RESEARCH ARTICLE

Meaning of Voice Disorders. A Qualitative Study from the Perspective of Elementary School Teachers

Significado de los trastornos de voz. Un estudio cualitativo desde la mirada de profesores de enseñanza básica

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Declaration of interest
The authors declare they have no conflicts of interest.

Data availability
All the relevant data are in the article. For further information, contact the corresponding author.

Abstract

Aim. The objective of the present study was to describe the significance teachers give to voice disorders, and the reasons that dissuade them from consulting a specialist.

Method. To achieve this objective, a qualitative study was carried out with the participation of 16 elementary school teachers. The information was obtained by semi-structured interviews, which were recorded and then transcripts were prepared for analysis. The study was approved by the Ethics Committee and an informed consent was signed by each of the participants.

Results. Five categories emerged from the results: Knowledge of voice problems; Formal training and voice resources; Vocal symptoms experienced throughout the teaching career; Effects on quality of life; Treatment of and approach to voice problems. All the participants had some notion of voice problems, which they associated mainly with some symptom or discomfort experienced. The great majority stated they had never received training in voice use; they felt that their voices had changed over the years of their professional careers, becoming deeper or hoarser. A striking finding was that fifteen of the participants had never consulted a specialist, but only used home or popular remedies.

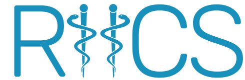
Conclusion. In conclusion, teachers form a group with a high prevalence of voice disorders; however, this contrasts with a low level of concern and a lack of knowledge about addressing such problems.

Keywords

Voice disorder; teachers; qualitative investigation; voice.

Resumen

Objetivo. El objetivo del presente estudio fue describir el significado que le otorgan a los trastornos de voz los profesores y cuáles son las motivaciones que los llevan a no consultar con un especialista.



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Contribution of the authors
Gerson Jara Cabrera: conceptualization, data curation, formal analysis, research, methodology, project management, resources, software, supervision, validation, visualization, writing: original draft, writing: revision and editing
Camila Cumilaf Ampuero: conceptualization, data curation, formal analysis, validation, visualization, writing: original draft, writing: revision and editing.
Emilia Cárdenas Pacheco: data curation, research, validation, writing: original draft, writing: revision and editing.

Método. Para tal propósito se realizó un estudio cualitativo en el que participaron 16 profesores de enseñanza básica. La información fue obtenida mediante una entrevista semiestructurada, la cual fue grabada y luego transcrita para su posterior análisis. El estudio contó con la aprobación del comité de ética y el consentimiento informado de cada uno de los participantes.

Resultados. En cuanto a los resultados, surgieron cinco categorías: Conocimiento de los problemas de voz; Entrenamiento formal y recursos vocales; Sintomatología vocal experimentada a lo largo de la carrera docente; Afectación de la calidad de vida; Tratamiento y abordaje de los problemas de voz. Todos los participantes tienen alguna noción de los problemas de voz, asociándolos principalmente con algún síntoma o molestia experimentada. La gran mayoría declara nunca haber recibido formación en cuanto al uso de la voz y expresan sentir que su voz ha ido cambiando a lo largo de los años de ejercicio profesional, volviéndose más grave o ronca. Destaca que en cuanto al tratamiento, quince de los participantes nunca han consultado con especialistas, sino que recurren a remedios caseros o populares.

Conclusión. En conclusión, los profesores corresponden a uno de los grupos donde se presenta una alta prevalencia de trastornos de voz. Sin embargo, esto contrasta con la baja preocupación y el desconocimiento respecto al abordaje de este tipo de problemas.

Palabras clave
Trastorno de voz; profesores; investigación cualitativa; voz.

Introduction
The teacher's role in the teaching-learning process is fundamental, and their voice is the instrument of indispensable work. It is used while teaching, being exposed to the risk of vocal overload or over-exertion, which can harm the teacher's ability to do their job [1]. The International Labor Organization (ILO) establishes that teachers are the first professional category at risk of contracting diseases due to the use of their voice [2].

In relation to the prevalence, it is mentioned that the percentage of voice problems in teachers is low (2.2%) when it is based on the objective diagnosis of vocal cord pathology, such as fibroscopy. However, it is high (90%) when it is based on subjective findings like the perceptual assessment of dysphonia by a speech therapist [3]. Some studies indicate that between 11% and 64% of teachers at some time present symptoms of dysphonia in the exercise of their profession [4]. Concerning the national prevalence, a study by Castillo et al. [5] describes 3 out of every 4 teachers as presenting a voice disorder of varying severity, and only 6% have been formally assessed and diagnosed. Teachers with a higher rate of voice disorders are generally those in elementary education, with the first basic cycle being a candidate for the sector where these problems are the most prevalent.

