Sing, sing, sing

Sustainable vocal health for music teachers

Teachers are professional voice users. They place considerable demands on their vocal instrument as the critical resource of effective communication. This is especially the case for music teachers where they are required to talk and sing extensively throughout their working day, often over background noise, music and musical instruments. Vocal based programs can also place an added demand on the teacher’s instrument – their voice. The literature suggests that voice professionals have a high incidence of work-related voice problems and that teachers of music are eight times more likely to seek voice treatment than other voice professionals in the population. This paper details literature and research into vocal health for teachers. All music teachers need to be aware of their voice and what they can do to ensure vocal sustainability during their working career as a music teacher.

Introduction

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Literature

**What is a voice disorder? Who is at risk?**

It is generally accepted that a voice disorder (voice problem) is a condition that has a significant impact on the quality of life and reported job functioning of those impacted by such disorders. Verdonolini and Ramig (2001) stated that:

“...a relatively cohesive picture emerges of consistent identification of some occupations being at particular risk for developing a voice problem...in particular teachers and singers emerge as sub-populations at special risk...some studies indicate that nearly 50% of teachers experience voice problems at any given point of time” (p. 43).

These researchers suggest that excessive use or abuse of the voice in the classroom can lead to poor vocal health and a range of voice disorders.

Two large-scale studies conducted in Sweden (Fritzell, 1966) and the U.S. (Titze et al., 1997) compared the relative frequency of various occupations’ attendance at voice clinics in comparison to those occupations as a percentage of the general workforce at large. In both studies the researchers suggested that teachers and singers were the two occupational groups with the highest risk of occupational voice disorders. Gillivan-Murphy et al. (2006) also reported classroom teachers as a high-risk group for the development of voice problems. They however concluded that effective education and treatment plans were needed to meet the occupational needs of teachers.

**Research with teachers as the specific target group**

Teachers are required to talk extensively throughout a workday, often over background noise in environments that induce vocal misuse. As a consequence, voice problems and disorders are emerging as a significant occupational health issue for many teachers. Smith et al. (1997) found that 4.2% of teacher respondents reported a voice problem significant enough to make them consider a career change. Similarly, Russell et al. (1997) found that Australian teachers reported a trend of sick days and consideration of a change of career because of chronic voice problems. Both studies concluded that voice problems had a significant impact on teachers’ professional performance. In support of this view, Rogerson and Dodd (2005) suggest that teachers’ voice problems can result in major disruption in teacher to student communication with implications for poor quality learning environments. Williams (2003) also stated that reports on the prevalence of voice problems for teachers range from an estimated 4.4% for treatment seeking samples to 90% for self-reported vocal dysfunction. All these statistics have serious implications for the community in terms of poor learning environments and teacher absences due to work-related voice disorders.
**Vocal health training for preservice teachers**

The impact of voice problems might be lessened if teacher education preparation programs included vocal health and management components. Duffy and Hazlett (2004) conducted a study using a sample population of 55 teacher trainees in the postgraduate certificate of education course (PGCE) at the University of Ulster. They found strong evidence that preventive voice care training programs should be included in the PGCE course.

“...there is a need for primary prevention of occupational dysphonia among the teaching profession, where good vocal health is promoted before a problem occurs”, (p. 63).

Simberg et al (2004) supported this conclusion:

“special attention should be paid to the voice care of teacher students...vocal issues should also be far more explicitly addressed in the university educational programs”, (p. 367).

A study by Ilomaki et al (2005) also confirmed a need for vocal training. In their study were 124 primary and secondary teachers. The incidence of vocal symptoms was lowest in teachers with long term training in vocal health. Despite the strong recommendations for vocal training for teachers and pre-service teachers the literature points to a lack of any specific voice training for pre-service teachers in US and European teacher education programmes, including Australia (Hartwig and Bartlett, 2006).

**Music specialist teachers and vocal health**

The literature of teachers’ occupational voice disorders is well established, but there are fewer reports on the vocal health issues of music specialist teachers as a group. Welham and Maclagan (2003) found that vocal fatigue is particularly common among the teacher, singing and acting professions. Bernstorf and Burk (1996) examined the predictive abilities of three factors associated with professional voice use in elementary music teaching to predict scores on a self-rated index of vocal integrity. These factors were (1) a percentage of life span spent in teaching, (2) a teaching schedule factor, and (3) specific dosimetric measures of classroom noise. They concluded that there was a significant relationship between maximum classroom noise and teachers’ vocal pathologies and suggested that there was a need for in-service training for teachers’ vocal use habits and teaching strategies for noisy classrooms. Hendry (2001) reported that the greatest concern was the emotional exhaustion levels of young vocal music educators; the frequency of untreated voice problems among instrumental music educators; and the need for vocal management for teachers.
Fritzell (1996) argued that singing requires greater endurance than speaking because it accesses a more extensive vocal range and finer vocal control. He spoke of wider pitch variations, more sustained volume or loudness and access to a range of style-driven tonal qualities. He reasoned that a combination of vocally-abusive speech habits and hours of strenuous singing would increase the risk of voice disorders, and suggested that in combining the two ‘most at risk’ occupations, ‘singing and teaching’, teachers of music are more likely to seek voice treatment than other professional voice users in the general population.

