https://doi.org/10.23925/2176-2724.2024v36i2e67027



# Voice rehabilitation telehealth: report experience from university extension action

## Teleconsultas em voz: relato de experiência de uma extensão universitária

## Tele salud de rehabilitación de voz: informe de experiencia de la acción de extensión universitaria

*Nicholas dos Santos Nascimento*[1]
*Aline Ferreira de Brito Mota*[1]
*Ariane Damasceno Pellicani*[1]

***Abstract***

Telehealth is included in the field of activity of the professional speech therapist and regulated in CFFa resolution nº. 580/2020. In the voice area, positive results were observed in vocal parameters via teleconsultation after the intervention. There is a gap in speech therapy graduation regarding teleconsultations, and this became evident with the COVID-19 pandemic, which made it necessary to carry out this type of service with professionals who had not had theoretical and/or practical experience. **Objective:** To report the experience in creating and developing a university extension action on voice teleconsultations for individuals with vocal complaints. **Methodology:** This is a descriptive study of the experience report type developed in an extension project. Students and teachers structured, developed, and applied a step-by-step guide for carrying out teleconsultations to deal with cases of behavioral dysphonia with the CVRP (Comprehensive Vocal Rehabilitation Program). **Results:** The teleconsultation project promoted the experience of a new practice in speech therapy for students, in addition to notions of outpatient organization, protocols to be followed, flow of care, feedback, referrals, and rules of virtual care. Twelve dysphonic individuals were included in the telehealth project. **Conclusion:** The remote activity experience brought positive gains for the students, aiming for a new care practice, with instructions

[1] Universidade Federal de Sergipe – Campus Lagarto, Sergipe, Brazil.

**Authors' contributions:**
NSN: idea developer, project writing, data collection;
AFBM: participation in data collection and analysis, writing of the scientific article;
ADP: creator of the idea, participation in data collection and analysis, writing of the scientific article, critical review of the scientific article, guidance.

**E-mail for correspondence:** adpellicani@academico.ufs.br
**Received:** 06/04/2024
**Accepted:** 07/09/2024

and training based on ethics and patient care and from a care point of view with improvement in vocal quality and vocal self-assessment of patients seen via teleconsultation.

**Keywords:** Voice; Speech Therapy; Education; Telehealth; Dysphonia.

## *Resumo*

**Introdução:** a telefonoaudiologia está inserida no campo de atuação do profissional fonoaudiólogo e regulamentada na resolução CFFa nº. 580/2020. Na área de voz observa-se resultados positivos nos parâmetros vocais após a intervenção por teleconsulta. Há uma deficiência na formação fonoaudiológica quanto a teleconsultas e isso ficou evidenciando com a pandemia da COVID-19 em que foi necessário realizar essa modalidade de atendimento com profissionais que não haviam tido experiencia teórica e/ou prática. **Objetivo:** relatar a experiência na criação e desenvolvimento de uma ação de extensão universitária sobre teleconsultas em voz a indivíduos com queixa vocal. **Metodologia:** trata-se de um estudo descritivo, do tipo relato de experiência, desenvolvido em um projeto de extensão em que discentes e docentes estruturaram, elaboraram e aplicaram um passo a passo para realização de teleconsultas para atender casos de disfonia comportamental com o PIRV (Programa Integral de Reabilitação Vocal). **Resultados:** o projeto de teleconsulta promoveu a vivência de uma nova prática na Fonoaudiologia aos discentes, além de noções de organização de ambulatório, protocolos a serem seguidos, fluxo de atendimentos, devolutivas, encaminhamentos e regras do atendimento virtual. Doze indivíduos disfônicos foram contemplados com o projeto de teleconsultas **Conclusão**: a atividade remota vivenciada trouxe ganhos positivos para os discentes visando uma nova prática de atendimento, com instruções e capacitações baseadas na ética e no cuidado ao paciente e do ponto de vista assistencial com melhora na qualidade vocal e na autoavaliação vocal dos pacientes atendidos via teleconsulta.

