VOCAL HEALTH AND ITS IMPACT IN THE QUALITY OF LIFE OF COLLEGE STUDENTS

Saúde vocal e o impacto na qualidade de vida de estudantes universitários

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ABSTRACT

Purpose: to evaluate the impact of voice in the quality of life and to know the personal care related to vocal health among college students, and to relate quality of life and vocal care. **Methods**: it is about a cross-sectional research, with applications of the protocol Voice-Related Quality of Life Measure and a questionnaire to understand the concepts related to voice on 56 students who participated of an educational intervention. **Results**: the average of scores was of medium impact for the physical (72,45) and global (77,4) domains, low impact for the socioemotional (85) domain. With regard to vocal health care, they were characterized as common sense knowledge, concentrating on physiology of the vocal folds. There was no statistical difference in the impact of voice on quality of life among students who lectured and those who just studied. **Conclusion**: the study showed that the students do not have great problems with the impact of the voice in their quality of life. During the course of the graduation, does not possess enough knowledge related to voice care, making it fundamental to approach this subject in the professional formation. It is necessary fomenting a self-care and critical thinking awareness process concerning the work conditions imposed by the professor.

KEYWORDS: Quality of Life; Voice; Health Promotion; Students

INTRODUCTION

Currently, definitions of disease based on biological elements/factors cannot explain health-disease processes. Conditions in which there is strong urbanization, exploitation and precariousness of employment bonds and social exclusion experienced in developing countries such as Brazil require a broader analysis of disease processes. It is urgent to understand the individual and community inserted in a particular mode of production, economic model and social reproduction processes[1].

The health production process must be centered on the individual, comprising health as a social phenomenon, and that a healthy individual must have "sense of safety to live life, to create values and establish vital standards from his/her desires, interests, and from individual needs and social environment"[2]. Therefore, produce health should contribute to increased autonomy of individuals and groups to live life.

In this sense, the understanding of Quality of Life as an individual's perception of his/her position in life, in the context of culture and system of values in which he/she lives and in relation to his/her goals, expectations, standards and concerns[3], brings this broader view of health not only as absence of diseases. In the area of voice, studies that address self-perception of quality of life use instruments that seek to capture the individual's perception of his/her own voice and connection with the work, which provides vital information that contribute to the understanding of vocal consciousness. The Voice-Related Quality of Life Protocol stands out for addressing the issue covering various domains as well as being sensitive to changes made by programs promoting vocal health[4].

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The voice as a fundamental element of the teaching activity constitutes a link among teachers, students and knowledge through explanations, dialogues, questions and reflections, demonstrating its social role in the construction of knowledge. Being an important communication resource used by teachers for their interaction in the classroom, maintaining vocal health is critical so that the process of teaching and learning suffers no interference of disorders related to voice [5].

In Brazil, more attention to teachers' vocal health is given only in recent years, when the impact on quality of life and costs related to educational services such as absence periods, functional re-adaptations and sick leave periods, causing social repercussions[6]. The occupational context of teachers coupled with poor working conditions enables the emergence and worsening of vocal pathologies. This fact affects quality of life for the delay in the recovery process, or in extreme cases the alternative is the functional re-adaptation[7]. Precariousness in teachers' working conditions causes high overall wear of health, and contradicts the idea of teachers as creative beings and transformers with potential for broad development of skills in students[8].

The pressures of systems and organization of the teaching work require high productivity, multifunctions, more students in the classroom and intense hours of work, causing a scenario of physical and mental fatigue that jeopardizes the willingness to work and labor productivity. By linking job stress and voice disorder positive associations were found. In a situation of high exigency and demand with low job control, the professional is more prone to physical and mental adversity[8].

The university presents itself as a privileged *locus* for the development of educational activities on health, thus enabling not only apprehension of new professional skills, but being configured as a space of broad potential for the protection of health and promotion of well-being[9]. However, actions promoting vocal health are not configured as a thematic present in the curricula of licentiate degree courses.

Studies show the importance of adoption of vocal health promotion in teachers' educational background before starting work in the classroom [10-12]. Such interventions have a high potential to raise awareness on the subject, provide means for a healthy voice, and to support students, who already have vocal problems, in improving their acoustic parameters[12]. This theme has great relevance in teachers' educational background because the presence of vocal symptoms in students increases the risk of voice disorders during their professional careers[13].

Thus, this study aims to evaluate the impact of voice on quality of life and be familiar with personal care related to vocal health among college students, and correlate quality of life and vocal care.

