



Permanent Health Education: vocal preparation for the teacher education

Educação Permanente em Saúde:
preparação vocal para o professor

Permanente En Salud: preparación
vocal para el profesor

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Abstract

Objective: Report the speech therapy experience of fifteen health education actions through orientation and vocal preparation for teachers. **Methodology:** This is a qualitative and descriptive study on education and health actions proposed and carried out in the period from 2014 to 2019 by a speech therapist from the health department of the municipality of Itapajé - CE, for teachers of municipal public schools. **Results:** The actions were carried out in the form of a conversation circle, always divided into two moments. The first moment was intended for the presentation of vocal care and the main risk factors for teachers' vocal health. The second moment was for guidance on vocal preparation, through vocal warm-up and cool-down exercises. **Conclusion:** It was possible to observe that vocal health actions were beneficial, as they led teachers to reflect and discuss vocal health. In these actions, information on vocal care was passed on to teachers, preventing them from vocal damage caused by the erroneous use of the voice. In addition, vocal health education actions provided moments of great learning about voice preparation, when teachers were presented and taught techniques for warming up and cooling down the vocal cords that contribute to a good and distant work activity.

Keywords: Voice; Health Education; Faculty; Speech, Language and Hearing Sciences.

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This study was presented at the VI International Meeting of Work and Prospects for Training Workers at the Federal University of Ceará, on 11/14/2019, in the city of Fortaleza, state of Ceará.

Authors' contributions:

VFMF - was responsible for designing the study, collecting data, writing the article.

PLAS - was responsible for revising the manuscript and responsible for guiding all stages of the work.

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Received: 12/17/2020

Accepted: 05/09/2020



Resumo

Objetivo: Relatar a experiência fonoaudiológica de quinze ações de educação em saúde através de orientações e preparação vocal para professores. **Metodologia:** Trata-se de um estudo qualitativo e descritivo sobre ações de educação em saúde que foram executadas no período de 2014 a 2019 por um fonoaudiólogo da secretaria de saúde do município de Itapajé - CE, para professores de escolas da rede pública municipal. **Resultados:** As ações foram realizadas em forma de roda de conversa, sempre divididas em dois momentos. O primeiro momento destinava-se à apresentação de cuidados vocais e dos principais fatores de risco para saúde vocal dos professores. O segundo momento destinava-se à orientação sobre preparação vocal, através de exercícios de aquecimento e desaquecimento vocal. **Conclusão:** Foi possível observar que as ações de saúde vocal foram proveitosas, pois levaram os professores a refletir e discutir sobre saúde vocal. Nessas ações, foram repassadas informações sobre cuidados vocais aos professores, prevenindo-os de prejuízos vocais causados pela utilização errônea da voz. Além disso, as ações de educação em saúde vocal proporcionaram momentos de grande aprendizagem sobre preparação da voz, ao serem apresentadas e ensinadas aos professores técnicas de aquecimento e desaquecimento das cordas vocais que contribuem para uma boa e longínqua atividade laboral.

Palavras-chave: Voz; Educação em Saúde; Docentes; Fonoaudiologia.

Resumen

Objetivo: Reporte la experiencia de terapia del habla de quince acciones de educación para la salud a través de orientación y preparación vocal para los docentes. **Metodología:** Este es un estudio cualitativo y descriptivo sobre acciones de educación en salud que se llevaron a cabo en el período de 2014 a 2019 por un terapeuta del habla del departamento de salud del municipio de xxx, para los docentes de escuelas públicas. **Resultados:** las acciones se llevaron a cabo en forma de círculo de conversación, siempre dividido en dos momentos. El primer momento pretendía presentar el cuidado vocal y los principales factores de riesgo para la salud vocal de los docentes. El segundo momento fue para orientación sobre la preparación vocal, a través de ejercicios de calentamiento y enfriamiento vocal. **Conclusión:** Fue posible observar que las acciones de salud vocal fueron beneficiosas, ya que llevaron a los maestros a reflexionar y discutir la salud vocal. En estas acciones, la información sobre el cuidado vocal se transmitió a los maestros, evitando que sufrieran daños vocales causados por el uso erróneo de la voz. Además, las acciones de educación en salud vocal proporcionaron momentos de gran aprendizaje sobre la preparación de la voz, cuando se presentaron a los maestros y se les enseñaron técnicas para calentar y enfriar las cuerdas vocales que contribuyen a una actividad laboral buena y distante.

