THE RISK FACTORS AND EMOTIONAL ON THE VOICE OF TEACHERS WITH AND WITHOUT VOCAL COMPLAINTS

Fatores de risco e emocionais na voz de professores com e sem queixas vocais

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ABSTRACT

Purpose: to evaluate the effect of emotional risk factors on the voice of teachers with and without vocal complaints. Method: the sample comprised 44 teachers. We used a form for collecting personal and professional data, three questionnaires concerning vocal aspects, and two questionnaires for data related to emotion. Further, we recorded voices for auditory-perceptual analysis. The teachers were divided based on the number of symptoms reported: 22 volunteers in a group of Teachers Without Complaints (TWOC) and 22 in a group of Teachers With Complaints (TWC). The latter group included individuals reporting more than three vocal symptoms. Results: the average number of symptoms described in the Voice Signs and Symptoms Questionnaire was 5.7 (±2.8) and 0.8 (±0.9) for the PCQ and PSQ groups, respectively. The PSQ reported better vocal self-assessment (p = 0.01) and the PCQ reported greater vocal impairment (p = 0.001). The PSQ group obtained the highest scores in the Physical Voice-related Quality of Life (P-VQL) (p = 0.0007) and Total VQL (p = 0.0006). The PCQ had higher values in the Total Voice Handicap Index (VHI) (p = 0.0003) and Organic VHI (p = 0.0006), and greater emotional impairment in the Self-Report Questionnaire [5.7 (±3.9)] and Trait-State Anxiety Inventory [42.5 (±12.7)]. Auditory-perceptual analysis showed that the PCQ had moderate vocal deviation with vocal roughness, breathiness, and tension, while the PSQ group showed slight deviation in all parameters. Conclusion: teachers with vocal complaints are exposed to more risk factors, and report more symptoms and vocal and emotional impairments.

KEYWORDS: Faculty; Voice; Anxiety; Emotions; Communication; Speech, Language and Hearing Sciences

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■ INTRODUCTION

The Speech, Language and Hearing Sciences has been dedicated to the study of occupational dysphonia linked to teachers, much because of the growing number of requests for absence from work related to problems involving voice. Teachers make up one of the classes most affected by vocal

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problems and various consequences are caused. such as the difficulty of developing the profession and problems related to communication, social and emotional life1.

We know that the voice is the primary instrument for performance of teachers in the classroom for the materialization of teaching and learning process. Any deviation that occurs in this instrument can affect the professional performance of teachers and engage students' learning. However, many of these professionals do not value the symptoms related to dysphonia, thus aggravating his problem. This fact makes it more difficult to recover, which may result in the removal of their professional practice².

Dysphonia is characterized by the presence of vocal symptoms and may be of organic origin and/ or functional origin, with the main symptoms: vocal fatigue, hoarseness, irritated throat, voice failure, shortness of breath to speak, among other³.

In a recent survey⁴, it was found that most teachers had altered vocal quality, being moderate the most frequent degree. Specific complaints appeared to be equally distributed among teachers with and without voice changes. Finally, the researchers identified the need for vocal health projects for this population.

Several factors interfere with the development of a vocal disorder in teachers. These are related to the work environment, excessive activities and pressure imposed by the higher courts, which can cause stress and anxiety, also components that are associated with voice problems. Thus, it is seen that emotional problems may be involved in the cause or consequence of the vocal problem1.

Some researchers point to the interference of emotions in voice production. They claim that a person expresses personality traits in his voice such as feelings, health, humor, depression, frustration, among others. Anxiety and stress cause some physiological changes in the body, so the structures that make up the vocal tract are also affected by modifying the voice emission⁵.

It should be noted that the reverse also occurs. Vocal disorders can cause psycho-emotional stress, depression and frustration which negatively affect the social functioning, in addition to cause a significant impact on life quality and work efficiency of individual^{6,7}.

In a recent study8, it was observed that the higher the level of trait anxiety, the greater the number of signs and vocal symptoms, besides there being greater impairment of communication and life quality in various aspects related to the voice use.

Given the issues presented, it was observed the need to know what the relationship between emotional aspects, especially anxiety, and voice problems in teachers. Furthermore, there being such relationship, one must consider whether it is coincidence or purpose, maintenance or genesis of dysphonia, in people with emotional impairment.

Thus, the aim of this paper is to analyze the interference of the risk and emotional factors in the voice of teachers with and without voice complaints.

