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Place of Birth: Wilmington, DE, USA

Education

09/2001-05/2005	B.M. (Bachelor of Music)	Performance Voice – Tenor	University of Delaware; Newark, DE
09/2005-01/2008	M.A.	Communication Disorders	Temple University; Philadelphia, PA
09/2012-05/2016	Ph.D.	Rehabilitation Sciences	Institute of Health Professions (IHP), Massachusetts General Hospital; Boston, MA

Faculty Academic Appointments

01/2010-05/2010	Adjunct Faculty	Communication Sciences	Temple University, Philadelphia, PA
01/2017 – 06/2018	Instructor in Surgery	Department of Surgery	Harvard Medical School; Boston, MA
07/2018 -	Assistant Professor in Surgery	Department of Surgery	Harvard Medical School; Boston, MA

Appointments at Hospitals/Affiliated Institutions

01/2008-07/2012	Speech language pathologist	Rehabilitation Department	Christiana Care Health Systems, Newark, DE
01/2010-07/2012	Speech language pathologist	Helen F Graham Cancer Center	Christiana Care Health Systems, Newark, DE
09/2012-01/2017	Senior clinical research coordinator	Department of Surgery – MGH Voice Center	Massachusetts General Hospital, Boston, MA
09/2016-	Adjunct Assistant	Department of Communication	MGH IHP, Charlestown,

	Professor	Sciences and Disorders	MA
01/2017-	Research Speech language pathologist	Department of Surgery – MGH Voice Center	Massachusetts General Hospital, Boston, MA

Committee Service

Local

01/2010-07/2012	Delaware Laryngectomee Support Group	Coordinator/Director

Professional Societies

01/2005-01/2010	National Association of Teachers of Singing	Member
01/2008-	American Speech-Language-Hearing Association (ASHA) 1/2013 – 1/2014 Ad hoc Committee re: Treatment Taxonomy for SLP Healthcare 5/2015- ASHA National Convention – Voice Section Planning Committee	Member
01/2008-	ASHA Special Interest Group for Voice	Member
01/2008-	ASHA Special Interest Group for Swallowing	Member
01/2009-01/2010	Voice and Speech Trainers Association	Affiliate
01/2015-	ASHA Special Interest Group for Speech Disorders	Member

Editorial Activities

Editorial Board Member for

2018- *American Journal of Speech-Language Pathology*

Ad-hoc Reviewer for

2012-2014 *Perspectives on Swallowing and Swallowing Disorders*
2013-2014 *Clinical Linguistics and Phonetics*
2015- *Journal of the Acoustical Society of America*
2017- *Journal of Speech, Language, and Hearing Research*
2018- *Perspectives on Voice and Voice Disorders*

2018- *Journal of Voice*

Honors and Prizes

05/2005	Member	Phi Kappa Phi	Excellent Scholarship
05/2005	Member	Pi Kappa Lambda	Music Excellence
11/2014	New Century Scholars Doctoral Scholarship	ASH Foundation	$10,000 for doctoral studies

11/2015	Meritorious poster	ASHA National Convention	Estimating subglottal pressure during phonation with a neck-surface accelerometer sensor
11/2016	Meritorious poster	ASHA National Convention	Correlating ambulatory voice measures with vocal fatigue self-ratings in individuals with MTD and normal controls.
04/2017	Leadership program	ASHA Lessons for Success	Selected as one of 30 early-stage scientists to attend an intensive workshop on career development
09/2017	40 for 40	MGH Institute of Health Professions	Selected as one of the top 40 alumni "making a difference" in healthcare
05/2019	Emerging Leader Alumni Award	MGH Institute of Health Professions	Early career recognition for significant contributions to healthcare

Report of Funded and Unfunded Projects

Funding Information

Past

09/2012-05/2016 Ambulatory monitoring of vocal function to improve voice disorder assessment
(PI: Robert E. Hillman, Ph.D.)
National Institute of Health/National Institute on Deafness and Other Communication Disorders R33 DC011588
Research Speech Language Pathologist/Senior Clinical Research Coordinator
The goal of this study is to develop accelerometer-based ambulatory monitoring of vocal function into a valid, reliable, and cost-effective clinical tool that can be used to accurately identify and differentiate patterns of voice use that are associated with hyperfunctional voice disorders.

09/2014-05/2016 The influence of ambulatory biofeedback schedules on the retention of a vocal motor behavior
National Institute of Health/National Institute on Deafness and Other Communication Disorders F31 DC014412
Primary Investigator
The goal of this project is to implement more sophisticated ambulatory voice biofeedback, using principles from the motor control and learning literature, to attempt to improve the retention of modified vocal behaviors in daily life.