Due to the high prevalence and evidence regarding the higher incidence of vocal pathology in teachers, it is considered an occupational disease in many countries. For example, in Chile, according to Law 16.744, it is understood as an occupational disease produced directly by the labor activity and results in some type of disability

or the death of the person who performs it. To be classified as such, it must satisfy three requirements: 1) existence of a pathology, 2) disability or death caused by the pathology, and 3) relation of causality between the pathology and the exercise of the profession or work of the person affected [6].

Although voice disorders are multifactorial, one of the most frequent causes in teachers is mechanical trauma due to high repeatability or intensity of the collisions when vibrating [7]. This is known as vocal load and consists of applying a mechanical force on the tissues that act in voice function, which in this case is the vocal cords [8]. In terms of the risk factors that affect teachers, these can be classified into three types: physical (temperature changes, open spaces with bad acoustics, noise levels), chemical (dust level) and socio-professional (associated with prolonged phonation) [9]. Other authors include the high number of students per class, the long work days, and the lack of education about voice use and voice disorders [10]. All this, added to low or no training, can lead to teachers suffering from different vocal alterations [11]. The situation in Chile is no different, because teacher training programs do not include preparing the teachers through the acquisition of a vocal technique in a speaking voice that prevents professional dysphonia [5]. Another study conducted in Iquique in 2018, which sought to characterize the risk factors for dysphonia in the occupational context and the abuse and poor use in teachers, describes their lack of training about the appropriate use of their voice [12].

Despite the large number of risk factors and high incidence of vocal problems among teachers, their low awareness of this issue, the little interest in seeking medical advice when they suffer from such problems and the low adherence to voice therapy is astonishing. In this sense, a 2007 study indicates that 79% of teachers who had suffered voice disorders had never been assessed by a voice specialist [13]. Another study by Roy et al. [14] suggests that only between 10% and 15% of the teachers with dysphonia went to a specialist.

Concerning the national reality in Chile, the study by Castillo et al. is the only one that sheds light on the causes for not consulting with a specialist when teachers experience a voice disorder [5]. 402 teachers were assessed and the results showed a high prevalence of dysphonia, which contrasted with their low concern for the problem. The possible causes include the teacher only consulting when the alteration is serious. Another likely cause is that teachers are unwilling to spend time (work schedule or not) on medical appointments, treatment and prevention, or fear that the doctor may suggest reducing the use of their voice at work, stop giving classes totally, or even change their profession. Another significant limitation was the unawareness of the role of professionals involved in vocal health and the belief that voice problems are typical in teachers.

Although there is a large amount of information about voice problems in teachers and their high prevalence, there are very few qualitative studies on this type of population. However, the few that exist agree in some aspects: teachers know how important their voice is for their job, but they recognize their complete lack of knowledge in terms of its adequate use, they are unconcerned when they have a problem, and there is a need to learn a suitable vocal technique [15,16].

The purpose of this study arises from the fact that there is little awareness of this problem, especially when seeing the high prevalence of voice disorders in teachers and that they know they are one of the main groups at risk and the importance of the voice in their daily work.

Thus, the qualitative approach of this study asks about the meaning teachers give to voice disorders and what causes or motivations lead them to not consult with a specialist. This is because speech therapists must comprehend this to implement more effective programs and strategies in this important profession. By meaning, we understand teachers' valuations, expectations, prior beliefs and information about voice disorders and their management.

Methodology

Design and study type

For this study, a qualitative methodology was used, focusing on a phenomenological approach, since it endeavors, from the narrative that people make of reality, to reconstruct the experience and meaning teachers give to voice disorders.

Sample description

The sample was obtained from teachers working in three schools in the commune of Temuco (Colegio Adventista – Creadores campus, Colegio Adventista - Portales campus, and the Colegio Adventista Villarrica), which strictly fulfilled the inclusion criteria and agreed to participate voluntarily in the study through the informed consent. The sample was comprised of 16 teachers. It is important to emphasize that the Colegio Adventista is an educational establishment with a Christian approach, and therefore the teachers who work there did not consume alcohol or smoke, which is a relevant factor in terms of the genesis of voice problems. This information was corroborated by applying a general voice anamnesis to each participant.