METHOD

This is a quantitative, field, observational, crosssectional study. This was assessed and approved by the Ethics Committee in Research of the Lauro Wanderley University Hospital of the Federal University of Paraíba, protocol CEP / HULW No. 278/09.

Participants were 44 teachers, of both sexes, who were aged between 18-50 years, belonging to five public and private schools in the State of Paraíba.

This study selected volunteers according to the inclusion criteria of (1) having age between 18 and 50 years, because we understand that the lower limit ensures the final process of voice change and the startup of a series of structural changes in larvnx due to senescence, with a greater or lesser vocal impact⁹, (2) being teachers with and without vocal complaints and (3) having signed the Statement of Consent Form (ICF).

With regard to the exclusion criteria, it could not participate in the study individuals with neurological diseases, as well as involvement of the upper airway at the time of the survey.

Initially, the contact was made with schools in order to select silent sites for data collection, as well as the authorization of the educational institution for the research. Subsequently, teachers were contacted and have healed their doubts when faced with the Consent form to initiate a search.

Then the teachers answered the five questionnaires related to voice and emotion. Finally, we collected a sample of speech in a silent place previously selected.

The question naires used were a form with personal and professional data (length of employment, weekly schedule, type of school, subjects taught, the existence of noise in the workplace, self-perception regarding vocal problems, previous vocal treatments and medications), Questionnaire of Signs and Vocal Symptoms (QSVS), Questionnaire for Life Quality in Voice (QLQV), Voice Handicap Index (VHI) for data on the vocal aspects. For data related to emotion, especially anxiety, it was used the Trait-State Anxiety Inventory (TSAI) and Self-Report Questionnaire (SRQ-20). All questionnaires are explained below.

Vocal aspects:

· Questionnaire of Signs and Vocal Symptoms (QSVS)

It contains a list of vocal symptoms indicating the onset of a symptom in the past, present, the frequency that occurs and if it is related to work. This questionnaire was developed in English¹⁰ and had a translated and adapted version to Portuguese¹¹.

Questionnaire of Life Quality in Voice (QLQV)

The QLQV is a self-assessment questionnaire to measure the relationship of voice and life quality in issues related to communication, it has 10 items and 2 domains: the social-emotional, measured by items 4, 5, 8 and 10, and physical functioning, assessed by means of other questions. The QLQV had been translated and validated for Portuguese¹².

Voice Handicap Index (VHI)

It is a self-assessment questionnaire to measure how a vocal problem interferes with daily communication situations. It has thirty items distributed into three areas: functional, emotional and organic. It was used the validated version for Portuguese¹³.

Emotional Aspects:

Trait-State Anxiety Inventory (TSAI)

This instrument contains two subscales items with twenty items and four degrees of intensity each. The TSAI is intended to measure the subjective state of anxiety. It addresses the self-perception of the individual regarding the trait anxiety, personality trait prone to anxiety, and state anxiety, transient emotional condition at the time of application. It was used a validated version in Portuguese¹⁴.

Self-Report Questionnaire (SRQ-20)

It evaluates, through 23 questions, psychiatric disorders, common mental disorders, primarily related to anxiety, depression and stress. Men who mark six affirmative and women who marked seven affirmative were considered emotionally compromised. It used a version validated in Brazil¹⁵.

In addition to the questionnaires, a vocal sample was collected for the purpose of performing auditory-perceptual evaluation of voice. To this end, it was requested that each teacher emitted on self-reported usual frequency and intensity, the sustained vowel $/\epsilon/$ and count of 1-20. The vocal sample was collected using a microphone Logitech headset, coupled to a notebook. The vocal sample was recorded in free software PRAAT, using the sampling rate of 44100 Hz

For the auditory-perceptual evaluation, a visualanalogic scale (VAS) 100mm was used, evaluating the parameters overall grade (GG), roughness (R), breathiness (S), tension (T) and instability (I). The marking nearest 0 represents less change and the closer the 100, the greater the changes. Thus, the intensity of vocal deviation has ranges from 0 to 100 mm.

It is important to mention that for the data analysis, the participating teachers were defined as vocal complaints when reported three or more symptoms in the Questionnaire of Signs and Vocal Symptoms (QSVS) being allocated to the group of teachers with complaints (PCQ), and those who presented a number of symptoms less than three were allocated to group of teachers without complaints (PSQ).