METHODS

It is a cross-sectional study of quantitative and qualitative approach, approved by the Ethics Committee of the Federal University of São Paulo under No 226.652, according to the terms of CONEP Resolution 196/96. All participants signed the Informed Consent Form.

Subjects of this study were 56 college students in licentiate degree courses of Pedagogy, Arts & Humanities, History, History of Art, Philosophy and Social Sciences at a public university, who voluntarily enrolled in vocal health workshops and met the following inclusion criteria: be a graduate student at a university, be enrolled in licentiate degree courses, and have completely filled in data collection instruments at the beginning of the workshops.

The age group was between 19 and 56 years old, demonstrating the population heterogeneity concerning social insertion and professional experience prior to entering the university. Among individuals studied, 32% were already teaching at that time, which makes this health promotion approach even more relevant.

The methodological resource used for data collection was a semi-structured questionnaire with questions relating to the characterization of the subjects, lifestyles, vocal self-evaluation, teacher-voice ratio, knowledge of students about caring for voice, and application of Voice-Related Quality of Life Protocol (*QVV*). The *QVV* domains have values ranging from zero to one hundred after application of standard algorithm, and values closer to zero are considered worse while those closer to one hundred are better.

The *QVV* has been widely used in research wishing to correlate quality of life to voice, being adapted and translated into Portuguese from the Voice-Related Quality of Life Measure tool (V-RQOL)[4]. The instrument analyzes the impact of voice on quality of life of individuals according to 10 items in three domains: socio-emotional, physical and global.

To be familiar with personal care related to vocal health, the following questions were made: "In your daily routine, what you have been doing to take care of your voice?". The analysis of transcribed materials allowed the identification of core themes related to the perception of students regarding vocal

health. WebQDA software was used to assist in the analysis of qualitative data. Presence of vocal care, student statements making reference to any intentional action towards maintaining vocal health, even if it was based on common sense, were considered. The lack of care was considered when the student stated that he/she did nothing intentionally related to vocal health.

Treatment of *QVV* results was made by means of storage in a spreadsheet, and the analysis through R 3. 1. 1 statistical program. For the verification of statistically significant differences in QVV ratio of care vocals to areas, the Fligner-Policello median test was used for global and socioemotional domains, while the Wilcoxon-Mann-Whitney test was used for the physical domain and for verifying a statistically significant difference between a student performance as a teacher and voice-related quality of life. The level of significance considered was $p \leq 0.05$.

RESULTS

The average *QVV* domains (global, socio-emotional and physical) of students are presented in Table 1. The average of score values can be considered as having medium impact on physical and global domains, low impact on socio-emotional domain, demonstrating that students do not have big problems with voice impact on their quality of life.

Table 1 – Description of the scores of Voice-Related Quality of Life Protocol, according to global, social-emotional and physical domain. São Paulo - SP, 2014

Domains	n	Minimum	Median	Maximum
Global	56	27,5	77,41	100
Social-emotional	56	37,5	85	100
Physical	56	20,85	72,45	100

Mean scores of *QVV* domains for students, and among these those who already work as a teacher, are shown in Figure 1. The average score of the global domain for the two groups was 82.5. For socio-emotional and physical domains the values were 93.75 and 79.15, respectively, for students who were teaching at that time. Among those who were studying only, the figures were 87.5 and 72.91. The results show that, in general, there was no statistical difference of voice impact on quality of life between the two groups.

Table 2 shows the distribution of statements in absolute frequencies. Vocal health care, as protective measures, is mostly common sense knowledge of individual sphere, focused on physiology actions of vocal folds. The most mentioned was the lack of intentional voice care (34.66%), followed by water intake (32%). Interventions coordinated with the working environment were incipient and there was no reference to work organization and educational strategies for the preservation of vocal health.

The *QVV* average ratio of the domains (global, socio-emotional and physical) to the answers of statements about vocal care is described in Figure 2. The average of score in the global domain was 83.75 in the presence of care, and 81.25 in the absence. For socio-emotional and physical domains the values were 93.75 and 77.08 when care was present, and 90.62 and 75 for the lack of care, respectively. It was found that there was no statistically significant difference between students who intentionally had some care and those who did nothing.