01/2014-01/2018 Better rehabilitation through better characterization of treatments: Development of the Manual for Rehabilitation Treatment Specification
Patient-Centered Outcomes Research Institute ME-1403-14083
Consultant (PI: John Whyte, M.D., Ph.D.)
The objective of this project is to develop the conceptual framework of the Rehabilitation Treatment Taxonomy (RTT) into standardized operational procedures by which clinicians, educators, and researchers across all rehabilitation disciplines may define and specify rehabilitation treatments according to their immediate effects, mechanisms of action, and

hypothesized active ingredients.

Current

04/2017-03/2020 Measuring what happens in voice therapy: refinement and testing of a voice therapy taxonomy
National Institute of Health/National Institute on Deafness and Other Communication Disorders R21 DC016124
Primary Investigator
The proposed work will refine the voice therapy taxonomy via national expert consensus and establish inter-rater reliability across five voice centers.

04/2017-03/2022 Clinical Research Center for the Improved Prevention, Diagnosis, and Treatment of Vocal Hyperfunction
National Institute of Health/National Institute on Deafness and Other Communication Disorders P50 DC015446
Co-Investigator on Project 1 and Core B (PI: Robert E. Hillman, Ph.D.)
The goal of the Clinical Research Center is to investigate mechanisms that are hypothesized to play primary roles in causing and/or maintaining vocal hyperfunction – and to use this new knowledge to improve the prevention, diagnosis, and treatment of these voice disorders.

Current Unfunded Projects

01/2014-current Primary Investigator / Investigation into variability as it pertains to vocal motor learning

The objective of this project is to investigate whether the use of a voice-controlled virtual environment can provide insights into how new vocal skills are developed and whether measurements of temporal and/or distributional variability can predict the permanence of a newly learned vocal skill.

Report of Local Teaching and Training

Teaching of Students in Courses

01/2010	Assessment/treatment of voice disorders	Temple University, Philadelphia, PA
	2nd year masters students in Communication Sciences, approximately 30 students	3-hr sessions per wk, 14 wks
01/2008-01/2012	Vocal Pedagogy	University of Delaware, Newark, DE
	3rd year bachelors and 1st year master's students in music, approximately 40 students	3-hr session, 1 time per semester
03/2013	Applied Speech Science	Boston University, Boston, MA

	1st year masters students in Communication Sciences, approximately 30 students	3-hr session, 1 time per semester
04/2014, 04/2016	Head/neck neuroanatomy and physiology	MGH IHP, Charlestown, MA
	1st year masters students in Communication Sciences, approximately 60 students	3-hr session, 1 time per semester
09/2016-	Voice disorders 2nd year masters students in Communication Sciences, approximately 60 students	MGH IHP, Charlestown, MA 3-hr session, 1 time per semester
01/2018-	Anatomy of speech and hearing 1st year Ph.D. students in the Speech and Hearing Bioscience and Technology Program, approximately 6 students	Harvard Medical School, Boston, MA 3-hr session, 1 time per semester

Clinical Supervisory and Training Responsibilities

01/2010-07/2012	Supervising and training Master's students from various Universities on Christiana Hospital's acute care unit and cancer center	Students would have three month internships and I would be their primary clinical supervisor
01/2013-12/2014	Mentoring potential speech pathologists through the process of obtaining a Board Certification in Swallowing from ASHA SIG-13	I mentored four speech pathologists through the Board Certification process over the course of two years

Laboratory and Other Research Supervisory and Training Responsibilities

09/2013-	Trained and supervised Master's students from the MGH IHP and Harvard SHBT programs (as well as interns) regarding post-processing of patient databases at the MGH Voice Center	1-3 new students are trained per year
01/2016-	Provide research consultation and guidance for post-residency MD otolaryngologists in the MGH Laryngeal Surgery Fellowship Program	1-2 Fellows per year

Formally Supervised Trainees

09/2013-08/2014	Hawazin Aljehani, MGH IHP Master's Thesis, third reader, resulted in a poster presented at the ASHA National Convention
09/2014-08/2015	Amanda Fryd, MGH IHP Master's Thesis, fourth reader, resulted in a meritorious poster and article in the Journal of Speech, Language, and Hearing Research.