The collected data were tabulated in a spreadsheet and then analyzed by the statistical program STATISTICA, version 6.1, being the significance level p \leq 0.05. The descriptive statistical analysis was used to describe the variables by mean, standard deviation, frequency and percentage, as well as the inferential statistics from the Mann-Whitney test to compare the groups PCQ and PSQ.

RESULTS

Below are the tables with the research results and respective discussion.

Table 1 shows the frequency of occurrence of work-related variables.

Teachers with complaints (PCQ) ministered disciplines, predominantly of the humanities, such as history, geography and Languages, while the group of teachers without complaints (PSQ) were responsible for other disciplines such as computer science and arts, followed by the Exact Sciences area. Some teachers taught at more than one discipline of different areas.

Table 1 – Absolute and percentage frequency of work-related variables

Variables	PCQ		PSQ		0: :
	N	%	N	%	- Significance
Disciplines					0.03
Biological	2	9.1	0	0	
humanities	8	36.4	1	4.5	
Exact sciences	2	9.1	4	18.2	
Languages	3	13.6	4	18.2	
Physical Education	0	0	1	4.5	
others	4	18.2	9	49.9	
not answered	0	0	1	4.5	
More than one area	3	13.6	2	9.1	
Type of School					0.004
public	8	36.4	18	81.8	
private	6	27.2	1	4.5	
both	8	36.4	3	13.6	
Reporting of noise at work					0.03
presence	20	90.9	14	63.6	
absence	2	9.01	8	36.4	

Captions: PCQ- teachers with complaints; PSQ- teachers without complaints. Mann Whitney statistical test

Both groups were mainly public schools and the largest share was in the PSQ group, with teachers who worked in both types of schools, private and public.

The group PCQ referred to there be more noise

in the workplace, than that shown by PSQ, but both groups indicated the presence of noise in schools.

Table 2 shows the means and standard deviations of vocal and emotional self-assessment of teachers with and without complaints.

Table 2 – Means and standard deviations of vocal and emotional self-evaluation of teachers with and without complaints

Variables	PCQ		Р		
	Mean	Standard deviation	Mean	Standard deviation	Significance
number of symptoms	6.6	± 2.03	0.8	± 0.9	<0.0001
Self-Assessment QSVS	5.3	± 1.6	8.8	± 0.7	0.009
Problem with Voice	1.4	± 0.5	1.8	± 0.4	0.006
Self-Assessment LQVQ	3.5	± 0.8	2.8	± 0.7	0.006
Physical LQVQ	72.9	± 17.9	91.2	± 10	0.0003
Total LQVQ	79.5	± 16.6	94.09	± 6.7	0.0003
Total SRQ	5.7	± 3.9	3.4	± 3	0.02
TSAI State	42.5	± 12.7	37	± 11.7	0.05
Total VHI	27.1	± 22.5	8.9	± 8.9	0.0003
Organic VHI	16.5	± 20.4	2.9	± 3.7	<0.0001

Caption: QSVS- Questionnaire of Signs and Vocal Symptoms; QVV- Questionnaire of Life quality in Voice; IDATE- Trait-Sate Anxiety Inventory; SRQ- Self-Report Questionnaire; VHI- Vocal handicap index. Mann Whitney statistical test

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The PCQ reported feeling more vocal and emotional symptoms and had poorer self-rated voice compared to PSQ, however they did not report a bad self-perception of voice problem, reporting the existence of the problem less than group PSQ.

For QLQV the PCQ had lower scores than PSQ, which means that the possible voice alterations interfere with the life quality of individuals. The physical domain was the most compromise to the PCQ.

Emotional symptoms were more frequently reported by PCQ in both questionnaires for this review, the TSAI and SRQ. Only the TSAI State was statistically significant, which exposes a picture of anxiety at the time of application of research.

The PCQ showed vocal handicap index higher than the PSQ, especially in the organic domain.

Table 3 presents the occurrence of signs and emotional and vocal symptoms in both groups studied.

