

The shyness and vocal handicap in professional voice users

A timidez e desvantagem vocal em profissionais da voz

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ABSTRACT

Purpose: to investigate the influence of self-reported shyness on the noticed vocal handicap, according to the presence or absence of a vocal complaint, in professional voice users. **Methods:** two hundred and eight professional voice users (mean age 36 years), among them: singers, actors, lawyers, announcers, newscasters, speakers, teachers and salespeople, with or without vocal complaint, answered an online questionnaire, which had a personal identification card, the Vocal Handicap Index - VHI-10, and the Shyness Scale. **Results:** of the 208 voice professionals, 28% presented vocal handicap, which about 60% of that are shy; more than 70% had no vocal handicap, and of these, only 26% were shy. From that, it is concluded that shy professional voice users failed more in VHI-10 than non-shy. Among professional voice users who presented vocal handicap, 66% had vocal complaints, while 34% did not complain. Of the participants with vocal handicaps and complaints, 54% were shy and 46% were not shy, with no statistical difference between these two groups. Among those with a vocal handicap, however without vocal complaints, 70% were shy and 30% were not shy, having a statistical difference between them. **Conclusion:** shyness may be a confounding factor for the perception of vocal handicap, which shows that professional voice users may fail in a self-reported voice assessment test because of shyness rather than a voice disorder itself.

Keywords: Voice; Shyness; Communication; Dysphonia; Voice quality; Self evaluation

RESUMO

Objetivo: investigar a influência da timidez autorreferida na desvantagem vocal percebida, de acordo com a presença ou ausência de queixa vocal, em profissionais da voz. **Métodos:** duzentos e oito profissionais da voz (média de 36 anos, desvio padrão: 11,5), entre cantores, atores, advogados, locutores, telejornalistas, palestrantes, professores e vendedores, com ou sem queixa vocal, responderam a um questionário *on-line* que continha uma ficha de identificação pessoal, o Índice de Desvantagem Vocal - IDV-10 e a Escala de Timidez Cheek & Buss. **Resultados:** dos 208 profissionais da voz, 28% apresentaram desvantagem vocal, sendo que cerca de 60% destes eram tímidos; mais de 70% não apresentaram desvantagem vocal e destes, apenas 26% eram tímidos. Sendo assim, profissionais da voz tímidos falharam mais no IDV-10 do que os não tímidos. Entre os profissionais da voz que apresentaram desvantagem vocal, 66% tinham queixa vocal, enquanto 34% não apresentaram queixa. Dos sujeitos com desvantagem e queixa vocal, 54% eram tímidos e 46% não tímidos, sem diferença estatística entre estes dois grupos. Já entre os sujeitos com desvantagem, porém sem queixa vocal, 70% eram tímidos, e 30% não tímidos, havendo diferença entre eles. **Conclusão:** a timidez pode ser um fator de confundimento para percepção de desvantagem vocal, o que indica que profissionais da voz podem falhar em um teste de autoavaliação vocal em decorrência da timidez e não de um distúrbio de voz, propriamente dito.

Palavras-chave: Voz; Timidez; Comunicação; Disfonia; Qualidade vocal; Autoavaliação

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INTRODUCTION

Shyness is defined as discomfort and inhibition in situations of interpersonal interaction, caused by the expectation of possible negative consequences, an expectation that harms the individual in achieving his personal or professional goals^{1,2}. It is common to observe that shy people have little vocal projection and use a closed articulation pattern³. Shy people usually report that they often have difficulty being heard and understood. Thus, communication problems can often be related to shyness^{3,4}.

We knew that vocal demand is a highly individualized characteristic based on the social and professional use of each individual with his or her voice. In some professions, the voice is essential for effective communication and can be considered as a tool to make work feasible⁵. The term “voice professional” is for those people who use the voice continuously and seek, through an elaborate way of expression, to reach a specific audience⁵, such as the announcers who use the well-designed and articulated voice to communicate to the listeners, or such as teachers who need a modulated voice to keep students’ attention. Depending on their professional activity, working conditions, interference at the biological, environmental, and emotional level, these professionals who have increased attention and dependence on the voice, face vocal damage and, consequently, communication⁵.

The vocal handicap can be observed both by dysphonic individuals with laryngeal changes and by individuals who are not satisfied with their voices. The Voice Handicap Index⁶ translated and validated into Portuguese as Índice de Desvantagem Vocal – IDV⁷ was the first specific protocol developed to assess the self-perception of the impact of vocal changes. Its reduced version called IDV-10 was originally developed in English⁸ and subsequently validated in several languages, including Brazilian Portuguese⁹. When the IDV-10 is used for vocal screening, the cut-off score that indicates failure and the consequent need for complete vocal assessment is 7 points¹⁰.