09/2014-08/2015	Jennylee Diaz, MGH IHP Master's Thesis, trained to acquire and implement research protocols on patients with voice disorders
09/2015-08/2016	Marc Maffei, MGH IHP Master's thesis, third reader, resulted in a meritorious poster at the ASHA National Convention and 1 published article
10/2015-09/2016	Maria L. V. Masson, HMS Postdoctoral Student, trained on psychometrics and biostatistics, resulted in a published article
06/2017-09/2017	Silvia Capobianco, HMS Armenise-Ghislieri College Harvard Fellow, primary advisor, resulted in poster and manuscript in submission.
08/2016-08/2018	Robert Ruggles, MGH IHP Master's thesis, primary advisor, resulted in a manuscript recently submitted for publication on a singing detector
07/2017-07/2018	Lauren Tracy, HMS laryngeal surgery fellow, statistical and research design mentor, resulted in 1 conference presentation and 3 published research papers.
05/2018-08/2019	Samantha Kridgen, MGH IHP Master's thesis, primary advisor, working on identifying patient subgroups (vocal hyperfunction) based on events associated with disorder onset
05/2018-08/2019	Allison Aaron, MGH IHP Master's thesis, primary advisor, working on identifying trends in ambulatory voice use when patients say their vocal status has changed.
05/2018-08/2019	Madeline Piela, MGH IHP Master's thesis, committee member, working on identifying vocal correlates of stress and cognitive load
05/2018-08/2019	Thomas Whittico, MGH IHP Master's thesis, committee member, working on characterizing the relationship between environmental noise and voice
05/2019-current	Chuanbing Huo, MGH IHP Master's thesis, primary advisory, working on identifying objective measures that discriminate baseline and improved voicing during therapy.
08/2017-current	Laura Toles, MGH IHP Ph.D. thesis, Co-advisor, working on linking personality, autonomic arousal, and voice use with vocal hyperfunction

Formal Teaching of Peers (e.g., CME and other continuing education courses)

07/2014	Direct comparison of three commercially available devices for voice ambulatory monitoring and biofeedback Perspectives on Voice Disorders Vol. 24, July 2014 (ASHA SIG-3)	Online, USA
01/2015	1. A Taxonomy of Voice Therapy 2. Effect of ambulatory voice biofeedback on the daily performance and retention of a modified vocal behavior Concepts in Voice Therapy (ASHA)	Online, USA
03/2017	Recent innovations in voice assessment expected to impact the clinical management of voice disorders Perspectives on Voice Disorders Vol. 2, March 2017 (ASHA-SIG3)	Online, USA

Local Invited Presentations

No presentations below were sponsored by outside entities

05/2011 Vocal health and singing: Medical perspective
Department of Vocal Studies at Curtis Institute of Music, Philadelphia, PA

09/2014 The voice therapy taxonomy
Department of Speech Language Pathology at Massachusetts General Hospital, Boston, MA

10/2014 Variability in vocal motor learning
Action Lab, College of Science at Northeastern University, Boston, MA

11/2016 The voice therapy taxonomy
Department of Rehabilitation at Christiana Care Health System, Newark, DE

Report of Regional, National and International Invited Teaching and Presentations

No presentations below were sponsored by outside entities

Invited Presentations and Courses

Regional

09/2015 Development of a virtual environment to investigate variability and vocal motor learning
Boston Speech Motor Control Working Group, Boston, MA

08/2016 Learning a redundant vocal skill in a virtual environment
Joint Lab Day (Northeastern's Action Lab and MIT's Newman Lab), Boston, MA

10/2017 Beyond a simple narrative: how to describe your swallowing and voice treatments
New England Symposium for Speech-Language Pathologists, Worcester, MA

02/2018 The process of taxonomy development for rehabilitation
MGH Institute of Health Professions PhD Seminar, Charlestown, MA

02/2019 Differences in ambulatory vocal behavior between patients with phonotraumatic lesions and matched health controls
MGH Institute of Health Professions PhD Seminar, Charlestown, MA

National

11/2016 Performing Voice Therapy in the 21st Century
ASHA National Convention, Philadelphia, PA

04/2017 Technological advances in voice disorder assessment and treatment
College of Science and Mathematics at Georgia Southern University, Statesboro, GA

10/2018 Using motor learning theory to bridge vocal techniques from the clinic into the working environment
2018 Fall Voice Conference, Seattle, WA

11/2018 Use of ambulatory voice biofeedback in patients with bilateral vocal fold nodules
2018 ASHA National Convention, Boston, MA

02/2019 Potential clinical applications of ambulatory voice monitoring and biofeedback in patients with vocal hyperfunction
University of California San Francisco Voice & Swallowing Center Rounds, San Francisco, CA

10/2019 What is necessary and sufficient for successful voice therapy?
2019 Fall Voice Conference, Dallas, TX

International

10/2017 A taxonomy of voice therapy
School of Rehabilitation Science at McMaster University, Hamilton, Ontario, Canada

03/2019 Keynote: Interdisciplinary research in occupational voice disorders
6th Occupational Voice Symposium, University of College London, London, England

Report of Clinical Activities and Innovations

Current Licensure and Certification

01/2008- Certificate of Clinical Competence for Speech-Language Pathologists (CCC-SLP); ASHA