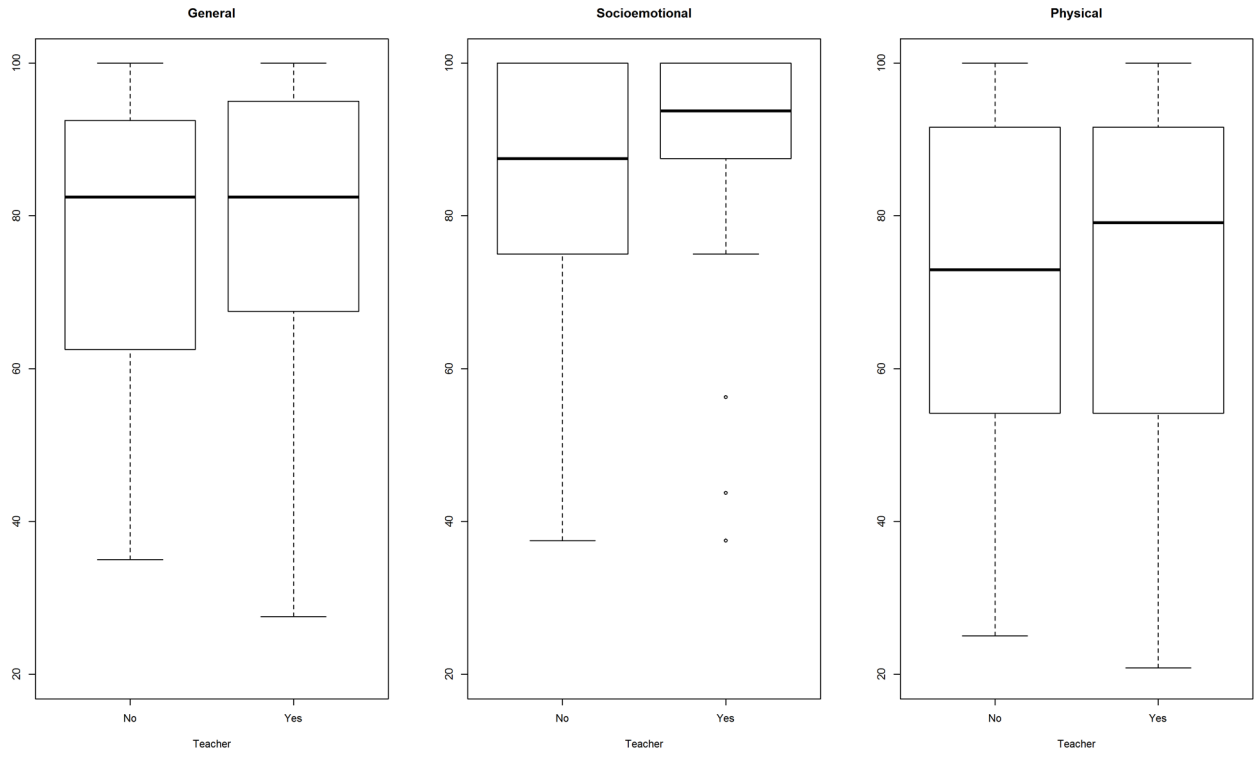

Figure 1 – Analysis of the average scores of students and those who act as teachers to the domains (global, social-emotional and physical) Voice-Related Quality of Life Protocol. São Paulo - SP, 2014

Table 2 – Distribution of testimonials and their frequencies by thematic core. São Paulo - SP, 2014

Characterization of the speeches	Absolute frequency	%
Drink water regularly; moisten the throat; drink plenty of water	24	32
Avoid speaking loudly and forcing the voice	13	17,33
Nothing makes	26	34,66
Any gargling	1	1,33
Drink water and eat apples	2	2,66
Adjustable air conditioning and fan; avoid cold weather and rain; environmental pollution	1	1,33
Take a deep breath and do vocal exercises	3	4
Keep the airways free	1	1,33
Cough and clear his throat	1	1,33
Avoid alcohol and smoking	1	1,33
Take refreshing tablets	1	1,33
Total	75	100

