

Original articles

Salutogenic resources for promoting teachers' vocal health

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ABSTRACT

Purpose: to understand what salutogenic resources have been developed to promote public school teachers' vocal health.

Methods: a descriptive exploratory qualitative study, carried out from September to October 2017, with teachers from the initial grades of five schools in the public school system. For data collection, semi-structured interviews were carried out, submitted to thematic analysis in the light of salutogenic theory.

Results: thirty teachers participated and four thematic axes emerged: *Voice perception in daily work*; *Voice's aggressive factors*; *Salutogenic resources to promote vocal health*; *Practices for vocal health promotion*. The following internal salutogenic resources were highlighted: the family and social bond; social relations and the propelling resources of a psychological and spiritual order. As potentialities to promote vocal health: water intake, creativity in classroom activities, quality of sleep, performance of a speech therapist, and development of health promotion practices at school.

Conclusion: teachers identify and mobilize salutogenic resources to promote the health of their voices. However, it is necessary to reformulate practices in the school context to improve teachers' vocal health and quality of life.

Keywords: Faculty; Voice; Health Promotion; Working Conditions; Quality of Life

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INTRODUCTION

Health, as an important dimension of quality of life, came to be seen broadly from the modern movement of health promotion, marked by the First International Conference, which took place in 1986 in Ottawa, Canada. Discussions related to health promotion are highlighted by the need to create or recreate a new model of producing health, in order to overcome actions still guided by the biological approach, which, although important for the sector, do not advance towards a positive concept of health^{1,2}.

As a new approach to health promotion, the Salutogenic Theory, proposed by Aaron Antonovsky, seeks to understand what generates people's health, questioning how and why certain individuals remain well and how they manage their lives despite adverse conditions. The salutogenic perspective considers individuals' well-being as a "continuum between health and disease", stating that people have internal and external resources that can be used when they face stressful situations, thus maintaining and promoting their health^{3,4}.

According to this theory, it is understood that stressors do not unconditionally turn people into patients, but the process of reacting to this stressful situation is decisive to guide individuals in situations that keep them healthy, looking for salutogenic resources to promote health^{3,5,6}. The internalization of meaningful life experiences strengthens people and at the same time shapes their salutogenic resources by transforming these resources into "generalized resources of resistance", also called protective factors. These generalized personal (internal) and environmental (external) resources can act as factors to overcome or resolve situations adverse to people's health^{3,5}.

Speech therapy, previously focused on rehabilitation, started to seek its role in health, broadly and reflexively, committed to the proposals of health promotion, favoring a comprehensive view of the human being and adapted to the context of life. Speech therapists have a significant role in maintaining people's health and quality of life, since communication permeates human relationships, contributing largely to the integration of man in society⁷.

One of the focuses of professionals' attention is the voice, with special emphasis on issues related to communicative and interactional processes that are based on oral language use, such as when workers depend on the use of voice and speech to perform their work^{8,9}. In speech therapy, teachers' voice has

received a lot of attention, mainly due to the evidence that these professionals have a higher prevalence of vocal disorders with a variation of 10.6% to 87% in those working in the municipal and public networks, early childhood and elementary education^{10,11}.

For teachers, the voice is a vehicle for direct communication with colleagues and students. Voice carries a large part of messages' expressive contents that are fundamental for establishing an affective-relational bond and for the learning process in general¹⁰. However, vocal change is mostly due to the professional use of voice and has been shown to be associated with unfavorable conditions in the environment and in the organization of teaching work^{12,13}. In addition to the risk factors arising from workers, teachers often do not have breaks to rest, and generally their wage is not compatible with their workload, which exposes them to impacts generated by stress, which compromise health in general, especially their voice^{13,14}.

Seeking a new way to understand teachers' vocal health, speech therapy actions need to expand the perception and analysis of the determinants of the health-disease process of teachers' voice through health promoting actions. Studies for promoting teachers' vocal health are in the process of achieving their specificities and characterizing their practice, highlighting that few works are based on teachers' perspective^{15,16}.

From this perspective, considering teachers' vocal health as a significant aspect of their general health and recognizing the importance of salutogenic resources for health promotion with a focus on quality of life, this study aimed to understand which salutogenic resources are developed to promote health for public school teachers' voice.