Even being considered a highly consistent tool to be used in screening for the perception of vocal handicap associated with a voice problem^{6,11}, we observed that there is a possibility that certain individuals indicate a vocal handicap when evaluated with the IDV-10 but without complaining or changing the voice. Therefore, we sought to identify the factor that could lead these individuals to self-perceived some vocal impairment, when in fact there is nothing that indicates a change in their voice.

Recently, the results of a Brazilian survey showed that shyness harms the self-perception of vocal handicap in the general population. Shy individuals also tend to fail in vocal screening when using IDV-10¹². Voice professionals have a dependent relationship with their voice so vocal changes have a much greater impact on this population, with consequences that directly influence their professional and social life¹³.

With this information, the objective of this study was to investigate the impact of self-reported shyness with the presence or absence of vocal complaints in voice professionals with a perceived vocal handicap.

METHODS

This is a cross-sectional, observational, and quantitative study. Research Ethics Committee of Hospital São Francisco Sociedade Empresarial Limitada approved the research

(opinion 132.243 and CAAE: 63179916.6.0000.8071, in 2016). All participants signed the Free and Informed Consent Form (Resolution MS/CNS/CNEP n° 466/12).

For inclusion criteria in the study were the voice professionals regardless of their profession: singers, actors, announcers, lawyers, teachers, television journalists, dubbing actors, salespeople, speakers, and telemarketers, of both genders, over 18 years old. Speech-language therapists who have already previous knowledge about the voice and non-voice professionals were excluded from the study. The previous speech-language therapy intervention was not considered as an exclusion or inclusion criterion.

Participants answered an online questionnaire through the Survey Monkey platform, sending the link to 687 researchers’ contacts and available on social networks. One-hundred and sixty-one of 369 answers were excluded because 104 were incomplete and 57 did not fit the inclusion criterion, that is, they were not completed by a voice professional over 18 years old. Therefore, the answers of 208 participants were analyzed, in which 116 were women and 92 were men, aged between 18 and 79 years old (mean of 36 years old). The most responding professions were: singers (44%), teachers (30%), and lawyers (7%).

The link sent contained an Identification Form; the Voice Handicap Index Protocol, IDV-10^{8,9}, and Cheek & Buss Shyness Scale¹⁴.

The identification form identified the profession of each participant and the presence or absence of vocal complaints. Through multiple-choice questions, participants answered about their age, gender, and profession. The presence of vocal complaints should be investigated to identify whether it was related to the voice or only to communicative situations.

The IDV-10^{8,9} is a self-assessment instrument with ten questions, valid and reliable to assess the self-perceived vocal handicap and can be used by patients with different types of vocal disorders^{7,8}. Each question must be answered on a 5-point scale, with 0 (zero) corresponding to the option “never” and 4 corresponding to “always”. The total score is calculated by the simple sum of the answers and varies from 0 (zero) to 40 points, with 0 (zero) indicating no vocal handicap and 40 indicating the maximum handicap. The cut-off score, capable of differentiating groups with and without vocal handicap, was defined as 7 points¹⁰, that is, individuals who have scores below 7 points are considered “without self-perceived vocal handicap” and, above this number they were considered “with self-perceived vocal handicap”.

The Cheek & Buss¹⁴ Shyness Scale is an instrument composed of 13 questions related to communicative behavior in different daily situations, assessing the presence of self-reported shyness by the participant, according to the answers. Each question must also be answered on a 5-point scale, with 0 (zero) “totally disagree”, and 4 “totally agree”. The total score is calculated by the simple sum of the answers, varying from 0 (zero) to 52 points, classifying individuals as: “not shy” (between 0 (zero) and 34 points), “slightly shy” (between 35 and 42 points), or “very shy” (above 43 points). At the end of the questionnaire, there is a question regarding the situation of public speaking, which is a filter question, not added in the total score.

We performed descriptive and inferential analyses of the data. In the inferential analysis, we used Pearson’s chi-square tests and the Equality of Proportions Test, adopting a 5% significance level ($p < 0.05$).

RESULTS

Analyzing the scores of the IDV-10 in the different degrees of shyness (“not shy”, “slightly shy” and “very shy”), there was a difference between the “not shy” and the “slightly shy” ($p = 0.0015$) and between “not shy” and “very shy” ($p = 0.0061$). However, there was no difference between “slightly shy” and “very shy” ($p = 0.5632$). Therefore, these two groups were classified as “shy”.