Table 3 – Occurrence of signs and vocal and emotional symptoms in teachers with and without complaints

Computance	PCQ		PSQ		
Symptoms	N	%	N	%	- Significance
Vocal					
problem for singing acute	17	77.3	4	18.2	0.0002
dry throat	17	77.3	4	18.2	0.0002
Sour taste in mouth	12	54.5	3	13.6	0.01
hoarseness	11	50	1	4.5	0.001
Tired voice	11	50	0	0	0.0003
Problem to speak low	11	50	0	0	0.0003
Problem to project the voice	11	50	1	4.5	0.0005
hawk	11	50	1	4.5	0.001
Discomfort when talking	11	50	0	0	0.0002
Effort to speak	9	40.9	2	9.1	0.02
monotone voice	8	36.4	1	4.5	0.009
Instability in the voice	6	27.3	0	0	0.01
Emotional					
Headache	14	63.6	4	18.2	0.002
indigestion	14	63.4	3	13.6	0.0008
Unpleasant sensations in the stomach	11	50	4	18.2	0.03
Lack of appetite	7	31.8	1	4.5	0.02

Mann Whitney statistical test

The vocal and emotional symptoms were prevalent in the group PCQ. Problems to sing sharp, dry throat and acid taste in the mouth were the most frequently cited among the vocal symptoms; and headache, indigestion and unpleasant sensations in the stomach were among the emotional signs.

Some symptoms addressed in the questionnaires with the focus on emotion might relate to the symptoms of the protocols aimed at voice, it is the case of poor digestion with sour taste in the mouth, suggesting poor eating habits and/or changes in the stomach. Thus, certain emotional symptoms may have direct interference in vocal production.

Table 4 presents the data regarding the auditoryperceptual evaluation of study participants.

Table 4 - Mean and standard deviation of the voice's auditory-perceptual evaluation of teachers with and without complaints

_	PCQ		F		
Variables	Mean	Standard deviation	Mean	Standard deviation	Significance
GD- EAV/É/	51	± 4.1	41.4	± 2.4	<0.0001
R-EAV /É/	50.5	± 8	39.2	± 6.7	< 0.00005
B-EAV /É/	42.5	± 11	35.1	± 12.4	< 0.05
T-EAV /É/	49.2	± 9.5	34	± 13.5	0.0001
I-EAV /É/	51.2	± 9.8	37.5	± 12.2	0.0007
GD- EAV Speech	42.6	± 10.4	37	± 5	0.01
R- EAV Speech	39.2	± 16.4	31	± 14.8	0.05
I-EAV speech	34.8	± 20	24	± 14.7	0.04

Caption: GD-General Degree, R - roughness; B - Breathiness, T-Tension;-I instability. Mann Whitney statistical test

The PCQ exhibited moderate intensity of vocal deviation, in the overall degree for emission of vowel $/\epsilon$ / and speech. The PSQ also had vocal deviation of mild intensity.

The PSQ group has higher roughness, breathiness, strain and instability than the expected for unchanged voices, while the PSQ, only the roughness and instability parameters were found higher than the expected for adapted voices.

In general, the voices from the group PCQ were more altered in all parameters, compared to the PSQ.

DISCUSSION

The disciplines that make up the humanities were predominantly taught by teachers who had vocal complaints. It is believed that these disciplines are generally those with more theoretical content, implying almost always in lectures, increasing vocal demand by teachers, a fact that can maximize the risk of developing some vocal problem.

Schools generally do not offer favorable conditions for the development of teachers' work. These schools had no concern with the vocal health of teachers, lacking a prevention program of vocal disorders or a vocal conservation/promotion program. Including almost all teachers reported that the classrooms had unfavorable acoustic due to the presence of internal and external noise.

The noise shows up as a competitor to the teacher's voice in the classroom, which forces to increase the vocal intensity to be heard by the students, which can generate a vocal overload which subsequently can lead to the development of tissue and/or muscle changes in the larynx. The environmental noise can still be a triggering factor

of stress for teachers at work with several physiological changes, such as cardiovascular, intestinal and emotional16.

In a recent research¹⁷, 75% of teachers considered noisy where are located the rooms in which they minister disciplines. They reported that environmental noise caused 79.2% need to speak out loud, which often happens to 73.7% of teachers. and 37.5% had hoarseness after classes and 29.2% hawking.

The number of vocal symptoms was used as the criterion for inclusion in the group of teachers with voice complaints (PCQ) and teachers without vocal complaints (PSQ). The PCQ expressed feeling at the present time, a number equal to or greater than three symptoms, this number may be indicative of a change already installed, so it was considered a worrying number, analyzing that this professional depends essentially on their voice to perform its function; while the PSQ had less of one vocal symptom.

