices, although this dissatisfaction level can vary within the group. Therefore, voice treatment is necessary for the comprehensive care of transgender people, which was noticed when the vast majority of the interviewees were also interested in having speech-language-hearing therapy. Such therapy interests even some of those who did not feel so much the negative impacts in their social life, for example.

The speech-language-hearing therapy, then, is important, even indispensable, especially given the results in “Indications of dysphonia”. There are various types of dysphonia; they occur when the voice does not have adequate harmony and comfort²⁷. When there is an indication of a symptom that might characterize some organic problem in the vocal tract, it needs to be investigated and, if necessary, treated by a speech-language-hearing therapist. The voice becomes deeper or shriller when not paying attention probably because these people use a nonspontaneous voice, which in the long run can cause dysphonia. The pain and discomfort when speaking for long, apparently more present among transgender women, is also a symptom that requires assessment and intervention. Hoarseness

is another aspect that requires speech-language-hearing attention, as this symptom reveals a potential dysphonia and is one of the complaints in transgender people¹¹.

Based on this analysis of this group’s self-perception, it is understood that transgender people are unsatisfied with their voices. It was observed that using voice self-assessment questionnaires enables the relationship between these people and their voices to be represented. These instruments are easily administered and can have an important contribution to research in the field, besides being the support that can be used in clinical practice as an assessment and reassessment instrument. As for the limitations of this study, it is considered that the data were collected in Recife, Pernambuco, which is one of the Brazilian states with more services offering the transgendering process⁵. However, different results can be found in places where the LGBT population’s health care is more deficient. Moreover, no association was made with other variables, such as analyzing whether the use of hormones and the time using them interferes with the self-assessment of these people’s voices.

CONCLUSION

It is understood that transgender people are unsatisfied with their voices. The voice is an element that hinders the perception of the identified gender, with repercussions also on their social, emotional, labor, and interpersonal life. Moreover, voice symptoms characteristic of dysphonia were identified in some people. Considering these issues, it is important to include speech-language-hearing therapy in the transgendering process, from the perspective of these people’s comprehensive health promotion, furnishing the quality of life, as this is an aspect of health care desired by most transgender people.

REFERENCES

1. Jesus JG. Orientações sobre identidade de gênero: conceitos e termos. Guia técnico sobre pessoas transexuais, travestis e demais transgêneros, para formadores de opinião. 2ª ed. Brasília: Escritório de Direitos Autorais da Fundação Biblioteca Nacional; 2012.
2. Teixeira FB. Histórias que não têm era uma vez: as (in) certezas da transexualidade. *Revista Estudos Feministas*. 2012;20(2):501-12.