Considering the IDV-10 as a screening tool, 59 (28.4%) of the 208 participants failed, that is, they presented self-perception of vocal handicap, and 149 (71.6%) passed it, that is, they did not present self-perception of vocal handicap. Sixty percent of the individuals who failed IDV-10 were shy; only 26% of those who passed were shy. Table 1 shows that there was an association between “not shy” and “without vocal handicap” and between “shy” and “with vocal handicap”.

Thirty-nine (66%) of the 59 (28%) voice professionals who presented vocal handicap had some complaints related to the voice and 20 (34%) did not present any vocal complaints. Amid the 39 individuals who had vocal handicap and complaints, there was no difference ($p = 0.4799$) between the “shy” (21, 54%) and the “not shy” (18, 46%). Among the 20 participants who presented vocal handicap without voice complaints, there was a difference ($p = 0.0114$) between the “shy” (14, 70%) and the “not shy” (6, 30%) (Figure 1 and Table 2).

Table 1. Numerical and percentage distribution of voice professionals, according to the self-perceived vocal handicap and shyness

Shyness Scale	Vocal handicap				p-value
	With vocal handicap		Without vocal handicap		
	n	%	n	%	
Shy	35	60.0	40	26.0	0.001*
Non-shy	24	40.0	109	74.0	
Total	59	100	149	100	

* $p < 0.05$ – Pearson’s Chi-Square

Subtitle: n = number of individuals; % = percentage of individuals

Table 2. Numerical and percentage distribution of voice professionals with a vocal handicap, according to the presence of complaints

Complaint and Shyness	With voice handicap		p-value
	n	%	
With Complaint			
Shy	21	35.6	0.4799
Non-Shy	18	30.5	
Without Complaint			
Shy	14	23.7	0.0114*
Non-Shy	6	10.2	
Total	59	100	