In research with teachers and non-teachers conducted in the United States¹⁰ was found a number of 4.3 vocal signs and symptoms and those non-teachers mean of 3.1. In Brazil, a similar study¹¹ revealed a number of 3.5 signs and vocal symptoms and those non-teachers^{1,7}.

In a recent study¹⁸ was compared the impact of vocal loss between teachers and non-teachers, the latter being those more concerned with a possible loss of this function, assigning the same value to the impact of inability to get around (not walking), exposing concerns of these professionals regarding their voice. Besides limiting the professional lives of teachers, the voice also has implications for the social and emotional relationships, once it enables to communicate, express ideas and interact with the environment in which it is inserted.

The domain LQVQ related to physical functioning was significantly more compromised in PCQ, agreeing with the number of vocal symptoms. This result is similar in some studies³ demonstrating that physical symptoms such as "vocal fatigue" cause a greater impact on life quality of individuals, therefore being more noticeable. The PCQ demonstrated inability to perform its function because of voice. The scores for the PSQ showed a good relationship between voice and life quality of this group.

The feeling that the air ends fast during emission may show the bad glottal closure. The presence of a glottal gap increases the transglottic airflow compromising the vibration of the vocal folds, a fact that reflects in short emissions with greater effort and frequent episodes of refilling air during speech.

Another comparison to be highlighted is the VHI values, where PCQ scores indicate that the voice handicap has interference in everyday situations, which happens less for PSQ. The organic VHI may suggest a change in the structures responsible for voice production and may be compromised in PCQ. Some symptoms, such as "effort to speak" and "force to voice out" reinforce a difficulty in glottal closure, suggesting the presence of a mass lesion or inadequate muscle adjust, causing a defect in the closure of the vocal folds, and thus requiring a greater effort to get putting them in vibration9.

Despite the vocal self-assessment questionnaires suggest impairment of the voices of PCQ, this group has no perception of such a limitation, not admitting there being a problem in their voice; making this professional not to look a specialist to adjust the voice to your demand, continuing to make vocals efforts and aggravating the change. This fact suggests that many teachers think they have a shifted/changed voice is an inherent feature of their profession.

The SRQ notes the degree of emotional commitment (stress, anxiety and depression), being more committed those who claim to feel six or more symptoms exposed in the questionnaire. The PCQ showed greater degree of emotional commitment, pointing a result to that expected for people with emotional restrictions. The PSQ have no emotional commitment. This fact is confirmed in the state TSAI scores, which show that the PCQ have emotional commitment over than that expected for anxious people (above 41)8,14.

The occurrence of signs and vocal and emotional symptoms in teachers with and without complaints is shown in Table 3. From this we note a large number of reported vocal symptoms of PCQ compared to PSQ.

The symptom "throat ache" and "dry mouth" was prevalent among teachers, both in past and present. Lack of hydration during classes can lead to dry throat, highlighting the lack of basic care with the voice, as well as increased transglottic airflow can also lead to this feeling. This symptom was also featured in another study with itchy throat and vocal fatigue¹⁹. In another survey, most of them state to feel dry/scraping throat (26 teachers - 61.90%)²⁰.

Other symptoms highlighted in Table 3 are: problems to speak low, to project the voice, singing acute and monotone voice, which indicates difficulty of teachers in flexible the voice, change the frequency and the tone. The prevalence of the symptom sour taste in the mouth, interrogated in the QSVS, may indicate the presence of laryngopharyngeal reflux. This is a result of poor dietary habits and changes in the stomach, a fact that confirms the SRQ data, the symptom of indigestion. The change in stomach may be the gastritis, which, among other factors, has the emotional one as the cause. Nervousness, stress and anxiety can develop stomach gastritis. Stress causes a stimulation of the production of hydrochloric acid which corrodes the stomach wall and may also affect the vocal folds²¹, further confirming on more evidence of the presence of emotional changes in teachers surveyed. One study concluded that GERD may be associated with the change of the epithelium of the larynx posterior wall, as well as with inflammatory histologic changes in this region²², structure responsible for the voice production.

Overall, it was analyzed that the highest levels of emotional commitment were observed in the group of teachers with voice complaints. Professionals who reported more vocal symptoms in QSVC (Table 3), and lower life quality in voice and a greater vocal handicap (Table 2) are those who obtained higher scores on the questionnaires related to emotion, both the SRQ and TSAI-State.

In vowel emission, the voices appeared most altered comparing them with the speech (counting) in the rating scale. The vowel evaluation provides predominantly data from glottal source, while speech has a higher share of supraglottic adjustments, filter.