**Palavras-chave:** Voz; Fonoaudiologia; Educação; Telessaúde; Disfonia.

## *Resumen*

La telesalud está incluida en el campo de actividad del profesional logopeda y regulada en la resolución CFFa nº. 580/2020. En el área de la voz se observaron resultados positivos en los parámetros vocales mediante teleconsulta posterior a la intervención. Existe un vacío en la graduación de logopedia respecto a las teleconsultas, y esto se hizo evidente con la pandemia de COVID-19, que obligó a realizar este tipo de servicio con profesionales que no habían tenido experiencia teórica y/o práctica. **Objetivo:** Informar la experiencia en la creación y desarrollo de una acción de extensión universitaria sobre teleconsultas de voz para personas con quejas vocales. **Metodología:** Se trata de un estudio descriptivo del tipo relato de experiencia desarrollado en un proyecto de extensión. Estudiantes y docentes estructuraron, desarrollaron y aplicaron una guía paso a paso para la realización de teleconsultas para atender casos de disfonía conductual con el IVRP (Programa Intensivo de Rehabilitación Vocal). **Resultados:** El proyecto de teleconsulta promovió la experiencia de una nueva práctica en logopedia para estudiantes, además de nociones de organización ambulatoria, protocolos a seguir, flujo de atención, retroalimentación, derivaciones y reglas de la atención virtual. Se incluyeron doce personas disfónicas en el proyecto de telesalud. **Conclusión:** La experiencia de actividad remota trajo beneficios positivos para los estudiantes, apuntando a una nueva práctica de atención, con instrucciones y capacitación basada en la ética y la atención al paciente y desde el punto de vista asistencial con mejora en la calidad vocal y la autoevaluación vocal de los pacientes atendidos. vía teleconsulta.

**Palabras clave:** Voz; Logopedia; Educación; Telesalud; Disfonía.

## Introduction

Information and Communication Technologies (ICTs) have played a pivotal role in fostering the development of Telehealth, effectively overcoming geographical barriers and significantly enhancing the quality and accessibility of healthcare services [1].

The term "telefonoaudiology" refers to the practice of speech and language pathology therapy through telehealth and is regulated by Resolution CFFa Nº 580/2020 [2]. It focuses on health promotion, prevention, identification, evaluation, diagnosis, intervention, and voice improvement using ICTs [3].

During the COVID-19 pandemic, restrictions on in-person speech therapy prompted the widespread adoption of telefonoaudiology. The Brazilian Society of Speech-Language Pathology and Audiology (Sociedade Brasileira de Fonoaudiologia) provided training, and the Federal Council of Speech-Language Pathology and Audiology (Conselho Federal de Fonoaudiologia) disseminated guidelines for best telefonoaudiology practices [3]. Telefonoaudiology can be conducted synchronously (real-time interaction), asynchronously (via messaging or instructions), hybrid (combining both), or automatically (data recording) [3].

Studies have shown telefonoaudiology to be as effective as in-person therapy for voice treatment, consistently yielding positive outcomes in self-perception of voice, maximum phonation time, auditory perceptual judgment, acoustic measures, and user satisfaction 4,5. This robust evidence of telefonoaudiology's effectiveness should reassure and instill confidence in its potential to improve voice treatment outcomes. Dysphonia, defined as a voice disorder hindering natural vocal production, includes behavioral dysphonias per Behlau's classification, addressing vocal misuse and now termed behavioral dysphonias [6].

Vocal therapy for behavioral dysphonias may involve various strategies and therapeutic programs, such as the Comprehensive Voice Rehabilitation Program (PIRV, in Portuguese), which encompasses holistic approaches and specific exercises targeting vocal disorders. PIRV integrates bodywork, glottic source, resonance, and pneumophonic coordination, emphasizing vocal hygiene and communication attitudes. Studies confirm PIRV's effectiveness in treating behavioral dysphonias in in-person settings [7–9].

Scientific evidence supporting speech therapy via teleconsultation is crucial for evaluating the benefits of this clinical model. A recent study highlighted the need to integrate telehealth topics into speech-language pathology graduate curriculum, as many professionals lacked telefonoaudiology experience before the pandemic [10]. A survey in Bahia State revealed that 87.5% of speech-language pathologists lacked telehealth training during their undergraduate studies, underscoring the necessity of curriculum updates [11].