01/2008-12/2012 Professional Speech Language Pathologist, Delaware Division of Professional Regulation's Board of Speech Pathologists, Audiologists, and Hearing Aid Dispensers, Delaware, USA

05/2012-05/2017 Board Certified Specialist – Swallowing disorders, ASHA-SIG13, USA

09/2012- Professional Speech Language Pathologist, Massachusetts Board of Registration for Speech-Language Pathology and Audiology, Massachusetts, USA

Practice Activities

01/2008-12/2009	Acute care, acute rehab and outpatient speech language pathology assessment and treatment	Christiana Care Health Systems and Wilmington Hospital, Delaware	5 days per week

01/2010-07/2012	Videofluoroscopic swallow studies, Fiberoptic Endoscopic Evaluations of Swallowing, Speech Pathology assessment and treatment for patients undergoing head/neck cancer treatment	Christiana Care Health Systems – Helen F. Graham Cancer Center, Newark, DE	5 days per week
09/2012-current	Voice evaluations, videostroboscopy, voice therapy, and endoscopic screenings for Boston Conservatory	MGH Center for Laryngeal Surgery and Voice Rehabilitation, Boston, MA	< ½ day per week

Clinical Innovations

A taxonomy of voice therapy. Currently behavioral treatment ingredients provided during voice therapy cannot be validly or reliably identified (which is a common problem in the field of rehabilitation). This taxonomy has been developed at the MGH Voice Center with the consultation and assistance of a national group of voice therapy experts. Locally, it has already been implemented as an electronic documentation form at Boston University and the MGH Voice Center. Nationally, the voice therapy taxonomy has been extensively discussed in two large rehabilitation taxonomy endeavors – the Rehabilitation Treatment Taxonomy and the American Speech-Language-Hearing Association's Ad-hoc Committee on treatment provision in medical speech pathology.

Report of Technological and Other Scientific Innovations

Voice Health Monitor	No patent Participated in the development of this software app on an Android smartphone that permits recording and real-time processing of voice-use data in a patient's daily life. Many voice disorders are believed to be caused by voice use in daily life, therefore assessment may be greatly enhanced with this device. Furthermore, carryover of improved vocal behavior outside the therapy session is difficult and ambulatory biofeedback with this device may significantly improve voice therapy effectiveness.
Voice Therapy Taxonomy Electronic Documentation Form	No patent Currently behavioral treatment ingredients provided in voice therapy cannot be reliably or validly identified. This electronic documentation system has the potential to improve the clarity and usefulness of voice therapy documentation by providing standardized terminology support by widely accepted theoretical underpinnings.

Rehabilitation Treatment Specification Manual	Copyrighted, no patent Uncertainty surrounding behavioral treatment ingredients is a critical barrier to the progress of all behaviorally based healthcare professions. To help alleviate this ambiguity, the Rehabilitation Treatment Specification Manual details the Rehabilitation Treatment Specification System, which is a theoretically-driven method for specifying any rehabilitation treatment.

Report of Scholarship

Publications

Peer reviewed publications in print or other media

Research Investigations:

1. M. Ghassemi, **J. H. Van Stan**, D. D. Mehta, M. Zanartu, H. A. Cheyne,s R. E. Hillman, J. V. Guttag (2014). Learning to detect vocal hyperfunction from ambulatory neck-surface acceleration features: Initial results for vocal fold nodules. *IEEE Transactions on Biomedical Engineering*, 61 (6), 1668-1675.
2. J. T. Van Stan, **J. H. Van Stan**, D. F. Levia (2014). Meteorological influences on stemflow generation across diameter size classes of two morphologically distinct deciduous species. *International Journal of Biometeorology*, 58 (10), 2059-2069.
3. Y-A. S. Lien, C. R. Calabrese, C. M. Michener, E. H. Murray, **J. H. Van Stan**, ... C. E. Stepp (2015). Voice relative fundamental frequency via neck-skin acceleration in individuals with voice disorders. *Journal of Speech Language and Hearing Research*, 58 (5), 1482-1487.
4. A. F. Llico, M. Zanartu, A. J. Gonzalez, G. R. Wodicka, D. D. Mehta, **J. H. Van Stan**, R. E. Hillman (2015). Real-time estimation of aerodynamic features for ambulatory voice biofeedback. *The Journal of the Acoustical Society of America*, 138 (1), EL14-EL19.
5. D. D. Mehta, **J. H. Van Stan**, M. Zanartu, M. Ghassemi, J. V. Guttag, V. M. Espinoza, J. P. Cortes, H. A. Cheyne, R. E. Hillman (2015). Using ambulatory monitoring to investigate common voice disorders: Research update. *Frontiers in Bioengineering and Biotechnology*, 3 (155), 1-14.
6. D. D. Mehta, **J. H. Van Stan**, R. E. Hillman (2015). Relationships between vocal function measures derived from an acoustic microphone and a subglottal neck-surface accelerometer. *IEEE/ACM Transactions on Audio, Speech and Language Processing*, 24 (4), 659-668.
7. **J. H. Van Stan**, D. D. Mehta, S. M. Zeitels, J. A. Burns, A. M. Barbu, R. E. Hillman (2015). Average ambulatory measures of sound pressure level, fundamental frequency, and vocal dose do not differ between adult females with phonotraumatic lesions and matched control subjects. *Annals of Otology, Rhinology, and Laryngology,* 124 (11), 864-874.
8. **J. H. Van Stan**, N. Roy, S. Awan, J. Stemple, R. E. Hillman (2015). A voice therapy taxonomy. *American Journal of Speech Language Pathology*, 24 (2), 101-125.
9. **J. H. Van Stan**, D. D. Mehta, R. E. Hillman (2015). The effect of voice ambulatory voice biofeedback on the daily performance and retention of a modified vocal behavior in participants with normal voices. *Journal of Speech Language and Hearing Research*, 58 (3), 713-721.
10. A. S. Fryd, **J. H. Van Stan**, R. E. Hillman, D. D. Mehta (2016). Estimating subglottal pressure