From the auditory-perceptual analysis could be perceived a moderated vocal deviation for PCQ in the evaluation of vowel /ε/, which can interfere with the efficiency of their work and, if not careful, this change may rise, compromising its stay in that function. Thus, it emphasizes the importance of these professionals maintain healthy vocal habits. taking care and looking for some experts, to perform minimum voice conditioning for professional vocal use.

According to the data in Table 4, it is noticed that the PCQ had voices with presence of roughness, breathiness and tension. It is known that the roughness is the most common vocal manifestation, occurring in irregular vibration of the vocal fods⁹. In addition, the voices of teachers also showed breathiness, with moderate intensity of vocal deviation.

In the tension, there is activity of the suprahyoid muscles, which can simultaneously elevate the larynx and cause the sound to be produced at a more acute frequency with vocal projection and reduced effort in the laryngopharyngeal region. The repeated use of this pattern may result in the development of a mass lesion by inappropriate behavior and voice pattern. Thus, the tension generated by the anxiety can lead to changes in the vocal tract, overloading the resonance and potentially triggering a process of vocal change⁸.

Through the auditory-perceptual analysis, it was inferred that the PCQ group presented a considerable vocal deviation, which reflects on their life quality, as highlighted in the vocal self-assessment questionnaires. These data demonstrate a relationship between vocal and emotional problems, especially anxiety. The most changed voices emanated from subjects considered more anxious. Thus, there is a need for further investigation of the relationship between these factors, once it was not possible

to infer if the factor anxiety is the cause of vocal disorder or the reverse relationship is also true.

It is important to mention that the Paraíba does not have a law to regulate and/or enable the creation of a Vocal health program that can protect the communication of teachers of the state, as it is the case in some states and municipalities in Brazil that already have it²³. It is known that such initiatives may, in addition to improving the health of their workers, foster the relationship between teacher and student, as well as facilitating the learning process, considering that the voice is the main teacher instrument for the knowledge transmission transmission.

CONCLUSION

Teachers considered with vocal complaints have greater emotional and vocal commitment compared to teachers who have no vocal complaints, a fact which indicates the existence of interference of emotions in the development and/or maintenance of voice disorders. This fact is reflected in the number of reported complaints and compromised life quality of these professionals. Thus, we highlight the importance of vocal health program for teachers, so that they have knowledge about the voice and start to maintain vocal health care, avoiding future problems that may culminate in the compromised life quality and absence from work.

RESUMO

Objetivo: analisar a interferência dos fatores de riscos e emocionais na voz de professores com e sem queixa. Método: a amostra foi composta de 44 professores. Utilizou-se uma ficha com dados pessoais e profissionais, três questionários referentes aos aspectos vocais e dois questionários para dados relacionados à emoção, sobretudo ansiedade, além da coleta de voz para análise perceptivo--auditiva. Os grupos foram divididos a partir do número de sintomas relatados, estabelecendo um número de 22 voluntários no grupo de Professores Sem Queixa (PSQ) e 22 no grupo Professores Com Queixas (PCQ), sendo deste grupo, os indivíduos que relataram mais de três sintomas vocais. Os dados foram analisados estatisticamente. Resultados: a média do número de sintomas descritos no QSSV foi de 5,7 (±2,8) para os PCQ e de 0,8 (±0,9) para os PSQ. Os PSQ referiram uma melhor autoavaliação vocal (p= 0,01) e os PCQ afirmaram possuir um maior comprometimento em sua voz (p= 0,001). O grupo PSQ obteve os maiores valores nos escores do QVV-Físico (p=0,0007) e QVV-Total (p=0,0006). Os PCQ obtiveram maiores valores no IDV-Total (p=0,0003) e IDV-Orgânico (p=0,0006), e um maior comprometimento emocional, com SRQ de 5,7 (±3,9) e IDATE 42,5 (±12,7). A partir da avaliação perceptivo-auditiva, os PCQ apresentaram um desvio vocal moderado com presença de rugosidade, soprosidade e tensão na voz, enquanto os PSQ evidenciam um desvio leve em todos os parâmetros. Conclusão: os professores com queixas vocais estão expostos a mais fatores de riscos, além de relatarem mais sintomas e comprometimento vocais, bem como emocionais.

DESCRITORES: Docentes; Voz; Ansiedade; Emoções; Comunicação; Fonoaudiologia

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