Inclusion and exclusion criteria

For the present study, the selected sample fulfilled certain inclusion criteria: 1) elementary teachers and 2) having or having had dysphonia attributed to their teaching work. The exclusion criteria were as follows: 1) having chronic respiratory diseases or acute respiratory infections; 2) presenting organic dysphonia not due to a work-related condition. The inclusion and exclusion criteria were corroborated by the administration of an anamnesis applied individually to each of the participants; the presence or not of dysphonia was ruled out by the perceptual analysis of voice by a speech therapist external to the study with more than five years of experience in the clinical area of the voice.

It was decided to work with elementary teachers as the literature and the evidence from previous studies show it to be the cycle that presents the greatest likelihood of generating voice alterations [5,6].

Procedures

To collect the data, a semi-structured interview was used, which was created by the principal investigator based on the study objectives (see Table 1). In particular, semi-structured interviews are more flexible than structured ones because they start with planned questions that can be adjusted to the interviewees [17].

Data were collected by a speech therapist, trained in conducting clinical interviews. At any moment, the teachers could express themselves openly on the topics; in that way, new information could arise. The evaluations were carried out until the information was saturated on the topics in three consecutive interviews. These were conducted on school grounds between November and December 2022. The information was recorded with a digital voice recorder, which was later transcribed, then the recordings were deleted.

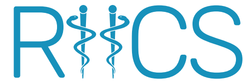


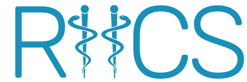
Table 1. Script of the interview.

Questions
What do you understand by voice problem?
Did you receive formal training in vocal techniques during your teacher training or throughout your career?
Do you think you have the vocal tools or resources necessary to carry out your work as a teacher?
Do you feel that your voice has changed throughout your career as a teacher as a result of practicing the profession?
What sensations or symptoms have you experienced when you have had a voice problem?
Do you feel that voice difficulties have affected your work, social or family life?
What ideas do you have with respect to treating or addressing voice problems caused by exercising your profession?
What have you done to deal with voice difficulties in your working life and daily life?
If you have sought advice from a voice professional, how was the adherence to treatment? What factors favored or impeded the adherence to treatment?
If you have not sought advice from a voice professional, what were the reasons or why did you not want to undergo treatment?

The data analysis was done manually. First, each interview was read several times to discover conceptual categories and look for emerging and recurrent themes. Second, a categorization was made from the material and coding in which text fragments were assigned to each category. For this data-qualifying procedure, a grid was created on which the text fragments were placed according to how they were coded.

Once the study was over and in repayment to the schools and teachers for their willingness to participate, some teacher voice problem awareness days, vocal hygiene and suitable voice use workshops were held.

The present study was approved by the Ethics Committee of the South Araucanía Health Service, and each participant gave their voluntary consent to participate.



Results and Discussion

The characteristics of the teachers who participated in the study follow (see Table 2).

Table 2. Characteristics of the sample.

Subject	Sex	Age	Years in the profession	Direct classroom hours
S1	Female	25	2	29
S2	Female	45	22	37
S3	Female	58	34	26
S4	Female	38	14	36
S5	Female	50	4	38
S6	Female	48	26	30
S7	Female	26	2	30
S8	Female	43	20	30
S9	Female	44	20	38
S10	Female	58	34	34
S11	Female	47	18	38
S12	Male	49	26	43
S13	Male	34	6	38
S14	Male	24	1	36
S15	Male	34	8	35
S16	Male	50	32	44

From the detailed analysis of the interviews, five categories related to the aim of the present study were identified: 1) Knowledge of voice problems; 2) Formal training and voice resources; 3) Vocal symptoms experienced throughout the teaching career; 4) Effects on quality of life; 5) Treatment of and approach to voice problems.

The first category is related to the teachers' concepts and ideas about voice problems. Of the 16 participants, all have some idea of voice problems. Three of them directly associate it with problems of the vocal tract or vocal cords: "They are problems that prevent the voice from coming out fluently due to a problem with the throat or vocal cords" (S15); "As I produce sound with my vocal tract" (S11); "When nodules appear on the vocal cords" (S4). Most of the participants associate it with some symptom or discomfort experienced: "When the voice loses the normal sound, it loses the timbre" (S2); "a scratchy voice comes out and you get very tired" (S3); "Pain or discomfort when speaking" (S5); "Little ability to raise your voice, loses power… it's hard to reach the back of the room" (S6). Finally, some attribute voice problems

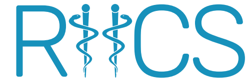
to wear and tear and speech rate: "Eee… the typical problems of wear and tear from speaking continuously for many hours" (S12); "Wear from habitual use or for spending practically the entire day speaking from 8 a.m. to the afternoon" (S13).