from neck-surface acceleration during normal voice production. *Journal of Speech Language and Hearing Research,* 59 (6), 1335–1345.

11. Y-A. S. Lien, E. S. Heller Murray, C. R. Calabrese, C. M. Michener, **J. H. Van Stan**, D. D. Mehta, R. E. Hillman, J. P. Noordzij, C. E. Stepp (2017). Validation of an algorithm for semi-automated estimation of voice relative fundamental frequency. *Annals of Otology, Rhinology & Laryngology*, 126 (10), 712-716.
12. E. S. Heller Murray, Y-A. S. Lien, **J. H. Van Stan**, D. D. Mehta, R. E. Hillman, J. P. Noordzij, C. E. Stepp (2017). Relative fundamental frequency distinguishes between phonotraumatic and non-phonotraumatic vocal hyperfunction. *Journal of Speech Language and Hearing Research*, 60 (4), 1507-1515.
13. M. Borsky, D. D. Mehta, **J. H. Van Stan**, J. Gudnasson (2017). Modal and Nonmodal voice quality classification using acoustic and electroglottographic features. *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, 25 (12), 2281-2291.
14. V. M. Espinoza, M. Zanartu, **J. H. Van Stan**, D. D. Mehta, R. E. Hillman (2017). Glottal aerodynamic measures in adult females with phonotraumatic and non-phonotraumatic vocal hyperfunction. *Journal of Speech, Language and Hearing Research*, 60 (8), 2159–2169.
15. **J. H. Van Stan**, D. D. Mehta, R. J. Petit, D. Sternad, J. Muise, J. A. Burns, R. E. Hillman (2017). Integration of motor learning principles into real-time ambulatory voice biofeedback and example implementation via a clinical case study with vocal fold nodules. *American Journal of Speech Language Pathology,* 26 (1), 1–10.
16. **J. H. Van Stan**, D. D. Mehta, D. Sternad, R. J. Petit, R. E. Hillman (2017). Ambulatory voice biofeedback: relative frequency and summary feedback effects on performance and retention of reduced vocal intensity in the daily lives of participants with normal voices. *Journal of Speech Language and Hearing Research,* 60 (4), 853-864.
17. **J. H. Van Stan**, S-W Park, M. Jarvis, D. D. Mehta, R. E. Hillman, and D. Sternad (2017). Measuring vocal motor skill with a virtual voice-controlled slingshot. *The Journal of the Acoustical Society of America,* 142 (3), 1199-1212.
18. **J. H. Van Stan**, M. Maffei, M. L. Vaz Masson, D. D. Mehta, J. A. Burns, R. E. Hillman (2017). Self-ratings of vocal status in daily life: Reliability and validity for patients with vocal hyperfunction and a normative group. *American Journal of Speech-Language Pathology,* 26 (4), 1167-1177.
19. L. F. Tracy, T. A. Hron, **J. H. Van Stan**, J. A. Burns (2018). Wound healing after transoral angiolytic laser surgery for early glottis carcinoma. *The Laryngoscope,* 129 (2), 425-440.
20. T. Hart, M. P. Dijkers, J. Whyte, L. Turkstra, J. M. Zanca, A. Packel, **J. H. Van Stan**, M. K. Ferraro, C Chen (2018). A theory-driven system for the specification of rehabilitation treatments. *Archives of Physical Medicine and Rehabilitation*, 100 (1), 172-180.
21. **J. H. Van Stan**, M. P. Dijkers, J. Whyte, T. Hart, L. Turkstra, J. M. Zanca, C. Chen (2018). The Rehabilitation Treatment Specification System: Implications for improvements in research design, reporting, replication, and synthesis. *Archives of Physical Medicine and Rehabilitation*, 100 (1), 146-155.
22. J. Whyte, M. P. Dijkers, T. Hart, **J. H. Van Stan**, A. Packel, L. Turkstra, J. M. Zanca, C. Chen, M. K. Ferraro (2018). The importance of voluntary behavior in rehabilitation treatment and

outcomes. *Archives of Physical Medicine and Rehabilitation*, 100 (1), 156-163.