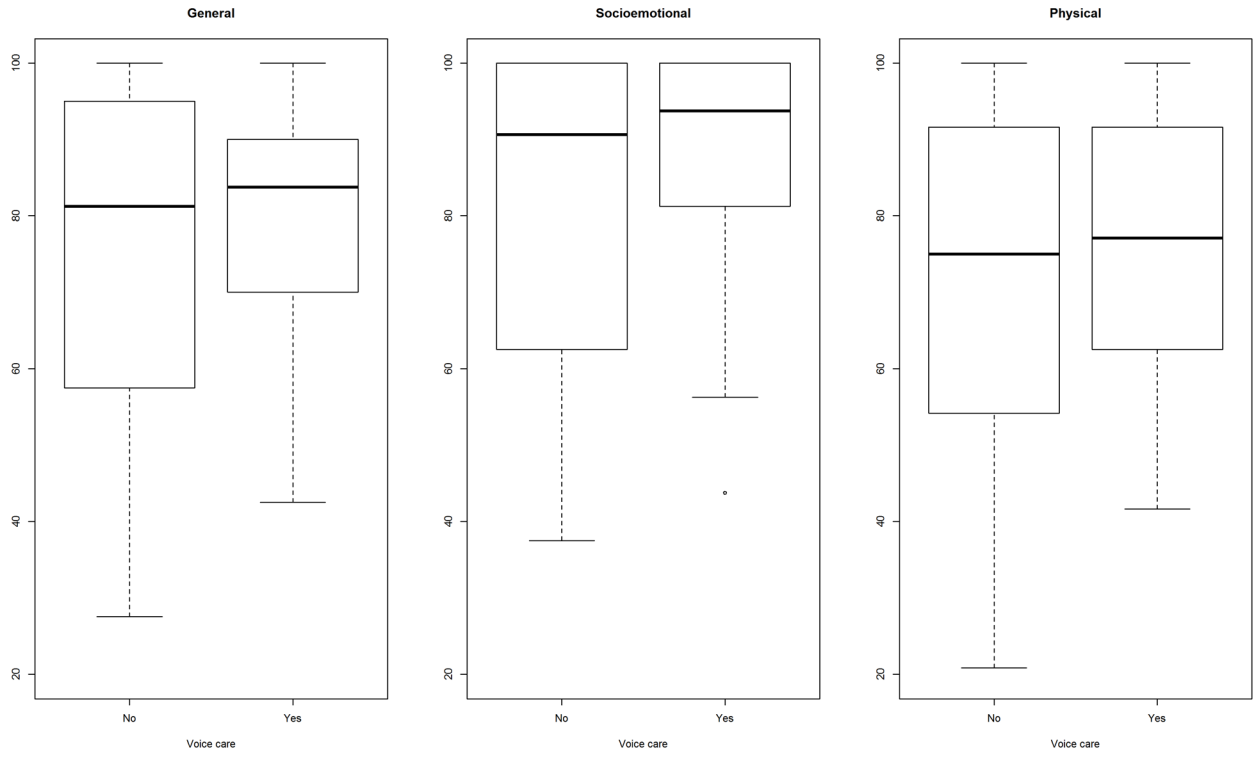

Figure 2 – Relationship between the average of the Voice-Related Quality of Life Protocol domains and vocal care reported by students. São Paulo - SP, 2014

DISCUSSION

Similar results were found in studies of college students, with 92.2 score in the socio-emotional domain, and 93.6 in the physical domain[14] and vocal self-perception within normality parameters[15]. Positive scores as those found in these studies may indicate the low awareness of the problem, mainly for being teachers in training who are not familiar nor aware of the need for voice care, which can mask real difficulties of participants to perceive and evaluate their voices[16] or actually can indicate that there is no presence of voice disorders affecting quality of life.

Studies with public school teachers also found similar results, with an average of 82 points in the global domain, 88.7 in socio-emotional and 77.6 in the physical domain[17]. In a study with 2,133 teachers, *QLV* results with scores of 84.2 in the global domain, 79.4 in the physical domain, and 90.6 in socio-emotional were correlated with variables related to work organization, showing that the environment, work organization and relationship with students had strong correlation with a worse assessment of quality of life, which shows the need to shift the focus of preventive actions to the collective sphere, with emphasis on the current conditions of teaching work[18]. A systematic review on the subject showed that the physical domain was the one that impacted more negatively on quality of life of teachers[19], a result also found in this study.

Research having college students and teachers as population shows high scores of *QVV*, which may be associated to the absence of the theme in the curricula of undergraduate courses and teachers' continuing education and health promotion programs. One ventures to assert that the problem is subsumed in reality, not socialized or shared as a need that requires collective actions.

It was evidenced that 34.66% of participants were not even aware of the needs for voice care, lacking the introduction of basic care in the educational approach. There was no mention of effective actions relating the political organization of work, stress and voice quality. The approach to the issue stands out in behavioral and individual actions of students, a fact also demonstrated in a study with students of the Pedagogy course[20]. On the edge of interpretation, the speeches show that vocal health is not even incorporated as a practice and policy in the planning process, organization and evaluation in the teaching-learning process. In this sense, the assumption that isolated and particular actions of each person are consequences of their awareness

and acceptance that the problem exists, although they do not envisage other political alternatives, is strengthened[21].

