

James C. Borders

M.S. CCC-SLP

I'm a speech pathologist and doctoral student at Teachers College, Columbia University. My research focuses on the rehabilitation of impairments in airway protection, namely cough (dystussia) and swallowing (dysphagia) dysfunction, to improve health outcomes and quality of life. I have worked clinically in inpatient and outpatient settings, specializing in the assessment and treatment of dysphagia across a variety of patient populations, including neurological, oncological, gastrointestinal, and respiratory disorders.



Education

- Present | 2019
● PhD Student, Communication Sciences & Disorders
Teachers College, Columbia University
New York, NY
- 2016 | 2014
● M.S., Speech-Language Pathology
MGH – Institute of Health Professions
Boston, MA
 - Thesis: A developmental examination of feedback processing during declarative learning
 - Concentration in Medical Speech Pathology
- 2014 | 2010
● B.A., Psychology
College of the Holy Cross
Worcester, MA
 - Cum Laude
 - Minor in Deaf Studies

Research Positions

- Present | 2019
● Clinical Researcher & Doctoral Student
Laboratory for the Study of Upper Airway Dysfunction
Teachers College, Columbia University
PI: Michelle Troche
- 2016 | 2015
● Graduate Research Assistant
Department of Brain & Cognitive Sciences
Massachusetts Institute of Technology
PI: Pawan Sinha
- 2016 | 2014
● Graduate Research Assistant
Cognitive Neuroscience Group
MGH – Institute of Health Professions
PI: Yael Arbel

Contact

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- 🐦 [jamescborders](https://twitter.com/jamescborders)
- 📄 Google Scholar

Research Interests

- 🧠 Airway Protection
- 🧠 Motor Learning
- 🧠 Meta-Science

Updated 2022-02-11.

2014
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2010

- Research Assistant
Department of Psychology
College of the Holy Cross
PIs: Mark Hallahan & Richard Schmidt

Clinical Positions

2019
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2017

- Speech Pathologist
Voice and Swallow Clinic
Boston Medical Center
Boston, MA

2017
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2016

- Speech Pathology Clinical Fellow
Department of Otolaryngology
University of Wisconsin – Madison
Madison, WI

Grant Support

2015

- Christopher Norman Research Fund
MGH - Institute of Health Professions
Awarded \$200 to support dissertation project
Role: PI

2012

- Andrew W. Mellon Research Fellowship
College of the Holy Cross
Awarded \$5000 to support summer research project
Role: PI

Publications

2022

- Curtis, J. A., **Borders, J. C.**, & Troche, M. S. (2022). Visual analysis of swallowing efficiency and safety (VASES): Determination of criterion and concurrent validity. *American Journal of Speech-Language Pathology*. https://doi.org/10.1044/2021_AJSLP_21_00116

2021

- **Borders, J. C.** & Troche, M. S. (2021). Voluntary cough effectiveness and airway clearance in neurodegenerative disease. *Journal of Speech, Language, and Hearing Research*. E-Pub Ahead of Print. https://doi.org/10.1044/2021_JSLHR_21_00308
- **Borders, J. C.**, Curtis, J. A., Seviz, J. S., Vanegas-Arroyave, N., Troche, M. S. (2021). Sensorimotor cough dysfunction is prevalent and pervasive in progressive supranuclear palsy. *Movement Disorders*. E-Pub Ahead of Print. <https://10.1002/mds.28707>
- Perry, S. E., **Borders, J. C.**, Dakin, A. E., & Troche, M. S. (2021). Characterizing quality of life in caregivers of people with Parkinson's Disease and dysphagia. *Dysphagia*. E-Pub Ahead of Print. https://10.1007/s00455_021_10299_z
- Curtis, J. A., **Borders, J. C.**, Perry, S. E., Dakin, A. E., Seikaly, Z., & Troche, M. S. (2021). Visual analysis of swallowing efficiency and safety (VASES): A standardized approach to rating pharyngeal residue, penetration, and aspiration during FEES. *Dysphagia*. E-Pub Ahead of Print. https://10.1007/s00455_021_10293_5