This study aims to report on the development and implementation of a university extension project focused on teleconsultations for individuals with vocal complaints.

## Method

This descriptive study presents an experiential report.

### *Establishment and Development of the Voice Teleconsultation Outpatient Clinic*

Initially, a literature review on telehealth practices in speech-language pathology was conducted, emphasizing Resolution No. 580/2020 and "Guidelines for Good Practices in Telefonoaudiology". Collaborating with speech-language pathology extension students, meetings were held to develop a teleconsultation workflow (Figure 1), and the research project was submitted and approved by the Research Ethics Committee under protocol nº 5.250.760.

Google Classroom® facilitated the organization and access to necessary tools exclusively for involved students, including anamnesis and clinical evaluation protocols, voice recording, self-perception instruments, patient motivational phrases, and registration forms for potential patients. Google Meet® served as the designated platform within the university's infrastructure.

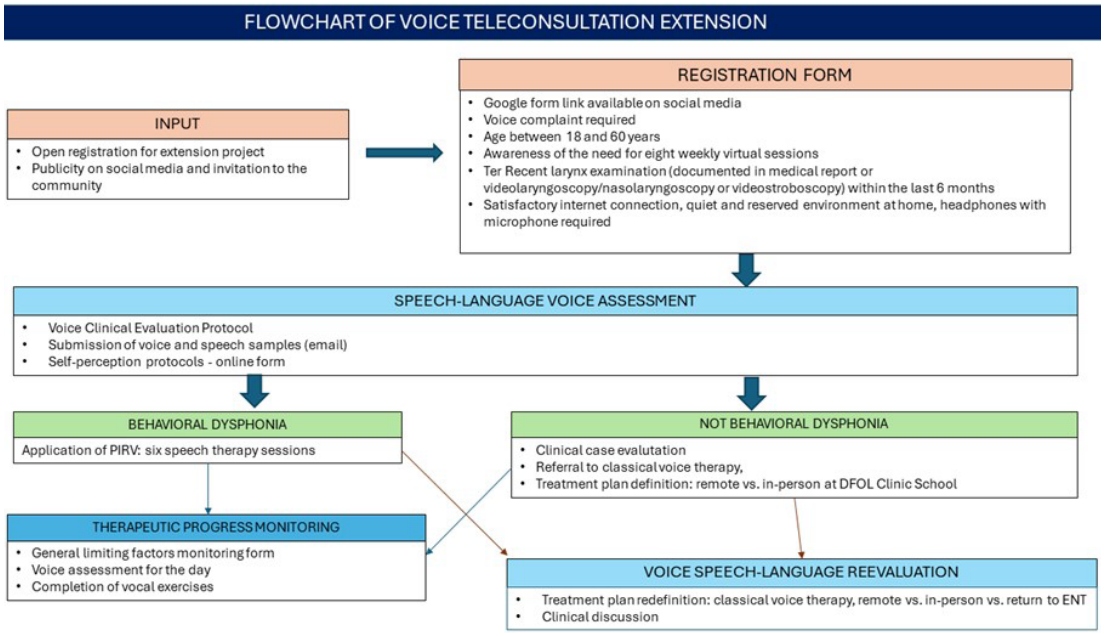


**Figure 1.** Flowchart of voice Teleconsultation extension

Project registration forms were publicized on social media and university websites, requiring candidates to attach a recent laryngoscopy report. Candidates electronically consented to participate and authorized image and voice use for academic purposes. Eligible candidates included those aged 18–60, with vocal complaints, disponibility of ten sessions, recent ENT reports, stable internet, a quiet environment, and a headset with a microphone. Candidates not meeting voice-specific criteria were excluded.

Upon reviewing the criteria, candidates underwent an online clinical assessment and completed vocal self-perception protocols via electronic forms. Candidates also submitted voice samples (e.g., sustained /a/ vowel emissions, counting 1 to 11, CAPE-V phrases) via email. Assessments included resonance type, dynamic respiratory pattern, vocal attack, and pneumophonoarticulatory coordination (adequate/inadequate).