* $p < 0.05$ – Two Proportions Equality Test

Subtitle: n = number of individuals; % = percentage of individuals

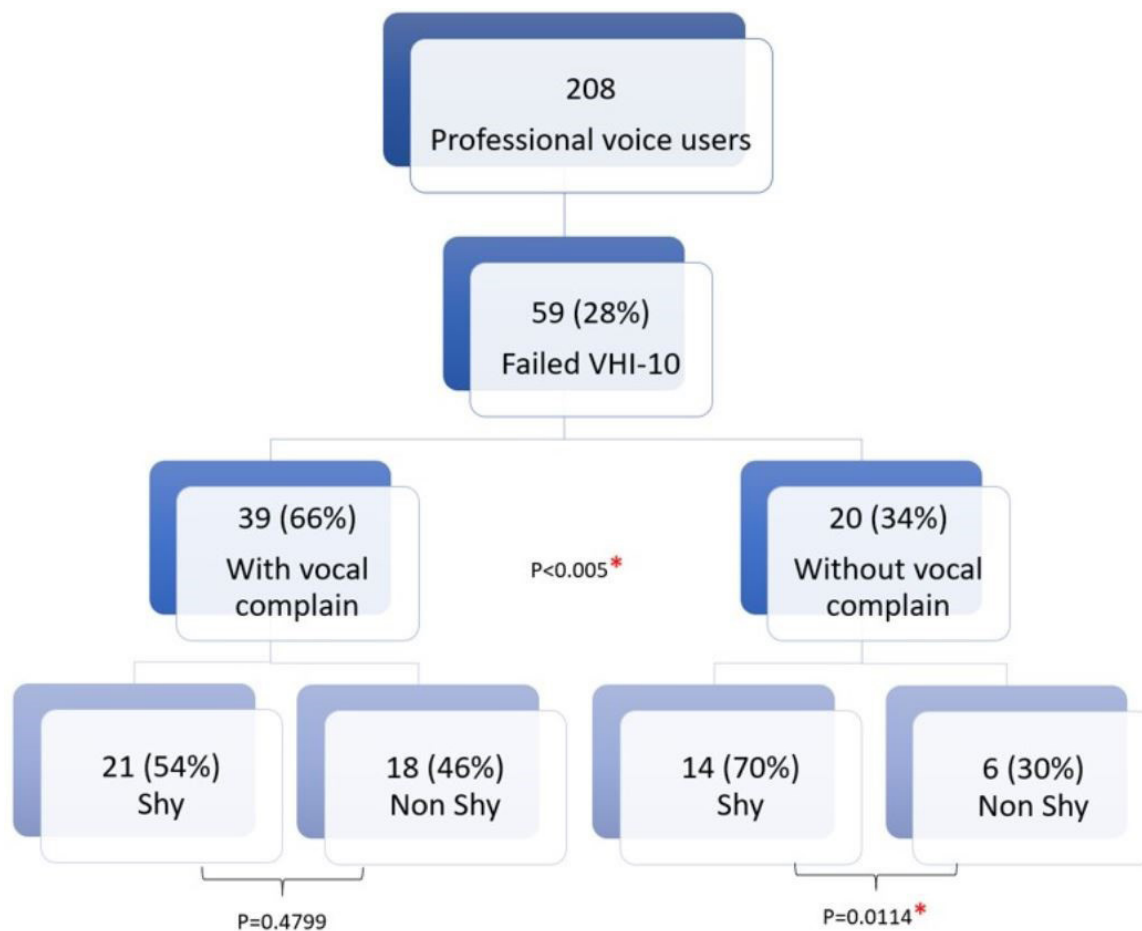


Figure 1. Numerical and percentage distribution of voice professionals, according to the vocal handicap, vocal complaint and shyness. * $p < 0.05$ – Two Proportions Equality Test

DISCUSSION

Vocal changes have taken several voice professionals to situations of withdrawal and incapacity to perform their activities, which implies financial and social costs¹⁵. A vocal handicap is understood as the damage or negative effect that a vocal change generates on an individual's quality of life⁷. The IDV-10⁸ is a self-assessment instrument for the perception of vocal handicap, which is essential for a better understanding of the impact of dysphonia in different areas of an individual's life⁹.

There are indications that, in the general population, shyness can interfere with the self-perception of vocal handicap¹². Teachers have already been considered an object of study in the association between shyness and vocal handicap and the results showed that shy teachers perceived greater vocal handicap when compared to non-shy teachers¹⁶.

This study aimed to analyze the association between the presence of shyness and the perception of vocal handicap in several voice professionals, since, like teachers, they are individuals who use their voice as a work tool and have perception and differentiated vocal demands¹¹.

Shyness has many characteristics related to speech and communication, often presenting physiological reactions that include the voice¹⁷. In situations of self-assessment, people usually pay attention only to what they do not like in the way they speak, as they are extremely critical¹⁸. In this way, these individuals with a vocal handicap but without vocal complaints can interpret and answer to the IDV-10⁹ based on communication complaints caused by shyness and not necessarily by a vocal problem.

The data from this research suggest that shy individuals tend to fail in the IDV-10, regardless of the presence of vocal complaints, as already shown in the literature¹². Thus, in individuals with vocal handicap and without voice complaints, shyness should be investigated, as it is considered a relevant factor in the perception of vocal handicap. Shyness, and not health or vocal behavior, can influence answers to some questions in the IDV-10, such as: "People have difficulty hearing me because of my voice", "My hearing problem voice limits my social and personal life" and "My voice problem causes me economic losses".

Voice professionals tend to be individuals predisposed to take greater vocal risks, as they are exposed to different types and intensities of demands. Generally, they are highly sensitive to changes related to the voice since any sign of dysphonia is considered important, with consequences that directly influence the professional and social life of the individual¹⁸. However, considering that the average of the IDV-10 scores in the shy population, in general, is 7.7 points¹², shy voice professionals have a score below 6 points. This fact may show that, even in the face of shyness, voice professionals have a self-perception of a less vocal handicap than the general population¹².

The results of this study showed that communicative characteristics affected by emotional aspects such as shyness could be confused with vocal aspects. In clinical practice and routine, it is up to the speech-language therapist and/or other professionals involved in the vocal care of these individuals to identify and explore anatomofunctional, behavioral, and emotional issues related to the use of the individual's voice. During investigations of the patient's vocal self-perception, the IDV-10 proved to be a very useful instrument in the prediction of

vocal changes. However, the results showed that this instrument should be used with caution when shyness is a potential trait in the individual being evaluated.

The fact that data was collected exclusively by an online questionnaire may be a bias for the studied sample, since there is the possibility that only those interested in the topic (voice and/or shyness) would have answered/participated and would like to talk about it. Also, the collection of more occupational characteristics of the use of voice, such as time of experience in the profession, workload, types of voice use, among other information that may interfere or not, in the perception of vocal handicap and/or shyness can be considered as study limitations and possibilities for future studies.

CONCLUSION

Shyness can be a confounding factor in the self-perception of vocal handicap, indicating that voice professionals may fail in a vocal screening instrument due to shyness and not a voice disorder.

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