Palabras clave: Salud Vocal; Docentes; Fonoaudiología.

Introduction

The human being has a unique voice, which can carry several traits, such as: age group, sex and emotional state¹. To achieve its functional objective, the voice must be well projected, well-articulated, with a good rhythm, good sonority, adequate speed, good pneumophonoarticulatory coordination and must be clearly emitted².

Socially, for the teacher, the voice is used as a form of communication and professionally it is used as a work tool, and sometimes, it is indispensable for dialogical relationship with the students.

In their daily work, teachers may be exposed to several risk factors for their vocal health, such

as: temperature changes, erroneous eating, competing against the noise in the classroom, exposure to allergenic agents, spending long periods without hydrating, performing vocal abuse³, prolonged voice use, long teaching hours, lack of acoustic amplification, stressful environment, use of tobacco and carbonated beverages⁴.

The exposure to risk factors for vocal health can trigger several changes, negatively affecting the teachers' work capacity, making them less effective regarding the development of relationships and the school performance of their students⁵, that is, they may present difficulty in the transmission of content and consequently affect the students' school performance.



Exposure to risk factors can also contribute to the occurrence of dysphonia, making social interaction, the dialogical relationship and the quality of life of teachers more difficult. In this sense, vocal abuse can occur due to the teacher, in the teaching-learning process, not receiving instructions, information and/or teachings about vocal health and preparation⁶.

Given the negative implications of ignorance about vocal health and vocal preparation, it is evident that the teacher needs guidance on vocal care and techniques for the daily and prolonged use of the voice in their work activities¹, such guidance can be performed through theoretical-practical speech-language interventions, through permanent education in vocal health⁷. That said, the objective of the present study is to report the speech-language and hearing experience of permanent education in vocal health carried out through orientation and vocal preparation for teachers from public schools in the municipality of Itapajé - CE.

Methodology

The present study is a report of professional experience of a qualitative and descriptive character. The study was guided by the precepts of Primary Health Care and the guidelines of the Family Health Support Center.

The actions of permanent education in health were carried out by one of the speech therapists of the Municipal Secretariat of Health of Itapajé - CE, all of them directed to teachers of early childhood and elementary education in the public school system of that municipality. The schools that received the actions were: Escola Prudêncio Pereira Passos, Escola Antônio Pinto de Oliveira, Escola Zeca Paraíba, Escola Bento Soares Guimaraes, Escola Júlio Pinheiro Bastos, Escola Antônio Viana de Mesquita, Escola Sonho Infantil and Escola Capitão Manoel Pinto de Mesquita.

In all, fifteen actions were carried out, preferably during the “World Voice Day” campaign periods, in the months of April from 2014 to 2019, and all actions were carried out in the form of conversation circles. The conversation circle form was chosen as it stimulates the dialogue between the health professional with the participating community⁸. The activities took place in teachers’ meeting rooms, libraries or idle classrooms.

In order for the actions to be executed, plans were conducted along the managers and nurses from the Family Health Strategy teams, community health agents, school principals and/or coordinators, agreeing on the best date and time, informing about the theme, the public and the speech therapist that would perform the action. In all actions, the presence of all teachers who were in the schools was requested, regardless of whether or not they presented vocal changes.

Results

The permanent health education actions were designed in order to promote vocal health and prevent vocal health issues in teachers of public schools in the municipality of Itapajé - CE, through orientation on vocal health and vocal preparation for teachers to do before and after work activities. Each action lasted approximately one hour and twenty minutes, and all actions were carried out in the form of a conversation circle. Before each of the actions, pamphlets with information on health and vocal preparation were made available to all participating teachers from all schools.

Each of the fifteen actions was divided into two moments. The first moment focused on the presentation of vocal care and the main risk factors for teachers’ vocal health. The second moment, on the other hand, focused on orientation on vocal preparation, through exercises to warm up and cool down the vocal cords.

