EDITORIAL

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Vocology: past, present, and rising prospects

Vocología: perspectivas pasadas, presentes y en aumento

Russell E. Banks[1, 2]

[1]*Massachusetts General Hospital; Boston, Massachusetts; United States.*

[2]*Michigan State University; East Lansing; Michigan; United States.*

Correspondence
Russell E. Banks, email: banksru1@msu.edu

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History of vocology in the America's

In the late 1980's and early 1990's, the scope of practice of several well-trained disciplines in the realms of voice science, voice habilitation and enabling, singing, and general voice health were overlapping. The need for unifying organization, terminology, and practice standards were becoming increasingly evident. However, they were made challenging due to the interests of the many disciplines involved. In 1990, Dr. Ingo Titze published a brief call for the unification of disciplines towards the defining of roles and standards for the field of voice science, which he termed "vocology" [1].

During the mid and late 90's, vocology courses were created and taught at various North American institutions, including the University of Iowa and the Denver Center for the Performing Arts, in conjunction with the National Center for Voice and Speech (NCVS). Additionally, several of the first publications outlining the goals and roles of vocologists were published in an attempt to guide instruction and begin promoting specialized qualifications for voice scientists. In 1996, the first journal that covered the study of vocalization and included the term "vocology" in its title was created in *Logopedics Phoniatrics Vocology* [2].

Despite the growing popularity of vocology during the early 2000's, a consensus had not yet been reached regarding the specific scopes of practicing voice scientists, voice clinicians, and singing voice specialists. Given that courses were being offered and credentials being formulated in vocology, the need for unity among professionals with a vested interest in voice habilitation became dire. In 2013, the NCVS hosted the Specialty Training in Vocal Health (STVH) Symposium. The leading voice scientists, clinicians, medical professionals, and representatives from diverse parties with specific interest in the future of vocology gathered from the North, Central, and South America to eventually form the Pan American Vocology Institute (PAVA; https://pavavocology.org/). As the guiding organization for vocologists, PAVA has begun to unite stakeholders from various fields to establish a scope of practice, promote training standards and opportunities for aspiring vocologists, and establish potential for future certification qualifications.

Vocology training and credentialing

Several interest areas have been adopted by PAVA as vital primary pedagogical topics of instruction for vocologists. The following areas have been identified as primary instruction areas for aspiring vocologists (PAVA, Resolution 1017 C) [1]:

- Singing (solo and choral).
- Efficient voice use in speaking.
- Vocalization for acting and professional speaking.
- Vocalization for meditation.
- High-energy calling (military, sports, construction sites, emergency).
- Animal vocalization.
- Human primal vocalization.
- Vocalization for general health and improved body function.
- Machine vocalization (voice simulation).
- Amplification effects on vocalization.

To further recognize specialization and training in voice habilitation across disciplines, PAVA worked to establish the PAVA Recognized Vocologists (PAVA-RV) credentials for those seeking specialization across disciplines in the study and practice of vocology. These credentials recognize experience and further solidify minimum training requirements aimed at unifying multidisciplinary efforts to habilitate voice. In North America, several institutions have incorporated vocology training programs, including universities in Illinois, Indiana, Kansas, New Jersey, Texas, Virginia and specialty programs in Chicago, New York City, Princeton, and Salt Lake City.

The future of vocology

The 2019-2020 calendar years have brought an incredible amount of change, primarily in the provision of healthcare to needy and at-risk populations throughout the world. The onset of SARS-CoV-2 or severe acute respiratory syndrome —coronavirus 2019 (nicknamed "COVID-19")— has affected millions of people to date and is relentlessly spreading even as this preface is being written. Survivors of this disease are left with an uncertain future, particularly as it pertains to respiratory capabilities. Recent literature has estimated that nearly 50% of patients presenting with COVID-19 in hospital will require continued care post release [3]. It is estimated that as many as 1/3 of patients may suffer specific negative pulmonary effects and respiratory muscle weakness, which may last for months or longer [3–5]. If these projections continue to stand, in the Americas alone, nearly 10 million individuals will face respiratory challenges likely affecting speech and voice production [6–7]. The need for trained vocologists in the rehabilitation of post COVID-19 voice production is already increasing as those affected begin to recover from acute symptoms and intubation. Thus, the efforts of vocologists must turn to the investigation of the longevity of voice symptomology in COVID-19 and

the most effective means of intervention (likely provided in an electronic, socially-distanced manner) for those requiring post-acute therapy. With the need for well-trained vocologists on the rise, we have the opportunity to improve the quality of lives of many through research and evolving clinical practice.

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