- Borders, J. C.**, Curtis, J. A., Sevit, J. S., Vanegas-Arroyave, N., Troche, M. S. (2021). Immediate effects of sensorimotor training in airway protection (smTAP) on cough outcomes in progressive supranuclear palsy: A feasibility study. *Dysphagia*. E-Pub Ahead of Print. https://10.1007/s00455_021_10251_1
- Borders, J. C.**, Sevit, J. S., Malandraki, J. B., Malandraki, G. A., & Troche, M. S. (2020). Objective and subjective clinical swallowing outcomes via telehealth: Reliability in outpatient clinical practice. *American Journal of Speech-Language Pathology*. 30(2), 598-608. https://10.1044/2020_AJSLP_20_00234
- Borders, J. C.**, Brandimore, A. E., & Troche, M. S. (2020). Variability of voluntary cough airflow in healthy adults and Parkinson's disease. *Dysphagia*. 36(4), 700-706. https://10.1007/s00455_020_10190_3
- Enver, N., **Borders, J. C.**, Curtis, J. A., Sevit, J. S., Vanegas-Arroyave, N., & Troche, M. S. (2020). The role of vocal fold bowing on cough and swallowing dysfunction in progressive supranuclear palsy. *The Laryngoscope*. 131(6), 1217-1222. <https://10.1002/lary.28885>
- Borders, J. C.**, Blanke, S., Johnson, S., Gilmore-Bykoyski, A., & Rogus-Pulia, N. (2020). Efficacy of mealtime interventions for malnutrition and oral intake in persons with dementia: A systematic review. *Alzheimer's Disease & Associated Disorders*; 34(4), 366 – 379. <https://10.1097/WAD.0000000000000387>
- Borders, J. C.**, O'Dea, M. B., McNally, E., Norberg, E., Kitila, M., Walsh, M., Lui, R., & Pisegna, J. M. (2020). Inter- and intra-rater reliability of laryngeal sensation testing with the touch method during flexible endoscopic evaluations of swallowing. *Annals of Otology, Rhinology & Laryngology*; 129(6): 565 – 571. <https://10.1177/0003489419901145>
- Borders, J. C.** & Brates, D. (2019). Use of the penetration-aspiration scale in dysphagia research: A systematic review. *Dysphagia*; 35(4): 583 – 597. https://10.1007/s00455_019_10064_3
- Borders, J. C.**, Fink, D., Levitt, J. E., McKeenhan, J., McNally, E., Rubio, A., ... Krisciunas, G. P. (2019). Relationship between laryngeal sensation, length of intubation, and aspiration in patients with acute respiratory failure. *Dysphagia*; 34(4): 521 – 528. https://10.1007/s00455_019_09980_1
- Stipancic, K. L., **Borders, J. C.**, Brates, D., & Thibeault, S. L. (2019). Prospective investigation of incidence and co-occurrence of dysphagia, dysarthria, and aphasia following ischemic stroke. *American Journal of Speech-Language Pathology*; 28(1): 188 – 194. https://10.1044/2018_AJSLP_18_0136
- Pisegna, J. M., **Borders, J. C.**, Kaneoka, A., Coster, W. J., Leonard, R., & Langmore, S. E. (2018). Reliability of untrained and experienced raters on FEES: Rating overall residue is a simple task. *Dysphagia*; 33(5): 645 – 654. https://10.1007/s00455_018_9883_x
- Borders, J. C.**, Gibson, A. L., Grayev, A., & Thibeault, S. L. (2018). Predictors of dysphagia in critically injured patients with neck trauma. *Journal of Critical Care*; 44: 312 – 317. <https://10.1016/j.jcrc.2017.12.004>



Publications Under Review & Revision

- Borders, J. C.**, Grande, A., & Troche, M. S. (In Revision). Statistical power and swallowing rehabilitation research: Current landscape and next steps.
- Borders, J. C.**, Sevit, J. S., Curtis, J. A., Vanegas-Arroyave, N., & Troche, M. S. Quantifying swallowing safety and efficiency impairments in progressive supranuclear palsy.
- El Amin, M., **Borders, J. C.**, Long, H. L., Keller, M. A., & Kearney, E. Open science practices in communication sciences and disorders: A survey.