23. J. M. Zanca, L. Turkstra, C. Chen, A. Packel, M. K. Ferraro, T. Hart, **J. H. Van Stan**, J. Whyte, M. P. Dijkers (2018). Advancing rehabilitation practice through improved specification of interventions. *Archives of Physical Medicine and Rehabilitation*, 100 (1), 164-171.
24. L. F. Tracy, P. E. Kwak, S. J. Bayan, **J. H. Van Stan,** J. A. Burns (2018). Vocal fold motion recovery in patients with iatrogenic unilateral immobility: Cervical versus thoracic injury. *The Annals of Otology, Rhinology, and Laryngology*, 128 (1), 44-49.
25. J. P. Cortes, V. M. Espinoza, M. Ghassemi, D. D. Mehta, **J. H. Van Stan**, R. E. Hillman, J. V. Guttag, M. Zanartu (2018). Ambulatory assessment of phonotraumatic vocal hyperfunction using glottal airflow measures estimated from neck-surface acceleration. *PLoS ONE*, 13 (12), e0209017.
26. L. F. Tracy, J. B. Kobler, **J. H. Van Stan**, J. A. Burns (In Press). Carbon debris and fiber cleaving: Effects on KTP laser energy and CAM model vessel coagulation. *The Laryngoscope*.
27. D. D. Mehta, V. M. Espinoza, **J. H. Van Stan**, M. Zanartu, R. E. Hillman (In Press). The difference between first and second harmonic amplitudes correlates between glottal airflow and neck-surface accelerometer signals during phonation. *The Journal of the Acoustical Society of America Express Letters*.

Other peer-reviewed publications (e.g., case reports, full-length manuscript proceedings):

1. D. D. Mehta, M. Zanartu, **J. H. Van Stan**, S. W. Feng, H. A. Cheyne II, R. E. Hillman (2013). Smartphone-based detection of voice disorders by long-term monitoring of neck acceleration features. *Proceedings of the 10th Annual Body Sensor Networks Conference*, Cambridge, MA.
2. M. Zanartu, V. Espinoza, D. D. Mehta, **J. H. Van Stan**, ... R. E. Hillman (2013). Toward an objective aerodynamic assessment of vocal hyperfunction using a voice health monitor. *Proceedings of the 8th International Workshop on Models and Analysis of Vocal Emissions for Biomedical Applications*, Firenze, Italy.
3. A. F. Llico, M. Zanartu, D. D. Mehta, **J. H. Van Stan**, ... R. E. Hillman (2013). Incorporating real-time biofeedback capabilities into a voice health monitor. *Proceedings of the 8th International Workshop on Models and Analysis of Vocal Emissions for Biomedical Applications*, Firenze, Italy.
4. **J. H. Van Stan**, J. Gustafsson, E. Schalling, R. E. Hillman (2014). Direct comparison of three commercially available devices for voice ambulatory monitoring and biofeedback. *SIG 3 Perspectives on Voice and Voice Disorders*, 24 (2), 80-86.
5. M. Ghassemi, Z. Syed, D. D. Mehta, **J. H. Van Stan**, R. E. Hillman, J. Guttag (2016). Uncovering voice misuse using symbolic mismatch. *Journal of Machine Learning Research: Workshop and Conference Proceedings*, 56, 1488–1492.
6. **J. H. Van Stan**, D. D. Mehta, R. E. Hillman (2017). Recent innovations in voice assessment expected to impact the clinical management of voice disorders. *SIG 3 Perspectives on Voice and Voice Disorders*, 2(1), 4-13.
7. J. Whyte, M. P. Dijkers, **J. H. Van Stan**, T. Hart (2018). Specifying what we study and implement in rehabilitation: Comments on the reporting of clinical research. *Archives of Physical Medicine and Rehabilitation*, 99 (7), 1433-1435.
8. G. Ciccarelli, D. D. Mehta, A. J. Ortiz, **J. H. Van Stan**, L. E. Toles, K. Marks, R. E. Hillman, T. Quatieri (In Press). Correlating an ambulatory voice measure to electrodermal activity in patients with vocal hyperfunction. *Proceedings of the 16th Annual Body Sensor Networks Conference*,

Chicago, IL.