The first moment

It was conducted in the form of a questions and answers game, in which the speech therapist asked, analyzed the response of teachers, commented and / or presented the correct answer. In the comments and responses, some information about vocal care and the main risk factors for vocal health were explained.

For the realization of this moment, the material “Vocal Well-being - A New Perspective of Taking Care of the Voice” was used, which addresses three essential perspectives for the teacher’s vocal well-being: voice, body and environment⁹.

In order for the perspectives to be reflected incisively, the speech therapist initially defended that, for the teacher to be able to transmit their knowledge verbally in the teaching and learning process for a long time, they must have some





knowledge about the dynamism of the production of their voice, in addition to having some notions of vocal health.

In the first essential perspective, voice, the following questions were asked: 1) How is the voice produced? The air that leaves the lungs passes through the vocal folds and promotes their vibrations, producing the voice, and with the movements of the articulators, like the tongue and lips, the voice produces the sound of speech; 2) What helps the voice? Good health condition, speech therapy training, hydration with water, dosing the speech time, the tone of the voice, the volume of the voice, rest intervals of speech and competition with other noises; 3) What harms the voice? Talking too much when you are sick, stressed, tired, after a bad night's sleep, smoking and alcohol; 4) What are the main tips to keep my voice healthy? Paying attention to your voice, reducing speech strength, improving physical conditions, respecting eating and rest times, improving the physical work environment, speaking more slowly, articulating words well, opening your mouth when speaking and modulating your voice, being objective when speaking, using short and direct phrases, not facing the blackboard while speaking, using gestures to highlight ideas and words and avoiding reading aloud; 5) What to do when I am hoarse and tired? The best attitude would be to rest your body and voice⁹.

It was possible to observe that the teachers had a good understanding of this perspective, and the speech therapist listed all the techniques that contribute to the adequate emission of the voice in the classroom and emphasized the need to respect the moment of daily voice rest, as well as to avoid the factors that can impair the voice.

In the second essential perspective - body, the following questions were asked: 1) How does my body interfere with the voice? The whole body contributes to the production of the voice, for example, if the body is sick, the voice often signals this fact; 2) Can a diet help with the voice? Yes, heavy and very spicy foods should be avoided, as well as, fasting for long periods, ingesting excess caffeine and eating before bed; 3) Can a stomach problem interfere with the voice? Yes, especially gastroesophageal reflux, the fluid in the stomach can inflame or irritate the larynx, causing hoarseness; 4) How do I know if I breathe well when speaking? Most people have good breathing to speak, however, speaking until the end of the breath

or starting to speak without breathing, can impair the voice mechanism; 5) Is there a relationship between sleep and voice? Yes, people who sleep better have a cleaner voice quality; 6) Is there a relationship between physical exercise and voice? Exercising is good for the voice, however, one should avoid speaking during exercises that require strength; 7) Are there any miraculous recipes for the voice? No; 8) Can clothes interfere with the voice? Yes, tight clothing around the neck, chest and waist can restrict the movement of structures and impair the mechanism of vocal production. Very high heels can induce body and vocal tension; 9) Can hearing problems impair your voice? Yes, because we monitor the voice through our hearing. Listening well is essential to control the tone, effort and quality of the voice. 10) Does the voice age? Yes. Just like the whole body⁹.

Knowing the body-voice relationship is essential for the performance of teachers' work activities. In the body perspective, it was possible to observe that the teachers had more doubts in the questions about the relationship between the voice and food and physical exercises. The orientations helped the teachers to reflect on their body health, and to realize that they should take care of their voice, but also of their body as a whole, having time to sleep, performing regular physical activities, adopting a diet with food that does not harm the voice and respecting the signals that the body can emit when vocal health is deteriorating, such as loss of auditory feedback from your voice and shortness of breath when speaking.

