

Julie Barkmeier-Kraemer, PhD, CCC-SLP Joins the NSDA Scientific Advisory Board

Julie Barkmeier-Kraemer, PhD, CCC-SLP, is a speech-language pathologist and professor in the Division of Otolaryngology, Clinic Director for the Voice Disorders Center, and Adjunct Faculty to the Communication Sciences and Disorders program at the University of Utah. Dr. Barkmeier-Kraemer received her M.A. and Ph.D. degrees from the Department of Speech Pathology and Audiology at the University of Iowa and completed postdoctoral work in the area of neurolaryngology with Dr. Christy Ludlow at the National Institutes of Health. Julie Barkmeier-Kraemer is Board Certified by the American Speech-Language-Hearing Association (ASHA). Most recently, she has agreed to join the NSDA Scientific Advisory Board.



Dr. Barkmeier-Kraemer has had an interest in spasmodic dysphonia for many years. However, she is an exciting addition to the NSDA Scientific Advisory Board because of her work with vocal tremor patients. We asked Dr. Barkmeier-Kraemer about her interest in vocal tremor and why she decided to join the NSDA Scientific Advisory Board.

What drew you to study voice? What is it about vocal tremor that caught your attention?

VOICE: My interest in voice was sparked by my work with patients with laryngectomy during my master's training program. I was assigned to a clinical training position at the VA Hospital while in my training program and was supervised by Adrienne Perlman, PhD. She was the first to teach me how to conduct a voice assessment, problem-solve the anatomy and physiology associated with voice production, and to interact with otolaryngologists, including watching their surgeries. I fell in love with head and neck cancer patients as my first step toward working with those having voice disorders. I particularly loved the ability to problem-solve how the voice worked to inform how to help them.

SD AND VOCAL TREMOR: My interest in spasmodic dysphonia first occurred during my clinical fellowship training in the Department of Otolaryngology at the University of Iowa Hospitals and Clinics. I was supervised by Hughlett Morris, PhD and Duane Van Demark, PhD. During my training, Steve Gray, MD joined the faculty and was interested in starting a voice clinic. We began evaluating and treating individuals with spasmodic dysphonia and I was perplexed by their voice signs and symptoms. I had the pleasure of interacting with Arnie Aronson, PhD at a Motor Speech Disorders meeting where I learned more about this problem. After Steve Gray relocated to the University of Iowa, I worked with Harry Hoffman and we developed a protocol for assessment of those with SD and vocal tremor that helped highlight some differences. We conducted a study using Botox[®] to study whether injection into the strap muscles would

benefit those with vocal tremor given the involvement of vertical laryngeal tremor at that time. Our team visited Christy Ludlow, PhD at the NIH as the primary expert conducting research with treatment using botulinum toxin injections. Through my work in the voice clinic at the University of Iowa and then my post-doctoral work with Dr. Ludlow, I became dedicated to trying to solve the cause and improve treatment options for those with SD and those with vocal tremor.

However, it wasn't until I was a faculty member at the University of Arizona that I was challenged by a patient presenting with vocal tremor that sounded like SD, but wasn't, causing me to focus my interest more toward vocal tremor. This first patient did not have interest in Botox injection treatments and convinced me that there must be something else she could do to manage her symptoms. This is where my work with Kay Wiley (clinic supervisor) developed a speech treatment based on the physiology of vocal tremor. We worked with this first patient to find strategies that could reduce the impact of her vocal tremor on speaking problems. The primary thrust of the treatment was to reduce the duration of voiced speech sounds to reduce perception of the slow-rate production of vocal tremor.

In working with SD and vocal tremor patients, what is one of the biggest challenges your patients have faced?

I think the biggest challenge for patients is misdiagnosis and prolonged time from onset of symptoms to finding a healthcare provider capable of helping them. Most patients share that they experienced frustration that no one could tell them what they had and could not help them. Several worry that the problem is all in their head and they are sometimes told that by providers unfamiliar with their disorder.

Any highlights in your career in working with patients with voice challenges?

The highlights in my career are my amazing colleagues who have trained me and influenced me along the way as well as the inspiration I get from the patients facing voice challenges due to SD and vocal tremor. My current work is all based on what I've learned from my patients in addition to the foundation of knowledge provided by my training and brilliant colleagues.

The biggest lesson I've learned is to listen carefully to my patients - they are insightful about their problems and are able to share gems that influenced my thinking and work with them. It was my patients who convinced me that a speech-language pathologist offers value to their care, despite the fact that we are not agents of a cure. The patient counseling, education, and instruction on communication strategies Speech-Language Pathologists offer are of high value to those with SD and vocal tremor.

Where do you see the gaps in research in understanding SD and related voice conditions?

I think the biggest current gap remains the need for a clear and definitive diagnostic criterion and clinical protocol. Without precise diagnosis, effective treatment is elusive. To achieve this, the next gap is a clear understanding of the underlying pathophysiology to enable differential diagnosis between SD and other voice disorders that are frequently confused as being SD or vice versa.

How did you get involved with the NSDA?

I got involved initially while completing my post-doctorate with Christy Ludlow at the NIH. Christy was generous with her time and sponsorship of those of us working in her lab. Once I got to the University of Arizona, I was less involved other than through invited lectures to support groups, including the national NSDA meeting in Chicago. However, I was recently invited to join the Scientific Advisory Committee and am delighted to finally serve the NSDA more directly.

How would you like to contribute to the NSDA in your role as an Scientific Advisor?

I am enthusiastic to offer my professional and scientific expertise to the advisory committee and think tank of colleagues assembled. I would also be interested in continuing my learning from and engagement with the membership of the NSDA regarding the greatest needs and concerns of patients and to learn how I can be of better service moving forward to this group.

Anything else you would like to share?

I am grateful for all of the advocacy and support the NSDA offers to those with SD. I am also enthusiastic to partner with the NSDA to support preliminary research and clinical work that will ultimately benefit those with SD. I look forward to working with the NSDA leadership toward supporting the training and mentorship of colleagues in speech-language pathology, otolaryngology, and neurology to assure that more healthcare providers have the necessary expertise to support those with SD.