The knowledge they present regarding voice problems and some of its risk factors, such as excessive speech rate, agrees with some studies which report that teachers demonstrate sufficient knowledge about bad vocal habits, deleterious factors and the voice problems they can trigger [6,18]. However, they lend little importance to these when they suffer from them unless it is really serious [5].

The second category corresponds to the formal training and vocal strategies they have to carry out their work as teachers. It is important to note that of the sixteen participants, eight stated having received no training in vocal techniques, either when they were studying at university or during their years as a professional. Another important aspect is that five of the remaining teachers state having received voice management classes from their workplace, but on further investigation, they were referring to specific courses or talks that they had been given, more focused on theoretical aspects and voice care than on learning suitable use of the vocal technique: "I had one once, but a long time ago, and I don't really remember" (S2); "Three years ago a speech therapist came to give us techniques for working with your voice, gave us some exercises but it was more like a course" (S11); "Yes, twice about five or six years ago approximately, but they were short" (S16). One of the participants indicated that at university they had a subject related to voice use: "At university, we had a course called voice care and voice education. Mmmm… it was about education and voice care" (S4). As can be observed, vocal training for teachers is almost non-existent, which is consistent with what is reported in other studies on the prevalence of dysphonia in teachers, where it is mentioned that risk factors (physical, chemical, and organizational), added to the limited vocal training, can lead to teachers suffering different voice disorders [11]. The situation in Chile is no different, because teacher training programs do not include preparing teachers with voice techniques for a speaking voice that prevents professional dysphonia [5]. Another study in Iquique in 2018 that sought to characterize the risk factors for dysphonia in an occupational context and the behaviors of abuse and poor use in teachers, describes the lack of training on the suitable use of their voice [12]. Castejón [19] emphasizes the little effectiveness of prevention programs when they are limited to the conceptual and attitudinal level. Without the procedural proposals, dysphonia prevention courses lose effectiveness. The results obtained in this category are in line with other qualitative studies where teachers indicate having no formal voice studies or courses in their programs, and only one stated having knowledge, but very basic, which is why they have not been useful or applied with awareness in their classes [15,16].

Of the two remaining participants, one mentions having received vocal training, because they had a voice pathology and had to undergo treatment with a speech therapist: "When we were studying, nothing. When I started having voice problems, I went to see a speech therapist and she started telling me I have to speak, breathe and other things. Then there was a positive change" (S3). Finally, one of the teachers mentions having received vocal training, but because they participate in a music choir: "I participated in choir workshops and those things, where they also teach breathing and voice exercises" (S6).

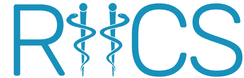
As this category demonstrates, most never received vocal technique classes or how the voice production mechanism works during teacher training. Some have only received short theoretical courses in the schools where they work. This could explain why they give so little



importance to suitable voice management or do not know how the voice should be used in the classroom: "I have listened to some things about breathing from the belly" (S10); "I know that we try not to shout or compete with the noise in the room, but when you're there ehhhh… you forget" (S6). This also is consistent with other studies that indicate that teachers give very little importance to the suitable use of their voice and that the actions to care for it remain theoretical, because in practice they demonstrate that they abuse it [20,15].

The third category is the vocal symptoms experienced throughout their job performance. When asked about if they feel that their voice has changed throughout their teaching career, 14 teachers said yes, of which the great majority perceive their voice has become deeper or hoarser: "The truth that yes, before I thought I had a finer voice, and as time goes by I have thought that I am hoarser than before" (S15); "Heeee… yes, my voice has been getting deeper, and a little hoarser every year" (S12); "Yes, yes, because for example before I sang I could hit the high notes, now I sing but no longer reach such high notes, it is a considerable change" (S4). Of the rest, one of the cases perceives a loss of power in their voice: "Yes, it's harder for me to talk, raising my voice, that's difficult" (S7). Another important point that one of the participants mentions is disregarding voice problems and seeing them as something normal for the teaching profession: "Mmm, I don't think so deeply, but all the same you get used to the wear and tear, so I see it as usual and don't perceive it as a problem, there are colleagues who are 30 or 35 years old like that" (S13). This aspect is important, since it may be one of the factors that explain the high prevalence of voice disorders and the perpetuation of voice difficulties in teachers for not consulting when they begin with the first symptoms. This is similar to reports in other national and international studies. Da Costa et al. [21] describe a lack of awareness about the role of health professionals in rehabilitating teachers' voices, and they believe that voice problems are normal in teachers and therefore they learn to live with it. Another study mentions that teachers consider voice problems secondary, inherent to teaching work, and unavoidable. This shows that the beliefs about the need to care for the voice are inadequate and that little value is given to the voice as a work tool [19]. This point is interesting, since it was also shown in another study that teachers recognize how essential their voice is for their daily performance, know the risk they run, even stating that they know colleagues who have had to request sick leave due to voice disorders. However, they are used to them and associate them with being part of the profession [16].