Non-peer reviewed scientific or medical publications/materials in print or other media

Book Chapter:

1. T. Stadelman-Cohen, **J. H. Van Stan**, R. E. Hillman (2014). Use of ambulatory biofeedback to supplement traditional voice therapy for treating primary muscle tension dysphonia in an adult female. In J. Stemple & E. Hapner (Eds.), *Voice Therapy: Clinical Case Studies*, Fourth Edition, San Diego, CA: Plural Publishing.
2. D. D. Mehta, **J. H. Van Stan** (2017). Ambulatory phonation monitoring. In J. Damico & M. Ball (Eds.), *The SAGE Encyclopedia of Human Communication Sciences and Disorders*, Thousand Oaks, CA: SAGE Publications.

Magazine article:

1. **J. H. Van Stan** (In Press). Trying to decipher how motor learning concepts are used in voice therapy. In M. Sandage (Ed.), *The Voice*.

Thesis

J. H. Van Stan (2016). Performance and retention of a modified vocal behavior using ambulatory voice biofeedback and motor learning principles in subjects with normal voices (Doctoral Dissertation, MGH Institute of Health Professions).

Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings

Meritorious:

1. A. S. Fryd, **J. H. Van Stan**, R. E. Hillman, D. D. Mehta (2015). Estimating subglottal pressure during phonation with a neck-surface accelerometer sensor. ASHA National Convention, Denver, CO.
2. M. Maffei, **J. H. Van Stan**, R. E. Hillman, D. D. Mehta (2016). Correlating ambulatory voice measures with vocal fatigue self-ratings in individuals with muscle tension dysphonia and matched controls. ASHA National Convention, Philadelphia, PA.

Presentations at meetings in last three years:

1. R. E. Hillman, D. D. Mehta, C. E. Stepp, **J. H. Van Stan**, M. Zanartu (2016). Objective assessment of vocal hyperfunction. The Journal of the Acoustical Society of America, 139 (4), 2193-2194.
2. J. P. Cortes, V. Espinoza, M. Zanartu, M. Ghassemi, J. V. Guttag, D. D. Mehta, **J. H. Van Stan**, R. E. Hillman (2016). Discriminating patients with vocal fold nodules from matched controls using acoustic and aerodynamic features from ambulatory voice monitoring data. 10th International Conference on Voice Physiology and Biomechanics, Valparaiso, Chile.

3. E. S. Heller-Murray, Y-A. S. Lein, **J. H. Van Stan**, D. D. Mehta, R. E. Hillman, J. P. Noordzij, C. E. Stepp (2016). Relative fundamental frequency distinguishes between phonotraumatic and nonphonotraumatic vocal hyperfunction. 10th International Conference on Voice Physiology and Biomechanics, Valparaiso, Chile.
4. V. M. Espinoza, M. Zanartu, **J. H. Van Stan**, D. D. Mehta, R. E. Hillman (2016). Detecting hyperfuncation female voices using inverse filtered aerodynamic measures. 10th International Conference on Voice Physiology and Biomechanics, Valparaiso, Chile.
5. D. D. Mehta, **J. H. Van Stan**, M. L. V. Masson, M. Maffei, R. E. Hillman (2017). Relating ambulatory voice measures with self-ratings of vocal fatigue in individuals with phonotraumatic vocal hyperfunction. 173rd Meeting of the Acoustical Society of America, Boston, MA.
6. **J. H. Van Stan**, M. Maffei, M. L. V. Masson, D. D. Mehta, R. E. Hillman (2017). Self-ratings of vocal status in daily life: Reliability and Validity for patients with vocal hyperfunction and a normative group. Occupation Voice Symposium, London, England.
7. **J. H. Van Stan**, D. D. Mehta, D. Sternad, R. Petit, R. E. Hillman (2017). Ambulatory voice biofeedback: effect of feedback modification on reducing vocal intensity of nurses in an intensive care unit. Occupation Voice Symposium, London, England.
8. **J. H. Van Stan**, L. Turkstra (2017). How to describe speech-language pathology treatments using the interdisciplinary Rehabilitation Treatment Specification System. ASHA National Convention, Los Angeles, CA.
9. L. F. Tracy, T. A. Hron, **J. H. Van Stan,** J. A. Burns (2018). Wound healing after transoral angiolytic laser surgery for early glottic carcinoma. Combined Otolaryngology Spring Meetings: American Larygological Association, Washington, DC.
10. **J. H. Van Stan**, S. Capobianco, R. Ruggles, A. J. Ortiz, L. E. Toles, K. L. Marks, R. E. Hillman, D. D. Mehta (2018). Ambulatory voice measuring during singing and speech in patients with phonotraumatic vocal fold lesions compared to matched controls. Voice Foundation Symposium, Philadelphia, PA.
11. M. Brockmann-Bauser, J. E. Bohlender, **J. H. Van Stan**, D. D. Mehta (2018). Effect of vocal intensity on cepstral peak prominence and spectral slope in women with and without voice disorders. Voice Foundation Symposium, Philadelphia, PA.
12. J. P. Cortes, V. Espinoza, M. Ghassemi, D. Mehta, **J. H. Van Stan**, Robert Hillman, John Guttag, Matias Zañartu (2018). Using aerodynamic features and their uncertainty for the ambulatory assessment of phonotraumatic vocal hyperfunction. IEEE International Conference on Biomedical and Health Informatics, Las Vegaa, NV.
13. V. M. Espinoza, **J. H. Van Stan**, D. D. Mehta, R. E. Hillman, M. Zanartu (2018). Accelerometer-based aerodynamic measures for subjects with phonotraumatic hyperfunction: An in-laboratory study. 11th International Conference on Voice Physiology and Biomechanics, East Lansing, MI.
14. D. D. Mehta, **J. H. Van Stan**, R. E. Hillman (2018). Toward objective ambulatory measures of vocal status in patients with vocal hyperfunction. 11th International Conference on Voice Physiology and Biomechanics, East Lansing, MI.
15. **J. H. Van Stan**, T. Stadelman-Cohen, J. Muise, C. Krusemark, A. J. Ortiz, D. D. Mehta, J. A. Burns, T. A. Hron, R. E. Hillman (2019). Personalized ambulatory biofeedback for patients with vocal hyperfunction. Occupational Voice Symposium, London, UK.