Participants diagnosed with behavioral dysphonias (with or without lesions) underwent the PIRV via teleconsultation. Non-behavioral dysphonias were assessed, and those unsuitable for remote treatment were referred to the university's speech clinic.

Patients engaged weekly with exercise monitoring forms and motivational messages for enhanced project participation.

### *2. Training and Development of Teleconsultation by Speech-Language Pathology Students:*

The project involved collaboration with the Voice Academic League (LaVOZ), selecting students from all academic years. Each student's role aligned with their academic progression (Chart 1).

**Chart 1.** Distribution of Student Activities in the Voice Teleconsultation Project

| Year 1 | Year 2 | Year 3*\| Year 4 |
|---|---|---|
| **Secretaries** | **Assistants** | **Therapists** |
| Management of the waiting list | Assisting in the organization of clinical appointments | Organization of clinical appointments |
| Patient scheduling | Checking responses to forms | Checking responses to forms |
| Sending motivational messages | Verifying the submission of voice samples via email | Verifying the submission of voice samples via email |
| Sending monitoring and self-perception forms | Assisting with the clinical progression of patients in electronic health records | Responsible for the clinical progression of patients in electronic health records |
| Observing teleconsultations | Observing teleconsultations | Conducting teleconsultations |

*After completing the Voice module in the undergraduate curriculum.

Students participated in five three-hour virtual training sessions before project initiation, simulating form applications and teleconsultation procedures under faculty supervision.

## Results

### *1. Vocal Outcomes from the Comprehensive Voice Rehabilitation Program (PIRV) Participants:*

Twelve individuals participated; three required in-person clinic referrals due to technological constraints, four did not fully adhere to the proposed treatment, and five completed PIRV rehabilitation via teleconsultation. Participants, aged 24–50, were diagnosed with behavioral dysphonias (Table 1).

Voice samples underwent double-blind perceptual evaluation using the GRBASI scale by experienced speech-language pathologists, achieving 100% agreement. Pre-intervention vocal parameters are detailed in Table 2, showing improved Quality of Vocal Life and decreased VHI-10 across all participants.

PIRV via teleconsultation improved vocal quality for all participants, as shown in Table 3.

**Table 1.** Characterization of the Sample Undergoing Rehabilitation through PIRV via Teleconsultations.

| Participant | Gender | Age | Occupation | Educational Level | ENT Report |
|---|---|---|---|---|---|
| FT | F | 37 | Teacher | Bachelor's Degree | Deviated septum, Cyst on the right vocal fold, edema, Gastroesophageal reflux; |
| ML | F | 50 | Teacher | Bachelor's Degree | Behavioral dysphonia |
| LC | F | 24 | Advertising professional | Bachelor's Degree | Normal larynx |
| DJ | M | 38 | Teacher | Bachelor's Degree | Normal larynx |
| JS | M | 38 | Musician | Bachelor's Degree | Normal larynx |

**Table 2.** Pre-Rehabilitation Vocal Results through PIRV via Teleconsultations

| Participant | G | R | B | A | S | I | Pitch | Loudness | Resonance | CPFA | Vocal Attack | Articulation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 2 | 2 | 0 | 0 | 1 | 1 | Low | Strong | Laryngopharyngeal | Adequate | Abrupt | Precise/normal |
| ML | 1 | 0 | 0 | 0 | 0 | 1 | Adequate | Adequate | Laryngopharyngeal | Adequate | Isochronic | Precise/normal |
| LC | 2 | 0 | 1 | 0 | 0 | 2 | Adequate | Adequate | Normal | Inadequate | Isochronic | Precise/normal |
| DJ | 1 | 1 | 0 | 0 | 1 | 1 | Adequate | Adequate | Hypernasal | Adequate | Isochronic | Indistinct/ imprecise |
| JS | 1 | 1 | 0 | 0 | 0 | 0 | Adequate | Adequate | Balanced | Adequate | Isochronic | Precise/normal |