3. Brasil. Ministério da Saúde (MS). Portaria nº 2803, de 19 de novembro de 2013. Redefine e amplia o Processo Transexualizador no Sistema Único de Saúde (SUS). *Diário Oficial da União* 2013; 20 nov.
4. Costa EM, Mendonça BB. Manejo clínico de sujeitos transexuais. *Arquivos Brasileiros de Endocrinologia & Metabologia*. 2014;58(2):188-96.
5. Popadiuk SG, Oliveira DC, Signorelli MC. A Política Nacional de Saúde Integral de Lésbicas, Gays, Bissexuais e Transgêneros (LGBT) e o acesso ao Processo Transexualizador no Sistema Único de Saúde (SUS): avanços e desafios. *Ciênc. saúde coletiva*. 2017;22(5):1509-20.
6. Brasil, Ministério da Saúde, Secretaria de Gestão Estratégica e Participativa, Departamento de Apoio à Gestão Participativa. Política Nacional de Saúde Integral de Lésbicas, Gays, Bissexuais, Travestis e Transexuais. Brasília: Ministério da Saúde. 2012.
7. Rocon PC, Rodrigues A, Zamboni J, Pedrini MD. Dificuldades vividas por pessoas trans no acesso ao Sistema Único de Saúde. *Ciênc. saúde coletiva*. 2016;21(8):2517-26.
8. Schmidt JG, Goulart BNG, Dorfman MEKY, Kuhl G, Paniagua LM. Voice challenge in transgender women: trans women self-perception of voice handicap as compared to gender perception of naïve listeners. *Rev. CEFAC*. 2018;20(1):79-86.
9. Hancock AB, Krissinger J, Owen K. Voice perceptions and quality of life of transgender people. *J Voice*. 2011;25(5):553-8.
10. Pontes JC, Silva CG. Cisnormatividade e passabilidade: deslocamentos e diferenças nas narrativas de pessoas trans. *Revista Periódicus*. 2018;1(8):396-417.
11. Barros AD. A relação entre a voz e expressão de gênero: a percepção de pessoas transexuais [dissertação]. Brasília (DF): Universidade de Brasília; 2017.
12. Petry AR. Mulheres transexuais e o processo transexualizador: experiências de sujeição, padecimento e prazer na adequação do corpo. *Rev Gaúcha Enferm*. 2015;36(2):70-5.
13. Davies S, Papp VG, Antoni C. Mudança de voz e comunicação para indivíduos com não-conformidade de gênero: dar voz à pessoa do lado de dentro. *Revista Internacional de Transgenerismo*. 2015;16(3):117-59.
14. Madazio G, Moreti F, Yamasaki R. Protocolos de autoavaliação do impacto da disфонia. In: Marchesan IQ, Silva HJ, Tomé MC (orgs). *Tratado das Especialidades em Fonoaudiologia*. São Paulo: Roca. 2014. p. 217-38.
15. Dacakis G, Davies S, Oates JM, Douglas JM, Johnston R. Development and preliminary evaluation of the transsexual voice questionnaire for male-to-female transsexuals. *J Voice*. 2013;27(3):312-20.
16. Santos HH, Aguiar AG, Baeck HE, Van Borsel J. Translation and preliminary evaluation of the Brazilian Portuguese version of the Transgender Voice Questionnaire for male-to-female transsexuals. *CoDAS*. 2015;27(1):89-96.
17. Barbosa BRSN, Silva LV. Transexualidade, violência e ciberespaço: um estudo etnográfico digital. *Percurso acadêmico*. 2017;7(14):419-35.
18. Antunes PP. Travestis envelhecem? São Paulo, SP: Annablume; 2013.
19. Casado JC, O'Connor C, Angulo MS, Adrián JA. Wendler glottoplasty and voice-therapy in male-to-female transsexuals: results in pre and post-surgery assessment. *Acta Otorrinolaringol Esp*. 2016;67(2):83-92.
20. Hancock A, Garabedian LM. Transgender voice and communication treatment: a retrospective chart review of 25 cases. *Int Journal Lang Comm Disord*. 2013;48(1):54-65.
21. Hancock AB, Haskin G. Speech-language pathologists' knowledge and attitudes regarding lesbian, gay, bisexual, transgender, and queer (LGBTQ) populations. *AJSLP*. 2015;24(2):206-21.
22. Kasama ST, Brasolotto AG. Percepção vocal e qualidade de vida. *Pró-Fono R Atual. Cientif*. 2007;19(1):19-28.
23. Cosyns M, Van Borsel J, Wierckx K, Dedecker D, Van de Peer F, Daelman T et al. Voice in female-to-male transsexual persons after long-term androgen therapy. *Laryngoscope*. 2014;124(6):1409-14.
24. Almeida AA, Balata PM. Voz na adolescência. In: Marchesan IQ, Justino H, Tomé MC (orgs). *Tratado das Especialidades em Fonoaudiologia*. São Paulo: Roca. 2014. p. 302-17.
25. Nygren U, Nordenskjöld A, Arver S, Södersten M. Effects on voice fundamental frequency and satisfaction with voice in trans men during testosterone treatment: a longitudinal study. *J Voice*. 2016;30(6):766.e23-766.e34.

26. Souza HA. Os desafios do trabalho na vida cotidiana de mulheres transexuais [dissertação]. Campinas (SP): Pontifícia Universidade Católica de Campinas, Programa de Pós-Graduação em Psicologia, Centro de Ciências da Vida; 2012.
27. Behlau M, Azevedo R, Pontes P. Conceito de voz normal e classificação das disfonias. In: Behlau M (org). Voz: o livro do especialista. Rio de Janeiro: Revinter. 2001. p. 53-84.