

Research Article

Voice training for professional voice users

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ABSTRACT

Background: A professional voice user is defined as an individual who depends on the use of his or her voice to earn a living, and nowadays encompasses a gamut of professions ranging from highly skilled artistes to call center workers. All of them have various levels of vocal demand but not all are suitably equipped to meet these demands because of a lack of formal training.

Methods: This study was conducted as a short-term project under the auspices of the ICMR (Indian Council of Medical Research). The principal investigator is the first author, an undergraduate medical student, while the corresponding author is the faculty who guided the student in this endeavor. With a view to exploring how voice training, as opposed to voice therapy for a specific complaint or lesion, could improve the outcome and performance of a professional voice user with no prior training, we carried out this study in our institution and in a nearby school and college.

Results: Over half the subjects were found to have a complaint about their voice. There were equal numbers of men and women in this study and the age group of 26-30 years was the best represented. This age group is significant as it represents the start of the working life of a typical individual, in this case the professional voice user. A positive correlation was found between increasing age (and years of work experience) and the frequency of a voice complaint. With years of work experience more than 15 years, the frequency of voice problems decreased slightly. On cross checking, it was found that these persons were in more senior levels of work, and so had less work pressure.

Conclusions: This study shows that voice training has to be imparted over a considerable period of time even for the less skilled group of professional voice users.

Keywords: Voice assessment, Voice training, Professional voice user

INTRODUCTION

In the modern era, the term 'professional voice user' has come to mean much more than the exceptionally talented singer of the yesteryears. Today's professional voice user could be a teacher, salesperson, public servant, orator, call center worker, and of course, doctor. This is because communication and its demands on the human voice have increased by leaps and bounds.

Voice training for such professional voice users is barely existent, the consequences being that voice problems are on the rise. They not only impair performance and professional competence, but also result in manpower costs to the employer in terms of absenteeism, switching careers or seeking compensation for the occupational hazard of voice use or demand. Problems associated with vocal demand include voice fatigue and/or pain, hoarseness of voice or voice loss at sudden and unpredictable times. These issues, if persistent, may turn

out to reveal vocal cord edema, polyp or cyst or nodules, most of which are reversible with voice therapy but a good number might also require surgery.

METHODS

This study was conducted as a short-term project under the auspices of the ICMR (Indian Council of Medical Research). The principal investigator is the first author, an undergraduate medical student, while the corresponding author is the faculty who guided the student in this endeavor. With a view to exploring how voice training, as opposed to voice therapy for a specific complaint or lesion, could improve the outcome and performance of a professional voice user with no prior training, we carried out this study in our institution and in a nearby school and college.

The objectives of this study were several. The first was to evaluate the occurrence of voice-related issues, both major and minor, in the less skilled group of professional voice users. The second was to determine if voice training could improve performance in this group. The third was to create a general awareness about the concept of vocal hygiene and voice training among the less skilled professional voice users.

This was a cross-sectional study done over 2 months with a sample size of 50 professional voice users comprising school and college teachers in various disciplines and ancillary staff such as clergy and receptionists. Pregnant staff, those using audio-visual aids exclusively, those with cardiac, neuromuscular and pulmonary disease as well as those with a recent history of smoking were excluded from the study. None of the participants had had any prior voice training or any formal knowledge on how to care for their voice.

Level of evidence: 5 (questionnaire based survey)

Informed consent was taken from all the participants and they were provided with a participant information sheet briefly explaining the purpose of the study. The study was approved by both the institutional research committee as well as the ethical committee.

A baseline or pre-training survey of the participants was carried out with the help of a simple but well-designed form based on the standard Voice Handicap Index (VHI) questionnaire employed in voice clinics. Chief parameters studied were vocal pain or fatigue and presence of hoarseness or voice change.

A 2-week training session was then conducted for the study participants, which consisted of an initial assessment of the vocal status of the individual and then vocal warm-ups, breathing and jaw exercises. Tips on vocal hygiene were also provided for each participant according to their individual requirement(s). The participants were told to perform these exercises at home

on a daily basis and then report back for the post-training survey session. The voice training was provided by the speech-language pathologist. The importance of hydration, correct posture and breathing technique, and warm up by humming, breathing and stretching while observing posture and movement was reiterated.