| Participant | Vocal Resistance | Breathing Mode | Breathing Type | Speech Rate | TMF /a/ | Avg Max Time /s/ | Avg Max Time /z/ | s/z Ratio | QVV | IDV-10 |
|---|---|---|---|---|---|---|---|---|---|---|
| FT | Reports of fatigue/muscle tension | Nasal | Costodiaphragmatic | Adequate | 8,22 | 9,8 | 9,1 | 1,07 | 72,5 | 8 |
| ML | Reports of fatigue/muscle tension | Nasal | Thoracic/medium | Adequate | 14,66 | 13 | 14,66 | 0,88 | 30 | 23 |
| LC | Reports of fatigue/muscle tension | Buccal-nasal | Thoracic/medium | Adequate | 7,1 | 7,3 | 7,9 | 0,92 | 75 | 11 |
| DJ | Reports of fatigue/muscle tension | Buccal-nasal | Abdominal/lower | Adequate | 15 | 9 | 10 | 0,9 | 85 | 3 |
| JS | Resistant | Nasal | Costodiaphragmatic | Adequate | 30,52 | 16,75 | 18,85 | 0,88 | 85 | 7 |

**Table 3.** Post-Rehabilitation Vocal Results through PIRV via Teleconsultations.

| Participant | G | R | B | A | S | I | Pitch | Loudness | Resonance | CPFA | Vocal Attack | Articulation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 1 | 1 | 1 | 0 | 0 | 0 | Adequate | Adequate | Normal | Adequate | Isochronic | Precise/normal |
| ML | 1 | 0 | 0 | 0 | 0 | 1 | Adequate | Adequate | Normal | Adequate | Isochronic | Precise/normal |
| LC | 1 | 0 | 0 | 0 | 0 | 1 | Adequate | Adequate | Normal | Adequate | Isochronic | Precise/normal |
| DJ | 1 | 1 | 0 | 0 | 0 | 0 | Adequate | Adequate | Normal | Adequate | Isochronic | Precise/normal |
| JS | 0 | 0 | 0 | 0 | 0 | 0 | Adequate | Adequate | Balanced | Adequate | Isochronic | Precise/normal |

| Participant | Vocal Resistance | Breathing Mode | Breathing Type | TMF /a/ | Avg Max Time /s/ | Avg Max Time /z/ | s/z Ratio | QVV | IDV-10 | IDV-10 |
|---|---|---|---|---|---|---|---|---|---|---|
| FT | Resistant | Nasal | Abdominal/lower | 11,77 | 10,61 | 12,31 | 0,83 | 97,5 | 0 | 8 |
| ML | Resistant | Nasal | Thoracic/medium | 16,33 | 14 | 15 | 0,93 | 45 | 22 | 23 |
| LC | Reports of fatigue/muscle tension | Buccal-nasal | Abdominal/lower | 14,43 | 9,62 | 9,71 | 0,99 | 87,5 | 8 | 11 |
| DJ | Resistant | Nasal | Abdominal/lower | 17 | 15 | 13 | 1,1 | 100 | 0 | 3 |
| JS | Resistant | Nasal | Costodiaphragmatic | 41,27 | 38,5 | 37,2 | 1,03 | 975 | 0 | 7 |

### *2. Results from Speech-Language Pathology Student Interventions:*

Nine speech-language pathology students engaged in active teaching methods, developing online clinical case forms, digital vocal guidance, motivational phrases, and teleconsultation workflows.

## Discussion

Voice professionals often seek clinical care due to vocal misuse, with interventions ranging from individual to group settings [12,13]. This study demonstrated vocal parameters in individuals with behavioral dysphonias treated remotely using PIRV [7]. Teleconsultation benefits include improved healthcare access, reduced wait times, and flexible scheduling for clients/patients, although physical assessments like head and neck muscle tension and respiratory type pose challenges [15,17].

Studies support PIRV's effectiveness in treating behavioral dysphonias in face-to-face settings [8], obtaining positive outcomes in VHI-10 and MPT, also observed in this study [9]. Telefonoaudiology studies show promising outcomes but lack comprehensive methodologies and larger samples for definitive effectiveness [3,19]. Future randomized controlled trials comparing telefonoaudiology and in-person PIRV outcomes are warranted.