In some answers of students, care regarding vocal health mingled with ways of coping with vocal complaints, showing the lack of education of students to deal with the problem. In the presence of any vocal discomfort, students resort to vocal rest or household measures to alleviate the symptoms. A research of university professors showed that in the presence of vocal discomfort professionals turn to hydration or vocal rest, having a low frequency to search for a speech therapist monitoring of the problem[22].

A study with teachers from a municipal education network showed that professionals have difficulties in identifying some symptoms related to voice disorders as problems, such as cough, gagging, voicing interruption and phonation instability. The author attributes this to the perception of the teacher's work as priesthood, covered of meanings that require dedication, availability, suffering and giving. In view of the burden of commitments, lack of time for a reflection on the teaching work and quality of life, care for their own health and a more critical role before the current working conditions imposed on teachers[5].

In this study there was no statistical difference in the self-perception of quality of life related to voice between students already working as teachers at that time and those studying only. However, a study with college students having a more significant sample showed that in the same age group students working in occupations with high vocal demand had more vocal complaints when compared to those studying only[14].

So that preventive actions in vocal health are present from the educational background of teachers, it is necessary that teachers' health-related legislation is consistent with the profession health needs. However, a survey of Brazilian legislation on the subject has shown that the laws are aimed at rehabilitation actions with a focus on medical and speech therapist consultations, thus a traditionally curative practice prevails to the detriment of actions that prioritize health as well-being[23].

The discussion on quality of life and vocal health demands the understanding of health determining factors. Such elements have a strong influence on health as well-being and dialogue with health promotion as a theoretical ground for the development of actions that can intervene favorably in quality of life[24,25]. In this sense, an understanding transcends that attitudinal and behavioral issues of the individual in relation to health alone will guarantee a better quality of life. This situation requires the articulation of actions of the State, community, individual and inter-sectoral partnerships so that health is understood in its entirety[24].

The university plays an important role in the introduction of this topic since the student is motivated to absorb the information that will have a positive impact throughout his professional career. However, the approach should allow the student to realize vocal health as part of the teacher's work process, which transcends hygiene attitudes that individualize care, being the sole responsibility of the subject.

Vocal health actions in the perspective of health promotion should address new forms of teaching work organization and innovative teaching-learning strategies, so that voice care is solved based on practical and political actions in the routine of teachers and that make sense, de-characterizing vocal health as another obligation inherent in the profession.

CONCLUSION

The study showed that vocal health has a low impact on quality of life of students in the socio-emotional domain, and medium impact on physical and global domains. Vocal health care reported by students is focused on the individual and depend on the personal initiative for the problem perception, in view of a reality that hides the roots of the matter.

It can be shown that students during graduation do not have sufficient knowledge regarding voice care, which makes these actions fundamental during educational background. This study pointed out the need to foster an awareness process of self-care among students in licentiate degree courses and to encourage thoughts on working conditions imposed.

The study extended knowledge on the area of vocal health of teachers in training. Research of this nature make it possible to act in a preventive and focused way on what really matters to students by listening to their demands and needs. Curricula of universities require greater attention to this issue, expanding the political perspective in teachers' education far beyond technical and educational issues to work in the classroom.

RESUMO

Objetivo: avaliar o impacto da voz na qualidade de vida e conhecer os cuidados pessoais relacionados à saúde vocal entre estudantes universitários, e, relacionar qualidade de vida e cuidados vocais. **Métodos:** trata-se de um estudo transversal, com aplicação do protocolo Qualidade de Vida e Voz e um questionário para conhecer os cuidados relacionados à voz em 56 estudantes que participaram de uma intervenção educativa. **Resultados:** a média dos escores do protocolo foi de médio impacto para os domínios físico (72,45) e global (77,4), baixo impacto para o domínio socioemocional (85). Em relação aos cuidados com a saúde vocal, caracterizaram-se como saberes de senso comum, concentrados em ações da fisiologia das pregas vocais. Não houve diferença estatística do impacto da voz na qualidade de vida entre os estudantes que lecionavam e aqueles que apenas estudavam. **Conclusão:** o estudo evidenciou que os estudantes não têm grandes problemas com o impacto da voz na sua qualidade de vida. O estudante durante a graduação não dispõe de conhecimentos suficientes em relação aos cuidados com a voz, o que torna fundamental abordar esse tema na formação profissional. Percebeu-se a necessidade de fomentar um processo de conscientização do autocuidado e de reflexões críticas acerca das condições laborais impostas ao professor.

DESCRITORES: Qualidade de Vida; Voz; Promoção da Saúde; Estudantes

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