With regard to the symptoms they experience most frequently, either temporarily after a class or permanently, they all report uncomfortable sensations, with pain, scratchiness, and dryness predominating for most: "I feel pain in my throat, dryness and dysphonia" (S13); "For me it's like throat dryness, just a little bit of sore throat, and my voice is lower" (S2); "Sore throat, sometimes I feel like something is stopping me from speaking, it's not scratchiness, but that type of pain bothers me when I talk" (S7); "Well mmmm… wear and tear, scratchiness like my throat is dry, a little cough" (S12). They also emphasize other symptoms related to an itchy sensation, "A lot of coughing or my throat itches, just that" (S15); "Dry throat, itchiness, distorted sounds come out" (S11). According to the literature, between 11% and 64% of teachers present symptoms of dysphonia throughout their professional career [22]. The professional use of the voice, as in the case of teachers, is characterized by an excessive vocal load, which added to other factors like stress and other detrimental habits, increases the risk of dysphonia, beginning with an increase in self-perceived disagreeable sensations (throat clearing, over-exertion, dryness), inadequate functional adaptations (mainly hyperfunctional) and in some cases structural laryngeal lesions of functional origin [19]. This was also noted in

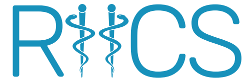


another qualitative study in which the teachers indicate hoarseness and sore throat as being something they live with daily [15].

Another study with 438 teachers yielded among its results that 50% and more of the group had presented symptoms of dry throat, scratchiness, itchiness, sore throat, neck tension, and fatigue when speaking [23], which are similar to those expressed by the subjects in the present study. The physiological explanation for the appearance of this group of symptoms is that vocal overload induces an increase in pharyngal, laryngeal and respiratory muscle tension, in which the teacher, to achieve the same performance, falls into a vicious circle of vocal over-exertion with the resulting vocal fatigue, which is accompanied by subjective symptoms, such as sore throat, scratchiness, the feeling of "something in your throat", and dryness [9,19].

The fourth category observed is the effect on quality of life, which describes how these voice problems impact their work, social or family life. Of the sixteen interviewees, eight stated that vocal difficulties have affected only their job, expressing mainly the subject of absences due to sick leave and having to replan the type of classes because they have lost their voice: "Only at work, since when you have no voice you can't perform well in the classroom" (S1); "Work yes, because sometimes when you feel that itch in your throat and you try to talk and can't" (S7); "At work yes, because I had to take sick leave and obviously it was because I couldn't talk" (S3); "In my social or family life no, because people know why, it's for using your voice for a long time, at work it means we have to plan or reformulate a class that isn't prepared in order not to use your voice so much" (S15). Only one of the participants states being affected at the family level: "In family life, I tend to speak more loudly like forcing my voice, and sometimes when I'm at home they say I speak too loudly, so I've noticed that it irritates" (S2). The remaining participants state not feeling affected in any sphere, as they can continue speaking the same or because they associate it with being part of the profession: "No, no, not at all because I speak the same" (S4); "No, no, it hasn't affected me. Nothing else because they understand me that it is wearing on my voice, the only thing they say to me is you don't talk like that" (S11). These findings, which show mainly an occupational effect, agree with other studies which report that in the United States every year between 20% and 30% of teachers request sick leave for dysphonia [24]. Verdolini and Ramig [25] estimate the cost of treatment and sick leave due to dysphonia at 2.5 billion dollars. Malebrán and Contreras [6] indicate that voice disorders mainly in this group produce occupational disability that ends up affecting social and emotional aspects.