A recent study by Hackworth (2007), examined the effects of vocal hygiene and behaviour modification instruction on self-reported behaviours of music teachers. The experimental group that received both vocal hygiene instruction and behaviour modification information designed to help teachers individually identify and correct voice problems significantly decreased reports of vocal problems in the weeks closest to the treatment. Hackworth believed that if behaviour modification is the key to improving vocal health, its inclusion in music teacher education programs could have an enormous benefit to the vocal health of all music teachers.

**Music specialist teachers in Queensland**

Music specialist teachers rely heavily on both their speaking and singing voice as their primary tool of trade in delivering classroom music lessons. A vocal based programme can place further load on the teacher’s voice. A Queensland-based pilot study by Bartlett and Hartwig (2004) found four major issues reported by the music teacher participants reporting on their voice problems that: (1) had prevented them from doing all they wanted to do with their voice, (2) impaired communication abilities, (3) resulted in sick days due to voice problems and (4) prompted career moves from music specialization to general classroom teaching. The teachers reported that it was common for them to experience vocal fatigue and vocal dysfunction to varying degrees. These findings were consistent with published reports of professional voice users by Koufman and Blacklock (1998).

A further study by Bartlett and Hartwig (2005) reported on a case study of three embedded cases. All three participants worked as primary music specialist teachers. All three teachers reported problems with their voice that affected their teaching. One teacher had to withdraw from singing in a professional choir, another was forced to leave the music teaching profession and the third teacher had to take extended leave from her music teaching position. None of the teachers had experienced voice problems prior to the commencement of their teacher training and all suggested that the inclusion of specific voice management coursework in their pre-service training would have helped them to better manage the rigours of the music classroom environment.
A larger study conducted by Hartwig and Bartlett (2006) sought to gather information on music teachers’ perceptions around five issues: (1) prevalence of voice problems, (2) the impact of any such problems on their ability to perform in a professional context, (3) specific voice symptoms and management strategies, (4) voice training backgrounds, and (5) teaching history and demographic information. All 100 of the respondents were music specialist teachers. 98 of the 100 participants reported some experience of voice problems since commencing full-time teaching. In response to a list of voice symptoms, participants reported that they commonly suffered hoarseness, lost voice, dry throat, sore throat, laryngitis, and tired voice. Importantly, while fifty-one participants reported that it took a week or more for their voice to return to normal, twelve stated that their voice had not returned to normal. 52 participants believed that in-service, voice care and vocal health sessions would be helpful in the management of and prevention of voice problems.

Vocal Sustainability

What can be done to assist music teachers?

The guide for vocal sustainability is for the following actions to become a regular routine in the daily life of a music teacher. This routine needs to commence BEFORE damage occurs.

**DO**

- Drink plenty of water – hydrate those vocal folds.
- Learn to breathe and sing correctly.
- Learn how to align the body to give balance and support when singing.
- Warm up the voice before singing (and talking for prolonged periods).
- Develop non-language attention signals.
- Rest the voice whenever possible.
- Eat a healthy diet and keep fit.
- Know the potential side effects of medications – many may have adverse effects on the voice.
- Seek professional help *immediately* there is a problem with the voice.

**DON’T**

- Sing when suffering from a sore throat, bad cold, flu symptoms, laryngitis.
- Whisper – this may actually make the voice worse.
- Sing or talk over the noise of the children.
- Sing or talk over the playing of musical instruments or a CD player.
• Shout or yell.
• Smoke.

Conclusion

Music teachers have a very heavy speaking and singing voice load placing strain on their voices. As supported by Koufman and Blacklock (1988) it is not uncommon for this group of voice professionals to experience varying degrees of vocal fatigue and vocal dysfunction during their career. Fritzell (1966) emphasised that preventive voice care is more necessary in music teacher programmes than any other vocational education. All teacher education programmes at the tertiary level have an urgent need to develop a systematic, research-based training framework for preservice and post graduate students in education, and specifically in music education, that focuses on sustainable vocal health. Professional development programmes for qualified teachers should also be offering information for teachers that will continue to support all teachers in maintaining vocal health throughout their careers. Once again, this is especially the case for music teachers. Music teachers also need to be proactive in caring for their voices – the most important instrument.

References