METHODS

This research was submitted to the Health Research Projects Monitoring Committee of the State Department of Education of Florianópolis and to the Institutional Review Board of the Federal University of Santa Catarina, Brazil, under Opinion 2.229.079 and CAEE (*Certificado de Apresentação para Apreciação Ética* - Certificate of Presentation for Ethical Consideration) 71022217.1. 0000.0121. The determinations of Resolution 466/12 of the Brazilian National Health Council (*Conselho Nacional de Saúde*) regarding research with human beings were fulfilled. These were clarified about the importance of the study, and, upon

acceptance of participation, the Informe Consent Form was signed.

This is a qualitative, exploratory, descriptive study, carried out from September to November 2017 in five public schools in Florianópolis, Santa Catarina State. These schools were selected in agreement with the State Department of Health, as they had a greater number of students registered and enrolled, in addition to each school representing one of the five regions of Florianópolis. Teachers from the elementary school, in full professional practice in 2017, participated in the study.

Teachers from the 1st to 5th years, with at least two years of experience, regardless of employment relationship and the presence or not of vocal changes, were included. As they present different characteristics of the studied population, physical education, sign language, support rooms, and foreign language teachers, in addition to those conducting administrative activities, were excluded.

Data collection occurred through individual semi-structured interviews, with guiding questions related to the perception of vocal health, the difficulties and potentialities that interfere with teachers' voice and the practices for promoting teachers' vocal health: How do you perceive and promote your vocal health? What are the potentials and difficulties that interfere with your voice? What resources do you know to promote your vocal health? Moreover, teachers were asked about their working hours, job tenure and the number of students in the classroom, which, along with sex and age, characterized the study participants.

The interviews were conducted by a researcher, who conducted a pilot interview with teachers from a school with the same characteristics as those included in this research, however, from the municipal network.

The meetings were previously scheduled and took place in a reserved room at school, with an approximate duration of 40 minutes; the interviews were recorded on an electronic device. Six teachers were agreed with the principals so as not to overburden their time and not impact the school dynamics. The principals raffled the teachers out of a list with professionals' names in the initial grades who were active in the schools. Thus, the population of this study totaled 30 teachers.

After each interview, participants' speeches were transcribed and stored in folders of virtual storage files, organized by the schools' names. Interviewees' names were replaced by names of flowers, followed by numbers in sequence, in order to guarantee anonymity.

Data were subjected to thematic analysis¹⁷, which unfolds in pre-analysis, material exploration, and treatment of results obtained with its interpretation, in the light of Salutogenic Theory.

Initially, data with the information regarding the research objectives were selected, making a connection with the expressions evidenced by each participant. Subsequently, interviews' transcripts were read, in order to identify the central points of the study's theme, in which four categories emerged, which were discussed among researchers.

For treatment of results, folders identified by numbers and codenames of each interviewee were selected, and the speeches of each interview were copied and pasted, which were stored in a virtual environment. Related to the interviews with each central theme, the different statements were compared and the final data analysis was constructed.

RESULTS

Thirty teachers participated in the study. The age ranged from 24 to 62 years; most were (n=24, 80%) between 38 and 43 years old. Regarding the work process organization, almost all (n=26, 86.67%) work 40 hours a week, with classrooms of 28 students and (n=25, 83.30%) state that they are temporary teachers.

From semi-structured interviews, four thematic axes emerged: *Voice perception in the daily work*; *Voice's aggressive factors*; *Salutogenic resources to promote vocal health*; *Practices for vocal health promotion*. The aforementioned thematic axes will be presented below.

Voice perception in the daily work

Regarding voice perception, 25 (83.30%) teachers state that their voice is most of the time hoarse and with failure to speak loudly and too much in the classroom. Of the total, 23 (76.67%) highlighted feeling pain in the neck, tiredness when speaking and half of teachers report that they constantly have a clearing throat, cough and hoarseness, as expressed below:

"I realize that my voice is no longer the same. It's hoarse, it fails and now I need to push harder than before, and so I get tired, with pain in my body, neck and head." (HYDRANGEA)

"My voice is hoarse, I get tired, and when I talk a lot I have cough and phlegm." (JASMINE)

All teachers consider the voice as their main work tool and a channel of communication with their students in the classroom, permeating interventions at school:

“My voice is everything to me, it is essential, without it, I do not communicate with my students, it is my power.” (YELLOW TRUMPET TREE)

“Voice is my profession, it’s how I get in contact with my students, it’s the way to change my students’ world and teach.” (PURPLE TRUMPET TREE)

It should also be noted that teachers (n=25, 83.30%) report the importance of taking care of their voice; however, they are unable to introduce care into their daily work at school:

“I take care of my voice when I realize it’s loud... I try to lower the tone, but it’s not always.” (BROMELIAD)

“I realize that I can’t take care of my voice, I think more about my class than my voice.” (WILDFLOWER MEADOW)

They all mention that they force their voice by speaking loudly all the time in the classroom and many of them sometimes need to shout to have students’ attention:

“I need the loudest voice for students to hear me, I drink water when I start to feel like I’m pushing myself.” (AZALEA)

In their entirety, they recognize the importance of taking care of their voice, but realize that they force it to speak loudly constantly and much of the time and often need to shout to have students’ attention. However, most refer that they are unable to introduce care into their routine.