The COVID-19 pandemic spotlighted telefonoaudiology's role, emphasizing continuous professional development in digital tools [2]. For

educational and extension purposes, student exposure to telepractice enhances future professionals' skills and engagement in remote speech therapy.

## Conclusions

This study detailed the initiation of a telefonoaudiology extension project, highlighting innovative speech therapy practices. Academic extension illuminates the need for ongoing research to refine telefonoaudiology's application, promoting ethical patient care. The project significantly improved participants' vocal quality of life via PIRV teleconsultation, enriching student experiences within academia.

## References


1. Nilson LG, Maeyama MA, Dolny LL, Fernando Boing A, Cristina M, Calvo M. TELESSAÚDE: DA IMPLANTAÇÃO AO ENTENDIMENTO COMO TECNOLOGIA SOCIAL. Revista Brasileira de Tecnologias Sociais [Internet]. 2018 Sep 3 [cited 2024 May 27]; 5(1): 33–47. Available from: https://periodicos.univali.br/index.php/rbts/article/view/13400

2. Carneiro TC, Arruda JS, Santos FAA dos, Araujo BL. Telefonoaudiologia: uma revisão integrativa. Distúrbios da Comunicação [Internet]. 2022 Aug 1 [cited 2024 Mar 26]; 34(2): e54039–e54039. Available from: https://revistas.pucsp.br/index.php/dic/article/view/54039

3. Lopes AC, Barreira-Nielsen C, Ferrari DV, Campos PD, Ramos SM. Diretrizes de Boas Práticas em Telefonoaudiologia [Internet]. Vol. 1, Conselho Federal de Fonoaudiologia. 2020 [cited 2024 Mar 21]. Available from: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://fonoaudiologia.org.br/wp-content/uploads/2020/09/CFFa_Diretrizes_Boas_Praticas_Em_Telefonoaudiologia_VOL1_2020-1.pdf

4. LaBarge B, Lorenz FJ, Ayala A, King TS, Gniady JP. Comparison of Voice Therapy Outcomes: Clinic vs Telehealth. Journal of Voice [Internet]. 2023 [cited 2024 Mar 26]; 0(0). Available from: http://www.jvoice.org/article/S0892199723001078/fulltext

5. Queiroz, M., Pernambuco, L. , Leão, R, Lucena, J. ,. Voice therapy in the context of Telespeech therapy in dysphonics patients: an integrative review. Audiology - Communication Research [Internet]. 2021 Dec 10 [cited 2024 May 27]; 26: e2534. Available from: https://qa1.scielo.br/j/acr/a/fGgCJqv7PGfpdzqz3hbVnwJ/?lang=en

6. Behlau M. Voz: o livro do especialista. 1 vol 2. Rio de Janeiro: REvinter; 2005.

7. Behlau M, Pontes P, Vieira VP, Yamasaki R, Madazio G. Presentation of the Comprehensive Vocal Rehabilitation Program for the treatment of behavioral dysphonia. Codas [Internet]. 2013 [cited 2024 Mar 21]; 25(5): 492–6. Available from: https://www.scielo.br/j/codas/a/DbxwgHwShWmNfTPzCSVz7Rt/?lang=en

8. Pedrosa V, Pontes A, Pontes P, Behlau M, Peccin SM. The Effectiveness of the Comprehensive Voice Rehabilitation Program Compared With the Vocal Function Exercises Method in Behavioral Dysphonia: A Randomized Clinical Trial. J Voice [Internet]. 2016 May 1 [cited 2024 May 27]; 30(3): 377.e11-377.e19. Available from: https://pubmed.ncbi.nlm.nih.gov/25959424/

9. Bonzi I, Madazio G, Moreti F, Pedrosa V, Behlau M. Diagrama de Desvio Fonatório em dois programas de reabilitação vocal. Distúrbios da Comunicação [Internet]. 2017 Sep 29 [cited 2024 Mar 21];29(3):498–509. Available from: https://revistas.pucsp.br/index.php/dic/article/view/31122