The participants were offered ENT consultation and videolaryngoscopy if they wished but this was not required by anyone as they all attributed their vocal symptoms to the demands of their profession and did not really believe that the problem was significant enough to ask a doctor about.

A post-training survey was then carried out with the same questionnaire to record, if any, improvement of the previous complaint.

Being a simple survey in design, other important parameters such as background noise, environmental acoustics and atmospheric humidity, et cetera, were not taken into consideration. It was primarily designed with the idea of generating awareness of the concept of voice training and a team approach to addressing the vocal problems of this unique group of professional voice users.

RESULTS

Over half the subjects were found to have a complaint about their voice. There were equal numbers of men and women in this study and the age group of 26-30 years was the best represented. This age group is significant as it represents the start of the working life of a typical individual, in this case the professional voice user. A positive correlation was found between increasing age (and years of work experience) and the frequency of a voice complaint. With years of work experience more than 15 years, the frequency of voice problems decreased slightly. On cross checking, it was found that these persons were in more senior levels of work, and so had less work pressure.

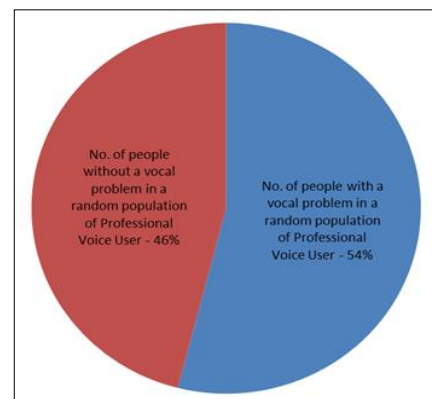


Figure 1: Proportion of subjects with a voice complaint (Distribution of people who have a vocal issue & who do not).

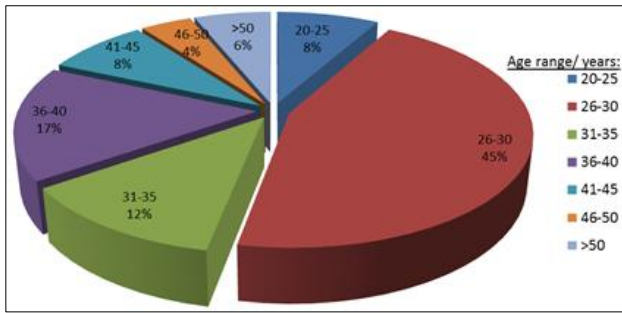


Figure 2: Age distribution of professional voice users.

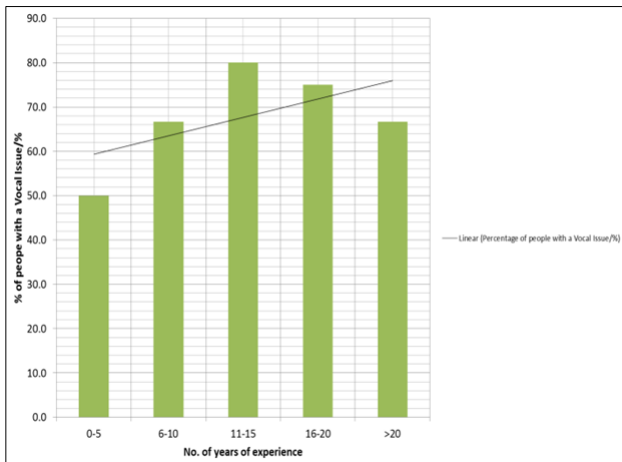


Figure 3: Correlation of voice problems with duration of experience.

The proposed period of study, namely 2 months, meant that all the participants had to be recruited within this period and that only a 2-week training session could be provided to each of them.