The last category to emerge is the treatment and strategies to confront vocal difficulties. Concerning the knowledge they have in terms of the treatment for voice problems, half of those interviewed state having no idea how they are addressed: "Uhhh the truth is I don't know, I have thought that if once you lost your voice it's forever" (S1); "The truth is I don't have many, because I had never thought about the voice one. I have almost no idea" (S7); "Not much, or actually nothing, I know that there are nodules and that they are operated on" (S4). The remaining half of the teachers note having slight knowledge, but very basic, referring to the non-locutionary parameters of the voice and only conceptually: "I imagine there are voice and posture exercises, but something like I'm an expert, no" (S9); "Well… very little actually, they have to do with the posture with being able to be hydrated for a certain amount of time" (S15); "There are vocal techniques and it seems a little breathing but I don't really know" (S2). These comments, expressed by some participants, agree with those of elementary school teachers in Spain in a 2017 study, where they indicate "I try to control emotional



stress", "I try not to grit my teeth and breathe right", "I try to use the ideal tone". Despite knowing the theory correctly, however, they continue having voice problems [15].

When asked how they deal with these difficulties daily, an interesting aspect to highlight is that the great majority do so by drinking some type of infusion or eating candies with menthol or honey: "I take propolis lozenges" (S9); "Honey and homemade remedies more than anything" (S8); "Herbal tea, tea with lemon or ginger and this thing called propolis" (S5); "I bought some lozenges for a sore throat, propolis is the typical thing they say" (S14). Four of the remaining participants mention increasing water intake as a strategy: "Well… being more careful and increasing water intake" (S12); "I have my bottle, I have a bottle here, everywhere, with water" (S11); "Nothing, I have not done anything, at the most when I'm like that I drink more water" (S2). All these arguments demonstrate that the credibility of the meanings developed by popular traditions or beliefs is often not discussed and practices initiated in childhood or in the family remain current and can be repeated from generation to generation. In this case, they often trust in the word of another teacher or friend who refers to their experience with these popular beliefs reproduces the veracity of what is related, retransmitted, and reinforced [26]. In this sense, our role as health educators lies in listening to the popular beliefs or treatments and then explaining why this belief is not true, being careful not to hurt our patient's feelings.

One of the interviewees indicates that when they have voice problems they go to a specialist or doctor: "I see a doctor right away. Because a teacher with no voice isn't well" (S3). This information is highly relevant, since it shows teachers are little concerned or lack awareness regarding the approach to voice disorders, where fifteen of the sixteen people interviewed say they have never consulted a speech therapist or specialist. These findings reaffirm what has been reported in previous studies: the high prevalence of dysphonia in teachers contrasts with the low concern regarding their vocal health [5] and the low level of consultation due to vocal pathology [6]. Hamdan [13] suggests that 79% of teachers categorized as dysphonic in his study had never been evaluated by a specialist.

In the present work, when asked which of them have had reasons for not going to a professional for treatment, they emphasize three aspects. 1) lack of time: "Because of the time, I think, the time you have, that you leave here from school and have other activities and maybe there isn't enough time" (S14); "Because of the time mainly, because here you don't have much time" (S4). 2) downplaying the importance of the problem: "Because you downplay it, it feels like there are more important things than that. Then because it's not important, there are other priorities" (S2); "It hasn't been really serious, so usually with the common treatments I recover" (S12); "It's like I told you, it hasn't affected me yet, something so terrible that I can't speak, mmm… I can do my classes" (S9). Finally, 3) lack of awareness: "I didn't think it was necessary, at least before. I didn't know it could be done or that a teacher should have voice treatment to better able deal with the situation" (S7). Similar results are noted in previous studies, where they warn as barriers that teachers are unwilling to spend time on therapy, fear that the doctor will recommend reducing the use of their voice at work, fear about medical assessment, lack of awareness as to the role of professionals involved in vocal rehabilitation, and the belief that voice problems are normal in teachers, and so they must learn to live with them [5,6,14,21].

The present study highlights the lack of knowledge regarding the treatment of voice disorders, the low motivation on the part of teachers to seek advice, and the use of appropriate vocal tools from the teachers' perspective. These issues are crucial because they increase the likelihood of vocal pathologies in such an important profession regarding the use and prevalence of voice disorders, as in the case of teachers.

Limitations of the study

Research should continue on the matter and the study should be replicated with teachers from other schools and cities. It would also be interesting to know the perceptions of teachers who do classes in other cycles, such as high school or university.