In the third essential perspective - environment, the following questions were asked: 1) What are the worst environments for my voice? Polluted and noisy environments; 2) Does the noise disturb the voice? We lose control of the voice through hearing and through reflex we automatically speak louder and with greater effort when exposed to noise; 3) Does the microphone help in the classroom? Yes. It helps with rest and contributes to the treatment of dysphonia; 4) Does the phone help or hinder? Talking on the phone in excess and under inadequate conditions can be a factor in phonotrauma; 5) Is it better hot or cold weather? Too much heat or too much cold can cause bodily and vocal discomfort; 6) Dry or wet weather? Wet weather helps voice production, dry weather favors the installation of allergies and other respiratory problems; 7) How does pollution disturb the voice? It can cause al-





lergic respiratory crises, impairing the voice; 8) Is singing good or bad? It is good as long as it is done in the proper tone and effortlessly. Singing is not a treatment, it is not vocal rehabilitation and it can be an additional effort if you have spoken all day; 9) How to silence students? Don't try to compete by speaking louder, use strategies like clapping, snapping your fingers, hitting the table; 10) How do I position myself to speak in the classroom? Always speak facing the students, looking at everyone, alternately, use gestures to emphasize ideas; 11) What can I do in the presence of external noise? Close windows, doors, change the position of students in the room to be closer to them; 12) How to rebuke students' inappropriate behavior without shouting? In the case of parallel conversations, ask for silence with a deeper and firmer voice, but do not try to speak louder than the students⁹.

The first moment lasted an average of one hour, during which time it was possible to observe the engagement of teachers, contributing to the construction of actions, discussing and reflecting on all the orientations given by the speech therapist.

The second moment

After the game of questions and answers from the first moment, school teachers were invited to participate in the second moment, which addressed vocal preparation, such as vocal warm-up and cool-down techniques, through a sequence composed of vocal tract, body and speech exercises, breathing, flexibility of the mucosa and resonance.

For vocal warm-up, body exercises were performed, such as: stretching upwards and to the sides twice, ten movements of rotation of shoulders backwards, rotation of the head in movements of "yes", "no", "maybe" five times each; performing speech-language exercises: smiling and pouting ten times each, clicking the tongue and protruding the lips with opening twenty times each; performing air directing exercises: five exhales emitting the prolonged /s/ phoneme; five expirations emitting the prolonged /z/ phoneme; performing vibrating sound exercises: lip trembling fifteen times, tongue trembling coarticulated with the vowels /a/, /ε/, /i/, /o/, /u/, for example: "bra", "bré", "Brê", "bri", "bró", "brô", "bru" ten times; performing nasal sound exercises: prolonged and chewed |m| phoneme emission technique fifteen times and the prolonged |m| phoneme chewed with the vowels /a/, /ε/, /i/, /o/, /u/, emission technique for

example: |m| ... aaa, |m| ... eee, |m| ... iii, |m| ... ooo, |m| ... uuu five times¹⁰.

For vocal cooling, breathing exercises were performed: deep inhalation and exhalation with the prolonged emission of the vowel /a/ ten times, yawning ten times, ten shoulder rotation movements forward and five head rotation movements "yes", "no", "maybe"; performing exercises of vibrant sounds: emitting the prolonged phoneme |r| and vibrating the lips ten times in descending tones; performing laryngeal manipulation exercises with the fingers for one minute; performing a chanted voice for two minutes¹⁰.

This moment lasted an average of twenty-five minutes, with a rest of thirty seconds after the completion of each series of exercises, aiming at the recovery of the vocal tissue, with execution performed sitting and standing. In all the actions, it was possible to observe the engagement of the teachers, contributing to the construction of the actions, discussing and reflecting on all the orientations of the second moment, following the execution sequences of the vocal warm-up and cool-down techniques. It was possible to observe that practically all teachers were unaware of the "vocal cool-down" technique, and that after performing the exercises, most of them reported a decrease in laryngeal, scapular and cervical muscle tension, reducing vocal overload, contributing to health and vocal readjustment.

Conclusion

It was possible to observe that the vocal health actions were very useful, as they led the teachers to reflect and discuss vocal health. Through the actions of permanent education in health, these subjects were able to obtain information about vocal hygiene and vocal care, necessary to prevent vocal damage caused by the erroneous use of the voice. In addition, the vocal health education actions provided moments of great learning about voice preparation, when teachers were presented and taught techniques for warming up and cooling down the vocal cords that contribute to a good and prolonged work activity. In all actions, teachers were excited and motivated to learn about their bodies and about their own voice, they reported that actions should happen more frequently and that the speech therapist presence in the school environment is of paramount importance for preventing voice issues and promoting vocal health.





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