Nearly all of the participants reported either nil or minimal improvement in their vocal performance due to this short training period. Many were initially resistant to the idea of voice ‘training’, considering their natural voice a reflection of their personality, which was now apparently being judged! However, most of the participants found the training useful as it opened their mind to the whole concept of vocal hygiene, which most people do not take seriously. They were particularly impressed with the idea of making their voice ‘fit’ for their respective nature and level of activity.

DISCUSSION

Professional voice users may be categorized into the highly skilled sector of music and the fine arts like acting and theatre, and the less skilled- from the point of view of voice use- and this includes teachers, orators, doctors, managers and supervisors. They have been broadly classified into performing singers, performing speakers and ‘voice demand’ professionals.¹ All of them depend on their voice, and the way they use it, for optimum communication and professional performance.

Teachers, doctors, orators and so on, must engage in their day to day activities and professional commitments with only their natural voice as the tool for communication, being completely ignorant about the ways and means to enhance the efficiency of their voice. Sataloff has illustrated in exquisite detail the nuances of caring for a highly skilled professional voice user, such as a singer. He has also advised a similar approach, albeit of lesser intensity, for professional voice users that might be less skilled and untrained in terms of voice, such as those we have included in our study.²

A lot of these less skilled professional voice users must work under conditions which tend to put extreme stress and strain on the voice. Teachers in primary school, in addition to managing groups of small children requiring increased disciplining, also lack audio- visual aids by which to lessen voice demand. Doctors must invariably work with patients and students in different kinds of settings, with attendant voice strain ranging from negligible to enormous. For example, doctors in a busy hospital or practice in a resource- poor area may not only have to speak for prolonged periods without adequate breaks, but also shout or strain occasionally to frequently. All such individuals would require effective assessment of their voice for optimal functioning, according to well-defined protocols.³

Orators, managers and supervisors may have to control large groups of people or workers, often without a public address system, or in the foreground of high levels of ambient noise. Other environmental factors such as shift work, faulty food habits, smoking and alcohol intake, also add to the increased risk of gastro-esophageal and laryngo pharyngeal reflux in these groups, and the simultaneous effect of this reflux on the production and maintenance of vocal function. With an increase in airline travel, the peculiar effects of flight travel on the vocal health of voice professionals should be borne in mind.⁴ Gender differences are also significant, especially since hormonal changes and cycles are known to impact vocal performance.⁵

Given the pervasive ignorance of this issue and the natural tendency to consider the voice as an extension of one’s personality, the very idea of voice training is alien to this less skilled group of professional voice users, though several studies have proved the beneficial effects of such training.⁶⁻¹⁰

Cases of hoarseness of voice are usually diagnosed as ‘teacher’s nodules’ or ‘hemorrhagic polyp’, or even ‘phonasthenia’ and ‘dysphonia plicae ventricularis’. All of these could be corrected with proper voice therapy and training. As many of these might require corrective surgery, it is worthwhile investing in voice training at the start of one’s professional career, and research worldwide is increasingly looking into the needs of specific groups such as call center workers.¹¹ Voice demand professionals are also extremely sensitive about discussing their vocal

issues for fear of word getting around and compromising their future prospects, hence a comprehensive system of voice evaluation, counseling and therapy at the workplace itself could go a long way in catering to the needs of these workers.¹ A well-equipped professional voice clinic should also educate and enlighten professional voice users undergoing surgery on any other part of the vocal tract apart from issues concerning the vocal cords per se.¹²

CONCLUSION

The main constraints of this study were the small sample size and short study period, the first one reducing the power of the study and the second one yielding inconclusive results. Getting even 50 people recruited into the study was a major challenge because the participants, though highly qualified professionals in their own right, could not understand their responsibilities as professional 'voice' users, and the obligation towards maintaining the integrity of this essential faculty.

The fact that the 2- week training did not yield significant results informs us that wrong patterns of voice use become ingrained into the personality of an individual, and reversing these take effort and motivation on the part of both trainer and trainee. The negative results of this study prove that voice training should be an on-going process for it to be beneficial. This should include periodic health check-ups and timely intervention to address the myriad and niggling vocal problems of these workers.

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Conflict of interest: None declared

Ethical approval: The study was approved by the institutional research and ethics committee

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