Conclusion

According to the literature, teachers are one of the groups with a high prevalence of voice disorders. However, this contrasts with the low concern and lack of awareness of how to address such issues. The present study demonstrates the meaning this group of teachers gives to voice disorders, assuming it to be something normal or characteristic of the profession, with little or no knowledge about managing a suitable technique and professional approach to the problems. Thus, they emphasize a preference for homemade remedies among their beliefs rather than consulting with specialists, downplaying the problem knowing it is nothing serious and continuing to teach or communicate. The study of such phenomena allows us, as health professionals, to understand the teachers' beliefs about voice disorders, and reinforces that we still have an important role in health education.

Although being a teacher is already a risk factor due to its high vocal demand, the lack of vocal tools acquired throughout their training must be added to this, which, if addressed by universities in the curriculum, would help reduce the prevalence of these disorders. This situation necessitates further research, the implementation of voice self-care programs, and the teaching of an appropriate voice projection technique, and in this the different teacher preparation programs can be very helpful.

Referencias

1. Domínguez J, López A, Núñez S, Portela I, Vázquez E. Perturbación de la voz en docentes. Rev Esp Salud Publica [Internet]. 2019 [citado el 05 de diciembre de 2022]; 93. Disponible en: https://tinyurl.com/2moxdl6s

2. Herrera J, Castro J. Disfonía Ocupacional en docentes. Revisión de la Literatura. Acta de Otorrinolaringología & Cirugía de cabeza y cuello [Internet]. 2018 [citado el 01 marzo 2023];46:62-70. doi: https://doi.org/10.37076/acorl.v46i1.89

3. Farías P. La disfonía ocupacional. 1ª ed. España: Akadia; 2013.

4. Alvarado AF, Pinzón CE, Tovar JR, Fajardo A. Vocal nodules in a colombian teachers group with dysphonia. Med. segur. trab. [Internet]. 2013 Dec. [citado el 4 de enero de 2023];59(233):375-382. doi: https://doi.org/10.4321/S0465-546X2013000400002

5. Castillo A, Casanova C, Valenzuela D, y Castañón S. Prevalence of Dysphonia in school teachers in the district of Santiago and associated risk factors. Cienc Trab. [Internet]. 2015 Abr. [citado el 22 de noviembre de 2022];17(52):15-21. doi: https://doi.org/10.4067/S0718-24492015000100004

6. Malebrán Bezerra de Mello MC, Contreras Zamora I. Características de profesores que consultan por queja vocal en IST Viña del Mar entre los años 2012 y 2017. Revista de Investigación e Innovación en Ciencias de la Salud [Internet]. 2020 Dec;28;2(2). doi: https://doi.org/10.46634/riics.37

7. Cerda F. El trauma mecánico afectaría la voz de los profesores durante la pandemia. Fonoaudiología UC. 2021. [citado el 08 de diciembre de 2022]. Disponible en: https://tinyurl.com/2jufht22

8. Fuentes C. La carga vocal. 1° ed. Córdoba: Brujas; 2018.

9. Preciado J, Pérez C, Calzada M, Preciado P. Epidemiological study of voice disorders among teaching professionals of La Rioja, Spain. J Voice [Internet]. 2008 [citado el 10 de diciembre de 2022];22(4):489–508. doi: https://doi.org/10.1016/j.jvoice.2006.11.008

10. Morawska J, Niebudek E. Risk factors and prevalence of voice disorders in different occupational groups – a review of literature. Otorynolaryngologia - przegląd kliniczny. 2017 [citado el 10 de diciembre de 2022];16(3):94–102. Disponible en: https://bibliotekanauki.pl/articles/1033326

11. Medeiros JS, Santos SM, Teixeira L, Gama AC, y Medeiros A. Síntomas vocais relatados por professoras com disfonia e fatores associados. Audiol Commun Res, [Internet]. 2016 [citado el 12 de diciembre de 2022];21:e1553. doi: https://doi.org/10.1590/2317-6431-2015-1553

12. Mora KM, Clavijo FJ, Galdames SP, Maya CC. y Soto VA. Occupational context, vocal abuse and misuse in school teachers in the city of Iquique. Cienc Trab. [Internet]. 2018 Aug [citado el 15 de diciembre de 2022];20(62):116-120. doi: http://dx.doi.org/10.4067/S0718-24492018000200116.

