



Voice therapy and Behavioral management

Introduction

Voice therapy is a mainstay in laryngology. Voice therapy can be applied in the management for all patients with dysphonia.

Scientific Premise

- Two main approaches about voice therapy have been published- direct and indirect.
- Direct interventions include tools that modify vocal behavior through motor execution, somatosensory feedback, and auditory feedback.
- Indirect interventions include tools that modify the cognitive, behavioral, psychological, and physical environment in which voicing occurs.
- No universal conceptual framework of voice therapy currently exists, and therefore these two commonly described categories for voice therapy have not been quantified in a standard approach.

References:

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Indications and Contraindications

- Voice therapy and behavioral management is indicated for ALL patients with dysphonia. There is no contraindication for voice therapy. It may be the primary treatment for patients with functional dysphonia including muscle tension dysphonia, neurolaryngeal dysphonia and paradoxical vocal fold motion. Patients with benign lesions secondary to phonotrauma, vocal fold scarring, vocal fold atrophy or paralysis would also benefit from voice therapy as an adjunct to surgical intervention.

Treatment method

- Direct approaches aim to alter physiology to restore improved quality and/or function and facilitate healing of mucosa through exercise. Direct approaches include changes in posture, respiratory control, phonation, articulation, resonance, and muscle tension through various techniques.
 - Laryngeal massage and circumlaryngeal reposturing helps a patient relieve muscle tension dysphonia.
 - Accent, stretch and flow phonation, yawn and sighing are techniques of flow phonation.
 - Resonant voice includes semi-occluded vocal tract therapies, forward focus of the voice, vocal function exercises like certain words, phrases, pitch slides, chanting and projecting.



- Indirect approaches include tools that modify the cognitive, behavioral, psychological, and physical environment in which voicing occurs. Behavioral management around voice use is part of the indirect approach. Vocal hygiene is also a significant component of indirect approach to voice therapy. The American Academy of Otolaryngology recommends vocal hygiene as part the treatment algorithm for dysphonia.
 - Vocal hygiene includes hydration and humidification. Hydration is explanation of benefits of internal and external hydration. While no standard exists for hydration, some have recommendation that the number of ounces of water intake should equal $\frac{1}{2}$ an individual's body weight in kg. Humidification techniques may include a portable humidifier, steam inhalation and nasal saline irrigations that may humidify the laryngopharyngeal complex.
 - Addressing factors like allergy, acid reflux, and dryness are important in order to reinforce diet modification, education on allergy symptoms and medical management of both.
 - There should also be a consultation of how to eliminate phonotraumatic behaviors, which may include compensation and use of amplification devices as examples of environmental modification.
 - Stretches and relaxation including breathing related to voice and posture, body awareness are important
 - Motivation and psychosocial counseling is important in empowering the patient, giving reassurance to stress/anxiety and depression, and how these can affect voice.

References:

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Management of complications

- Patients with phonotraumatic lesions that continue to impede vocal fold pliability or prevent glottic closure, or those who have incomplete closure secondary to atrophy or vocal fold paralysis or paresis may need more than voice therapy. Voice therapy assists in unloading compensatory hyperfunction that may result because of these disease pathologies, and will ultimately help in rehabilitation of the voice. However, these patients may require surgical intervention in order to improve anatomical deficits secondary to pliability or glottic closure concerns.