- Sevitz, J. S., **Borders, J. C.**, Dakin, A. E., Alcalay, R. N., Kuo, S., & Troche, M. S. Rehabilitation of airway protection in movement disorders: A telehealth feasibility study.
- Curtis, J. A., **Borders, J. C.**, Dakin, A. E., & Troche, M. S. Auditory-perceptual cough assessments: A prospective study characterizing reliability and the effects of standardized training in novice speech-language pathologists.
- Curtis, J. A., **Borders, J. C.**, Dakin, A. E., & Troche, M. S. The role of aspiration amount on airway protective responses in people with neurogenic dysphagia.

Refereed Presentations

- 2022
- **Borders, J.C.** & Troche, M.S. Effects of Expiratory Muscle Strength Training on Cough Peak Flow: A Meta-Analysis. Poster presentation at Dysphagia Research Society, March 2022, Online.
 - Sevitz, J.S., Perry, S.E., **Borders, J.C.**, Dakin, A.E., Troche, M.S. The relationship between lingual strength and functional swallowing outcomes in Parkinson's disease. Oral Presentation at Dysphagia Research Society Annual Meeting. March 2022, Online.
 - Curtis, J.A., **Borders, J.C.**, Kiefer, B., Huber, J., Troche, M.S. (2022). Influence of Swallowing Condition on Respiratory-Swallow Coordination in Parkinson's Disease: A Prospective Cohort Study. Oral presentation at the Dysphagia Research Society, March 2022, Online.
 - Curtis, J. A., **Borders, J.C.**, Dakin, A. E., & Troche, M. S. Exploring Relationships Between Auditory-Perceptual, Acoustic, and Endoscopic Measures of Cough in Healthy and Dysphagic Adults Poster presentation at the Dysphagia Research Society, March 2022, Online.
 - Curtis, J. A., **Borders, J.C.**, Dakin, A. E., & Troche, M. S. Relationship Between Person-Specific Factors and Respiratory-Swallow Coordination in Parkinson's Disease: A Cross-Sectional Analysis. Poster presentation at the Dysphagia Research Society, March 2022, Online.
- 2021
- **Borders, J. C.**, Hegland, K. W., & Troche, M. S. Motor performance during cough rehabilitation in Parkinson's disease. Oral presentation at the European Society for Swallowing Disorders Conference, November 2021. Online.
 - **Borders, J. C.**, Grande, A. A., & Troche, M. S. Betrayed by aggregation: Maximum penetration-aspiration scale scores reduce statistical power and bias effect size estimates. Oral presentation at the European Society for Swallowing Disorders Conference, November 2021. Online.
 - Troche, M. S., Curtis, J. A., Dakin, A. E., Sevitz, J. S., **Borders, J. C.**, Perry, S. E., Vanegas-Arroyave, N., & Hegland, K. W. Sensorimotor training for airway protection (smTAP) versus expiratory muscle strength training (EMST) to rehabilitate cough and swallowing in Parkinson's disease: A clinical trial. Oral presentation at the European Society for Swallowing Disorders Conference, November 2021. Online.
 - Dakin, A. E., **Borders, J. C.**, Curtis, J. A., Hegland, K. W., & Troche, M. S. Does change in maximal expiratory pressure predict change in cough effectiveness after training? A secondary analysis of a randomized controlled trial. Oral presentation at the European Society for Swallowing Disorders Conference, November 2021. Online.
 - Curtis, J. A., **Borders, J. C.**, & Troche, M. S. Visual analysis of swallowing efficiency and safety (VASES): Establishing criterion-referenced validity and concurrent validity. Oral presentation at the European Society for Swallowing Disorders Conference, November 2021. Online.