10. Almeida EC de, Alpes MF, Mandrá PP. Speech-language teletherapy practice: perceptions of Brazilian speech-language-hearing therapists. Revista CEFAC [Internet]. 2022 Nov 14 [cited 2024 May 27]; 24(4): e5022. Available from: https://www.scielo.br/j/rcefac/a/CZwfgD3Gdh4tzNgMtQ5KFFJ/

11. Oliveira I de C, Vaz D de C, Carvalho AFL de. Fragilidades e potencialidades do trabalho fonoaudiológico em ambiente virtual em tempo de pandemia de Covid-19 (SARS-CoV-2). Rev Ciênc Méd Biol (Impr) [Internet]. 2020 Dec 30 [cited 2024 May 27]; 19(4): 553–9. Available from: https://periodicos.ufba.br/index.php/cmbio/article/view/42705/24165

12. Fritzell B. Voice disorders and occupations. Logoped Phoniatr Vocol [Internet]. 1996 [cited 2024 May 27]; 21(1): 7–12. Available from: https://www.tandfonline.com/doi/abs/10.3109/14015439609099197

13. Ruotsalainen J, Sellman J, Lehto L, Verbeek J. Systematic review of the treatment of functional dysphonia and prevention of voice disorders. Otolaryngol Head Neck Surg [Internet]. 2008 May [cited 2024 May 27]; 138(5): 557–65. Available from: https://pubmed.ncbi.nlm.nih.gov/18439458/

14. Alencar SAL de, Almeida LNA, Lopes LW, Silva POC, Almeida AA. Efetividade de duas modalidades terapêuticas na redução dos sintomas vocais em pacientes com disfonia comportamental. Audiology - Communication Research [Internet]. 2020 May 11 [cited 2024 Mar 21]; 25: e2126. Available from: https://www.scielo.br/j/acr/a/vcgJqYxTqnjckrN8t9W73qn/?lang=pt

15. Cavalcanti NR, Souza BO, Gama ACC, de Medeiros AM. Efeito do programa integral de reabilitação vocal em professoras com disfonia comportamental. Codas [Internet]. 2018 Aug 6 [cited 2024 Mar 21]; 30(4): e20170182. Available from: https://www.scielo.br/j/codas/a/CtpcfVzsMz8Nnh9MgjSkNMm/?lang=pt

16. Luchesi M, Araújo B, Ayres RM, Freire C. Atendimento fonoaudiológico em grupo. Revista CEFAC [Internet]. 2011 Apr [cited 2024 May 27];13(2): 362–8. Available from: https://www.scielo.br/j/rcefac/a/rJpfnx4bxwmpZq4fQp7pmbG/

17. Ribeiro MB, Gama ACC, Bassi IB, Teixeira LC. Parâmetros vocais, laríngeos e de autopercepção de professoras disfônicas: análise após tratamento fonoaudiológico. Revista CEFAC [Internet]. 2013 Jun [cited 2024 Mar 21];15(3): 616–41. Available from: https://www.scielo.br/j/rcefac/a/cWJKPq3Sth7yyGY3yvD3bvy/?lang=pt

18. Simberg S, Santtila P, Soveri A, Varjonen M, Sala E, Kenneth Sandnabba N. Exploring Genetic and Environmental Effects in Dysphonia: A Twin Study. Journal of Speech, Language, and Hearing Research [Internet]. 2009 Feb 1 [cited 2024 Mar 21]; 52(1): 153–63. Available from: https://pubs.asha.org/doi/10.1044/1092-4388%282008/07-0095%29

19. Dimer NA, do Canto-Soares N, dos Santos-Teixeira L, de Goulart BNG. Pandemia do COVID-19 e implementação de telefonoaudiologia para pacientes em domicílio: relato de experiência. Codas [Internet]. 2020 Jun 22 [cited 2024 Mar 21]; 32(3): e20200144. Available from: https://www.scielo.br/j/codas/a/XSDnSgSsgb8hz4JHfct8Xpj/?lang=pt