16. D. D. Mehta, T. H. Whittico, A. J. Ortiz, K. L. Marks, L. E. Toles, **J. H. Van Stan**, R. E. Hillman (2019). Investigating ambulatory Lombard effects during the daily life of patients with phonotraumatic vocal hyperfunction. Occupational Voice Symposium, London, UK.
17. **J. H. Van Stan**, M. Vangel, D. D. Mehta, A. J. Ortiz, J. A. Burns, L. E. Toles, K. L. Marks, R. E. Hillman (2019). Differences in ambulatory vocal behavior between patients with phonotraumatic lesions and matched health controls. 13th Advances in Quantitative Laryngology, Montreal, Canada.
18. J. P. Cortez, G. Alzamendi, A. Weinstein, J. E. Yuz, V. Espinoza, D. D. Mehta, **J. H. Van Stan**, R. E. Hillman, M. Zanartu (2019). Uncertainty of ambulatory airflow estimates and its effect on the classification of phonotraumatic vocal hyperfunction. 13th Advances in Quantitative Laryngology, Montreal, Canada.
19. V. M. Espinoza, D. D. Mehta, **J. H. Van Stan**, R. E. Hillman, M. Zanartu (2019). Contrasting accelerometer and oral airflow based aerodynamic measures in patients with vocal hyperfunction. 13th Advances in Quantitative Laryngology, Montreal, Canada.
20. A. Packel, **J. H. Van Stan**, M. Ferraro, C. Chen, J. Whyte (2019). Rehabilitation treatment specification system – Part 2 – Initial use in education, clinic, and research. Annual Conference of the American Congress of Rehabilitation Medicine, Chicago, IL.

Narrative Report

Currently the majority of my time is oriented towards clinical research projects at the MGH Voice Center; with additional effort directed towards education/training of HMS laryngology fellows at the MGH Voice Center, Ph.D. students from the SHBT program at HMS, and Ph.D. and master's students from the MGH IHP.

In my role as a research speech language pathologist, I am involved in research projects funded through federal agencies (National Institute of Health [NIH NIDCD] and the Patient-Centered Outcomes Research Institute [PCORI]). More specifically, NIH grants have funded my work on developing ambulatory voice monitoring technology in hopes to improve clinical assessment and treatment of voice disorders. PCORI has funded my involvement in a national endeavor to improve behavioral therapy measurement throughout the field of rehabilitation by refining the Rehabilitation Treatment Taxonomy (RTT). My individual contribution to the RTT endeavor is incorporating clinical expertise from my work in developing treatment taxonomies for the field of speech pathology and voice therapy.

In terms of teaching and education, I am involved in providing research mentorship for PhD students in the Speech and Hearing Bioscience and Technology Program in the Division of Medical Sciences at Harvard Medical School, and for post-residency Fellows in Laryngeal Surgery at the MGH Voice Center. I also help direct the Master's theses of 1-2 speech language pathology students per year (students from the MGH Institute of Health Professions). In addition, four of my first-author articles in the past 3 years have been used for national-level online education series/continuing education credits.