13. Hamdan AL, Sibai AM, Srour ZM, Sabra OA, Deeb RA. Voice disorders in teachers. The role of family physicians. Saudi Med J. [Internet]. 2007 [citado el 15 de diciembre de 2022] Mar;28(3):422-8. PMID: 17334473. Disponible en: https://smj.org.sa/content/28/3/422

14. Roy N, Merrill RM, Thibeault S, Gray SD, Smith EM. Voice disorders in teachers and the general population: effects on work performance, attendance, and future career choices: Effects on work performance, attendance, and future career choices. J Speech Lang Hear Res [Internet]. 2004 [citado el 15 de diciembre de 2022];47(3):542–551. doi: http://dx.doi.org/10.1044/1092-4388(2004/042)

15. Bautista R. Importancia de la educación de la voz en los docentes de educación infantil. [Tesis de Grado]. España: Universidad de Las Palmas de Gran Canaria [Internet]; 2017 [citado el 05 abril de 2023]. Disponible en: https://accedacris.ulpgc.es/handle/10553/24651

16. Callejas A, Hernández A, Muñoz E, Torres C, Véliz C. Los trastornos vocales de los profesores: un estudio de casos en los profesores de Ed. Música, Ed. Física y Ed. General Básica del Colegio Adventista Porvenir. [Tesis de Grado]. Chile: Universidad Andrés Bello [Internet]; 2018 [citado 08 abril de 2023]. Disponible en: https://repositorio.unab.cl/xmlui/handle/ria/14987

17. Díaz L, Torruco U, Martínez M, Varela M. La entrevista, recurso flexible y dinámico. Investigación en educación médica [Internet]. 2013 sep [citado 10 abril 2023];2(7):162-167. Disponible en: http://riem.facmed.unam.mx/index.php/riem/article/view/430

18. Ferreira LP, Alves IA, Esteves AA, Biserra MP. Voz do professor: fatores predisponentes para o bem-estar vocal. Distúrb Comun [Internet]. 2012 [citado el 18 de diciembre de 2022];24(3):379-387. Disponible en: https://revistas.pucsp.br/index.php/dic/article/view/13154

19. Castejón L. Prevención de disfonías funcionales en el profesorado universitario: tres niveles de acción preventiva. Aula Abierta [Internet]. 2014 [citado el 18 de diciembre de 2022];42(1):9–14. doi: https://doi.org/10.1016/S0210-2773(14)70002-2

20. Diéguez O, Labrada L, Rodríguez Y. La voz: una herramienta para el profesional de la educación. Revista dilemas contemporáneos [Internet]. 2021 [citado 09 abril 2023];1:1-14. doi: https://doi.org/10.46377/dilemas.v9i1.2837

21. Da Costa V, Prada E, Roberts A, Cohen S. Voice disorders in primary school teachers and barriers to care. J Voice [Internet]. 2012 [citado el 21 de diciembre de 2022];26(1):69–76. doi: https://doi.org/10.1016/j.jvoice.2010.09.001

22. Alvarado AF, Pinzón CE, Tovar JR, Fajardo A. Vocal nodules in a colombian teachers group with dysphonia. Med. segur. trab. [Internet]. 2013 Dec. [citado el 21 de diciembre de 2022];59(233):375-382. doi: https://dx.doi.org/10.4321/S0465-546X2013000400002

23. Escalona E. Prevalencia de síntomas de alteraciones de la voz y condiciones de trabajo en docentes de escuela primaria. Aragua-Venezuela. Salud de los Trabajadores [Internet]. 2006 [citado el 04 de enero de 2023];14(2):31-54. Disponible en: https://www.redalyc.org/articulo.oa?id=375839276003

24. Thibeault SL, Merrill RM, Roy N, Gray SD, Smith EM. Occupational risk factors associated with voice disorders among teachers. Ann Epidemiol [Internet]. 2004 [citado el 4 de enero de 2023];14(10):786–92. doi: http://dx.doi.org/10.1016/j.annepidem.2004.03.004

25. Verdolini K, Ramig L. Review: occupational risks for voice problems. Logoped Phoniatr Vocol [Internet]. 2001 [citado el 4 de enero de 2023];26(1):37–46. doi: http://dx.doi.org/10.1080/140154301199690

26. Pamo O. Las creencias populares en la medicina moderna. Revista de la Sociedad Peruana de Medicina Interna [Internet]. 2013 [citado 08 abril 2023];26:37-43. Disponible en: https://revistamedicinainterna.net/index.php/spmi/article/view/325