- Curtis, J. A., **Borders, J. C.**, Dakin, A. E., & Troche, M. S. Reliability of auditory-perceptual assessment of cough amongst novice clinicians. Poster presentation at the European Society for Swallowing Disorders Conference, November 2021. Online.
- Amin, M., Long, H., **Borders, J. C.**, Keller, M., & Kearney, E. Open science practices in communication sciences and disorders. Oral presentation at the American Speech Language Hearing Association Annual Convention. November 2021. Washington, D.C.
- **Borders, J. C.** & Troche, M. S. Statistical power and swallowing rehabilitation research: Current landscape and next steps. Poster presented at the Dysphagia Research Society's Annual Meeting, March 2021. Online.
- **Borders, J. C.**, Curtis, J. A., & Troche, M. S. Is there a recency effect during visuoperceptual FEES analysis? Poster presented at the Dysphagia Research Society's Annual Meeting, March 2021. Online.
- Curtis, J. A., **Borders, J. C.**, Dakin, A. E., & Troche, M. S. The role of aspiration amount on airway protective response in people with neurogenic dysphagia. Oral presentation at the Dysphagia Research Society's Annual Meeting, March 2021. Online.
- Sevitz, J. S., Dakin, A. E., **Borders, J. C.**, & Troche, M. S. Feasibility of device-driven treatment approaches for airway protective deficits via telehealth. Oral presentation at the Dysphagia Research Society's Annual Meeting, March 2021. Online.

2020

- **Borders, J. C.**, Curtis, J. A., Sevitz, J. S., Seikaly, Z., & Troche, M. S. Immediate effects of sensorimotor training in airway protection (smTAP) on cough outcomes in progressive supranuclear palsy. Oral presentation at the Dysphagia Research Society's Annual Meeting, May 2020. Online.
- **Borders, J. C.** & Troche, M. S. Voluntary cough variability and airway invasion in Parkinson's Disease. Poster of merit at the Annual European Society for Swallowing Disorders Conference, October 2020. Online.
- Curtis, J. A., **Borders, J. C.**, Perry, S. E., Dakin, A. E., Zeikaly, Z. N., & Troche, M. S. Visual analysis of swallowing efficiency and safety (VASES): A standardized rating methodology for measuring pharyngeal residue, penetration, and aspiration on FEES. Poster presented at the European Society for Swallowing Disorders Conference, October 2020. Online.
- Enver, N., **Borders, J. C.**, Curtis, J. A., Sevitz, J. S., Vanegas-Arroyave, N., & Troche, M. S. The role of vocal fold bowing on cough and swallowing dysfunction in progressive supranuclear palsy. Oral presentation at the American Broncho-Esophagological Association's Annual Meeting, May 2020. Online.
- Bolowsky, V., Hong, L., **Borders, J. C.**, Vallila-Rohter, S., & Arbel, Y. Strategy implementation and feedback processing in healthy young adults. Poster presented at the Annual Cognitive Neuroscience Society Conference, May 2020. Online.
- Kitila, M., **Borders, J. C.**, & Pisegna, J. M. Reliability and confidence of penetration-aspiration scale ratings during flexible endoscopic evaluations of swallowing (FEES). Poster presented at the Dysphagia Research Society's Annual Meeting, May 2020. Online.

2019

- Buckley, D., Tracy, L. F., **Borders, J. C.**, Norberg, E., Pisegna, J. M. Muscle tension dysphagia: An expanded clinical picture. Oral presentation at the Fall Voice Conference. October 2019. Dallas, Texas.