Regarding the perception of their voice in the school routine, teachers understand its importance for performing their profession, contemplating its functionality in the construction of interactive and communicative procedures for the teaching-learning process. On the other hand, the voice is still perceived by teachers due to their health-disease process and the presence of complaints, signs and vocal symptoms.

Voice’s aggressive factors

Considering the school reality, teachers point out that extensive workload, noise and lack of cleanliness in the classroom are factors that affect the voice. Despite these conditions, sick leave was for short periods, for reasons not directly related to vocal overload.

Additionally, as difficulties to promote vocal health, low remuneration and devaluation of the profession or discredit of the professional category were the main reasons cited by all teachers.

“Wage does not help much, we are not valued as we should be, and this interferes with our life and health.” (ANTHURIUM)

“I could take better care of myself, go to speech therapist, but I don’t have time or money for it.” (AZALEA)

Another aspect reported by teachers was stress, a factor that impairs their performance in the classroom and that directly affects their voice:

“In fact, that classroom that we dream of no longer exists, the children arrive agitated and the teacher needs to be physically and emotionally prepared, it is very exhausting” (RED ROSE)

Others (n=26, 86.67%) refer that the external and internal noise in the classroom and the acoustics of the environment directly reflect on students’ behavior and that, in addition to the stress generated, they need to increase the volume of their voice and become hoarse:

“I misuse it a lot, my timbre is already loud, in the classroom it gets louder and I have also noticed that in all situations I am always talking loudly, but I have never been turned away.” (CAMELLIA)

The weekly workload of 40 hours and no rest intervals were mentioned by almost all teachers (n = 27.90%) as factors that interfere with vocal health promotion.

All reported lack of cleanliness in the classroom as an aspect that interferes with quality of work and, consequently, the voice in the classroom:

“There is another issue that greatly affects my voice because I have allergies (rinitis) due to precarious cleaning of the classroom; there is a lot of exposed material and they get dusty [...] and there is also the mold issue.” (PANSY)

On the other hand, the teachers in this study mentioned that they were never on sick leave due to voice problems, they were only absent for about 10 to 15 days with a medical certificate related to upper airway disorders, such as colds, flu, rhinitis, sinusitis; pain and discomfort in the spine, cervical and lumbar region; mental health, like stress.

Salutogenic resources to promote vocal health

They highlight water intake, creativity in classroom activities, quality of sleep, the presence of a professional in speech therapy at school, prosodic resources in the teaching-learning process, which influence on student learning, and quality of teachers' voice as factors to promote vocal health.

They use water intake to minimize voice wear:

"I drink water to take care of my voice, I always bring my bottle of water to the classroom." (CHRYSANTHEMUM)

"The day I don't drink water, I keep coughing all the time in class and realize I get more tired." (BROMELIAD)

Changes in positive teaching strategies and resources are pointed out:

"I am creative in class, I try to make dynamics that involve all students." (SUNFLOWER)

"I try to clap and walk in the room to get attention and students to be quiet." (AZALEA)

They emphasized (n=20.66.67%) the importance of sleep quality for their well-being:

"If I don't sleep well, I get tired a lot as well as my voice" (HYDRANGEA)

They emphasized that the classroom is a space for communication, where language and the way of expressing themselves promote social interactions, and the way teachers talk to students directly interferes with the classroom:

"The most affectionate tone and way of speaking has a lot of power in the classroom, my voice has a lot of power; by the tone, students perceive the truth and the affection." (DAISY)

All teachers highlight the importance of a speech therapist professional in the development of actions to promote vocal health at school, with guidelines, workshops, and experience groups.

"Speech therapy would be very important to have at school for our voice, guiding and collaborating in our daily work." (DAISY)

When asked about the salutogenic resources for health and well-being, teachers mentioned the family (n=29, 96.67%), having friends (n=27, 90%), thinking positively (n=27, 90 %), high self-esteem (n=28,

93.30%), putting love in everything they do in life and at work (n=21, 70%) and having faith (n=25, 83.30%).

"What strengthens me is the way I see my life. I do everything with affection, optimism and love." (PURPLE TRUMPET TREE)

Teachers report internal salutogenic resources that foster the positive formulation of their voice, of a psychological nature, and external ones, such as work, family and friends. From this perspective, internal family and social resources reflect on family support and bond and the propelling resources of a psychological and spiritual order influence life experiences.

Practices for vocal health promotion

Teachers reported that practices to promote health at school, when they occur, address voice care and focus on disease. They are usually in the form of lectures and guidelines for the prevention of dysphonia.

"The school gives a lecture, training courses, but not health promotion, nor for voice, some guidelines were given by a speech therapist." (PURPLE TRUMPET TREE)

They also asserted the importance of the school promoting health promotion practices and that, if these were introduced in the school's daily life, they would be accepted by all teachers, reflecting on their health and quality of life.

"To educate, we have to be well too, with quality of life at school." (LILY)

They highlight the interdisciplinary skills introduced in their daily lives as resources that can be vocal health promoters. Almost all of them (n=28, 93.30%) point to the possibility of developing occupational gymnastics practices at school to relax, practical activities with a speech therapist for vocal health and the participation of psychology professionals to contribute to teachers' mental health.

"It would be good if the school provided a moment for teachers to promote health and care for stress with a speech therapist and a psychologist to take care of voice and stress." (DAISY)

Teachers (n=22, 73.30%) emphasize that having a healthy diet and practicing physical exercises such as walking, cycling and weight training contribute positively to their overall health, relieving stress, which also affects vocal health.

"I take care of myself, I work out at the gym at least twice a week." (ROSE)

"For me, food is everything, I always eat healthy foods, fruits and vegetables." (LILY)

DISCUSSION

The salutogenic model questions what generates health and what resources are used to maintain it^{3,18}. To this end, the widespread resources of resistance continuously influence people's life experiences, thus allowing meaningful and coherent experiences to promote health^{3,19,20}. In this regard, the investigation of salutogenic resources to promote teachers' vocal health constitutes a relevant study for improving teachers' vocal health with the public network.

Thus, it is essential to adopt a salutogenic perspective of health, which brings an expanded and positive conception of life, in opposition to the disease and recognized in the field of health promotion. This approach demonstrates how the context and meaning of health actions and the determinants that keep people healthy can improve understanding of the types of factors that influence positive well-being in people living in adverse circumstances²¹.

In the health-disease process, there is concern in the articulation between health, subjectivity and social context, as in relation to the work developed by teachers, assessed as a complex activity with demands for continuous balance (physical, psychological, social and spiritual)²².

Studies have highlighted that teachers' voice is their main instrument of work and interaction with students, therefore, an important resource for their profession^{10,12,23,24}. Also, supporting these studies, in daily work, teachers perceive vocal symptoms such as hoarseness, vocal fatigue, weak and failed voice, pain, or discomfort when speaking, difficulty in projecting the voice and that these symptoms are signs of abuse voice resulting from an intensive use of their voice in adverse and inappropriate work conditions²³.

Other authors also point out that, in most cases, teachers' voice in the classroom is hoarse and flawed and that, due to this, they force their voice, pointing out as a possible cause an intensive and abusive use of their voice^{11,23}. In this context, it is essential to emphasize actions that promote vocal health so that the perceptions mentioned by teachers do not compromise the teaching process, given that learning can be influenced by educators' voice quality. Dysphonic voice can be

a demotivating factor in the classroom, in addition to making it difficult for students to convey and understand the message effectively²⁵.

Among the aggressive factors for the voice, the financial condition is considered a determinant of the health-disease process. Low-income people fall ill more often, have less resistance and are exposed to various health risk factors, in addition to having poor access to treatments and activities to promote health²⁰.

Another limiting factor that compromises teachers' performance in the classroom is stress¹¹. Organizational, environmental causes and a strenuous work pace affect them psychically. Working in a noisy environment may require greater effort to concentrate attention; therefore, the longer the journey, the greater the wear^{12,20}. The other aggressors that can impact professional performance are the classrooms' acoustics and students' indiscipline. This induces teachers to raise their voices to make them audible, increasing effort and tiredness at the end of the day^{10,20}.

A stressful environment is not suitable for teachers' work, as it requires teachers to remain alert at all times, with significant energy expenditure²⁶. The constancy of this risk factor can result in the Burnout Syndrome, which, among teachers, is already identified as having a high prevalence^{14,15}.