- O'Dea, M. B., **Borders, J. C.**, McNally, E., Norberg, E., Kitila, M., Walsh, M., Lui, R., & Pisegna, J. M. Inter- and intra-rater reliability of the laryngeal adductor reflex with the touch method during flexible endoscopic evaluation of swallowing. Poster presented at the European Society for Swallowing Disorders Annual Conference, September 2019. Vienna, Italy.
- **Borders, J. C.** & Brates, D. Use of the penetration-aspiration scale in dysphagia research: A historical review. Oral presentation at the Dysphagia Research Society's Annual Meeting. March 2019. San Diego, California.
- Ramirez, E., **Borders, J. C.**, Jijakli, A., & Pisegna, J. M. DHI responses not associated with PAS scores from MBS. Poster presented at the Dysphagia Research Society's Annual Meeting, March 2019. San Diego, California.
- 2018 ● **Borders, J. C.**, Fink, D., Levitt, J. E., McKeenan, J., McNally, E., Rubio, A., ... Krisciunas, G. P. (2018). Relationship between laryngeal sensation, length of intubation, and aspiration in acute respiratory failure survivors. Oral presentation at the American Speech Language Hearing Association Annual Convention. November 2018. Boston, Massachusetts.
- Rogus-Pulia, N., Knigge, M., Young, B., **Borders, J. C.**, Thibeault, S. L., & Sattin, J. Effects of device-facilitated lingual strengthening therapy on swallowing related outcomes post-stroke: a pilot study. Poster presented at the Dysphagia Research Society's Annual Meeting, March 2018, Baltimore, Maryland.
- 2016 ● Pisegna, J. M., Kaneoka, A., **Borders, J. C.**, & Langmore, S. E. Clinician ratings of residue on FEES: Years of experience does not affect ratings. Poster presented at the European Society of Swallowing Disorders Annual Conference, October 2016, Milan, Italy.
- **Borders, J. C.**, Arbel, Y., Zipse, L., & Vallila-Rohter, S. Feedback processing in paired associate declarative learning of linguistic and nonlinguistic paradigms. Poster presented at the Annual Cognitive Neuroscience Society Conference, April 2016, New York, New York.
- 2015 ● Jamal, W., Jin, D., Cardinaux, A., Tsourides, K., Jabeck, M. C., **Borders, J. C.**, Nejati, H., Gandhi, T. K., Kjellaard, M., & Sinha, P. Reduced anticipatory responses during dynamic object interactions in autism. Poster presented at the International Meeting for Autism Research, May 2015, Salt Lake City, Utah.
- 2013 ● Schmidt, R. C., **Borders, J. C.**, & Hallahan, M. Does motor synchrony really create interpersonal cooperation? Poster presented at the Fifth Joint Action Meeting, July 2013 Berlin, Germany.
- Hallahan, M., **Borders, J. C.**, & Schmidt, R. C. Does motor synchrony really create interpersonal cooperation? Poster presented at the International Conference on Perception and Action, July 2013, Estoril, Portugal.



Teaching Experience

- 2020, 2021 ● BBSQ 5940: Evaluation of Research in Speech-Language Pathology
Teachers College, Columbia University



Honors and Awards

- 2021 ● ASHFoundation New Century Scholars Doctoral Scholarship
- 2020 ● 1st Place Scientific Abstract Oral Presentation, Dysphagia Research Society
- 2020 ● Springer Publishing Junior Investigator Travel Grant, Dysphagia Research Society

- 2016 • Kenneth N. Stevens Student Research Award, MGH - Institute of Health Professions
- 2014 • George J. Allen Psychology Award, College of the Holy Cross
- 2014 • Laurent Clerc Deaf Studies Award, College of the Holy Cross

Service

- Ad-hoc Reviewer
 - Dysphagia
 - Archives of Physical Medicine and Rehabilitation
 - Journal of Parkinson's Disease
 - Journal of Telemedicine and Telecare
 - Annals of Otology, Rhinology & Laryngology
 - Annals of the American Thoracic Society
- 2020 - • CSDisseminate Collaborator
 - Volunteer with a grassroots initiative to promote open science in the field of communication sciences and disorders
- 2019, 2022 • ASHA Topic Committee Reviewer
 - Swallowing Disorders in Adults

Certification, Licensure & Memberships

- 2019 - • New York State Speech Pathology License
- 2017 - • Certificate of Clinical Competency, American Speech-Language-Hearing Association (ASHA)
- 2016 - • Member, Dysphagia Research Society
- 2014 - • Member, ASHA SIG 3: Swallowing and Swallowing Disorders