In this context, it is worth noting that voice disorders are the main responsible for sick leave and functional readaptations among teachers, with attention to vocal health being fundamental so that there is no impact on professionals' overall health²⁷. Occupational demands related to voice affect the development of Work-Related Voice Disorder (WRVD), which, composed of multi-causal factors such as those mentioned by the study participants, isolated or together, directly or indirectly, trigger or aggravate the condition of workers' vocal alteration, most of whom are teachers. WRVD can affect vocal expression, emotional impact and socioeconomic impact, which puts workers' career and survival at stake²⁷.

Regarding salutogenic resources to promote vocal health, factors also highlighted in literature stand out, such as the importance of good hydration, use of prosodic resources in the teaching-learning process, quality of sleep, healthy eating and physical activity, which are essential resources for teachers' well-being^{12,15,25,28,29}. These aspects interfere with their daily lives and reflect on teachers' ability to emancipate themselves in order to improve quality of life¹¹.

Positive health resources can favor transformations of potential factors into available assets (which people can understand, manage and make sense of), capable of producing healthy development³⁰. Individuals who have positive resources view stressors as predictable and explainable agents, demonstrating self-confidence in their ability to face and overcome them. Diseases do not arise as a result of stress, but as a result of the inability to manage it, whose stressors can also be perceived as positive factors as long as they have the competency to identify and understand them, providing them with resources and motivation to provide a new meaning to life³¹.

In order to promote health in the workplace, it is necessary to establish effective communication among managers and promote bonding^{12,24}. Concerning teachers who work long working hours and have a short rest period or even do not the practice of occupational gymnastics stands out, with the objective of reducing stress, resulting in a healthy and productive environment⁵.

It is understood the need for new interventions appropriate to teachers' reality considering socio-economic and cultural aspects, environmental influences, behavioral and personal characteristics aimed at improving professionals' quality of life and health^{28,32}. From this perspective, health promotion at schools involves comprehensive health education, the creation of healthy environments and the provision of health services, in addition to the commitment of teachers and principals to well-being and quality of life^{29,33,34}.

The widespread resources of resistance are more than the opposite of risk factors; they influence daily life and allow a state of well-being to develop, which in turn becomes meaningful experiences for the successful management of situations to promote health³.

In this sense, there are internal salutogenic resources that drive the positive formulation of health and well-being of an internal psychological nature such as positive thinking, self-esteem, spirituality, love and external family and friends⁵. Existing studies in this regard mention that external and internal psychological resources act as strongholds that help to solve challenges through meaningful experiences and successful management in the face of adverse health situations^{3,5,35}.

In the theoretical approach to salutogenesis, thinking about a broader health context means recognizing that it results from the human being's adaptive capacity to adverse life situations. For this, individuals'

autonomy and ability to manage their lives and make conscious choices are fundamental factors to stay healthy³¹.

Furthermore, studies dealing with the vocal health theme, in its minority, have sought to assess the effects of actions to promote and prevent voice disorders among teachers, with the emphasis being directed to voice assessments through vocal self-assessment and auditory-perceptual analysis³⁶. Therefore, salutogenesis can be the driving force to guide actions with an emphasis on voice, according to the health promotion strategies contemplated in the Ottawa Charter¹.

It is understood that, when portraying the contribution of salutogenesis to health promotion for teachers' voice at school restricted to a social group, at a local level, limited to a community, the findings should not be generalized. In this context, it is necessary to carry out new studies that deepen the potential of salutogenic theory to promote their health at different levels of education, with a view to deepening the knowledge of teachers' voice.

CONCLUSIONS

The results of this study showed that the generalized resources of resistance are fundamental to increase the positive health status of teachers, as practices to promote professionals' vocal health. This paradigm proposes to teachers new ways of fostering and preserving a state of harmony and well-being with the professional, social and familial settings, and with themselves, based on positive changes in health, contributing to their quality of life.

Although most professionals still identify the health of their voices by symptoms and complaints, they seek healthy behaviors in their work environment and understand the importance of including them in their daily lives for their quality of life. In contrast, problems related to the organizational and environmental characteristics of work are relevant barriers that hinder health promotion of teachers' voice.

It is noteworthy that, in order to mobilize salutogenic resources, teachers and managers should be involved, thus facilitating the link to promote health at school. These practices go beyond behavioral guidelines, incorporating actions that meet population's needs.

This study contributes to knowledge production from the perspective of salutogenic resources. The results reflect weaknesses in teachers' quality of life, which show the lack of a closer relationship with health care and speech therapy, contributing as a strategic bridge between the health and education sectors.

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