

Curriculum Vitae
AMANDA MAHONEY, MA-SLP
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EDUCATION

Undergraduate:

1995-1999	Hobart and William Smith Colleges Geneva, NY	B.A. (1999) Psychology
2012-2014	University of Pittsburgh Pittsburgh, PA	Post-Baccalaureate (2014) Communication Science and Disorders

Graduate:

2015-2017	University of Pittsburgh Pittsburgh, PA	M.A. (2017) Speech Language Pathology
2017- present	University of Pittsburgh Pittsburgh, PA	Ph.D. Communication Science and Disorders <i>Advisor: Dr. James Coyle</i>

RESEARCH WORK

Graduate Research Assistant (Jan 2018 – present)

University of Pittsburgh, Pittsburgh, PA

School of Health and Rehabilitation Sciences

Department of Communication Science and Disorders, Computational Deglutition Lab

Principal Investigators: Dr. Ervin Sejdic, PhD and Dr. James Coyle, PhD

- Work closely with a team of engineers to answer clinical questions using kinematic swallow analysis, microphone and accelerometry signals, and machine learning.
- Oversee a team of undergraduate and master's level research assistants who work in the lab.
- Recruit healthy participants for current study in which we simultaneously collect videofluoroscopic images, microphone, and vibratory swallowing signals.
- Consent participants and collect data during experiments.
- Code swallowing kinematic events and assign MBSImP ratings through videofluoroscopic x-ray analysis.
- Review engineer's dysphagia-related manuscripts for grammar and content.
- Prepare poster and manuscripts related to computational deglutition for publication.

Project Coordinator (Sep 2011 - Aug 2016)

University of Pittsburgh, Pittsburgh, PA

Department of Psychology, Pittsburgh Early Autism Study

Primary Investigator: Dr. Susan B. Campbell, PhD

- Recruited high and low risk participants (6-34 months) to participate in a study on the social development of infants and toddlers at genetic risk for an autism spectrum disorder.
- Ran participant visits (home and lab).
- Hired, organized, and managed teams of undergraduates for coding participant behavior.
- Coded parent, infant, and toddler language, and social and emotional behavior.
- Collected and analyzed statistical data.
- Created and presented research posters.
- Collaborate on manuscripts.

Research Assistant (Sep 2013 - April 2014)

University of Pittsburgh, Pittsburgh, PA

School of Health and Rehabilitation Sciences

Department of Communication Science and Disorders, Cochlear Implant Processing Lab

Primary Investigator: Dr. Chris Brown, PhD

- Recruited control participants.
- Conducted preliminary hearing screenings.
- Administered speech recognition tasks using speech samples filtered through a cochlear implant processor.

SCHOLARSHIP

PUBLICATIONS

Sejdic, E., Khalifa, Y., **Mahoney, A.S.**, Coyle, J.L. (2020). Artificial intelligence and dysphagia: New solutions to old problems (editorial). *Arquivos de Gastroenterologia*, 57(4), 343-346.

Sabry, A., **Mahoney, A. S.**, Mao, S., Khalifa, Y., Sejdic, E., Coyle, J. L. (2020). Automatic estimation of laryngeal vestibular closure duration using high-resolution cervical auscultation (HRCA) signals. *Perspectives of the ASHA Special Interest Groups*, 5(6), 1647-1656.

Balest, A.L., White, K.E., Shaffer, A.D., **Mahoney, A.S.**, Georg, M., Theiss, R., & Dohar, J. (2019). Consideration of cough reflex development when ordering Modified Barium Swallow Studies in infants. *Dysphagia*, 35(3), 533-541.

Zhang, Z., Perera, S., Donohue, C., Kurosu, A., **Mahoney, A.**, Coyle, J., Sejdic, E. (2020). The prediction of risk of penetration-aspiration via hyoid bone displacement features. *Dysphagia*, 35(1), 66-72.

He, Q., Perera, S., Khalifa, Y., Zhang, Z., **Mahoney, A.**, Sabry, A., Donohue, C., Coyle, J., & Sejdic, E. (2019). The association of high resolution cervical auscultation signal features with hyoid bone displacement during swallowing. *IEEE Transactions on Neural Systems & Rehabilitation Engineering*, 27(9), 1810-1816.

Campbell, S., **Mahoney, A.**, Brownell, C., Moore, E. & Tavares, A. (2018). Parents' use of internal state language with toddlers at high and low genetic risk for autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 49(4), 1366-1377.

Campbell, S., **Mahoney, A.**, Northrup, J, Moore, E., Leezenbaum, N., & Brownwell, C. (2018). Developmental changes in pretend play from 22- to 34- months in younger siblings of children with autism spectrum disorder. *Journal of Abnormal Psychology*, 46(3), 639-654.

Campbell, S., Leezenbaum, N., **Mahoney, A.**, Moore, E., & Brownell, C. (2016). Pretend play and social engagement in toddlers at high and low genetic risk for autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 46(7), 2305-2316.

Campbell, S., Leezenbaum, N., **Mahoney, A.**, Day, T., & Schmidt, E. (2015). Social engagement with parents in 11-month-old siblings at high and low genetic risk for autism spectrum disorder. *Autism*, 19, 915-924.

PROCEEDINGS

Caliskan, H., **Mahoney, A.**, Coyle, J., & Sejdic, E. Automated bolus detection in videofluoroscopic images of swallowing using Mask-Rcnn. 42nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) in conjunction with the 43rd Annual Conference of the Canadian Medical and Biological Engineering Society, July 2020, Montreal.

PROFESSIONAL PRESENTATIONS

ORAL PRESENTATIONS

Mahoney, A., Donohue, C., Lucatorto, E., Khalifa, Y., Sejdic, E. & Coyle, J. Massive Open Online Courses (MOOCs): Applications for educators, researchers, and clinicians in CSD. Oral presentation at: American Speech-Language-Hearing Association Convention; 2020; San Diego, CA. (Conference canceled).

Mahoney, A. The C3 & C4 vertebral units: Visual approximations of hyoid displacement during videofluoroscopy. Oral presentation at: American Speech-Language-Hearing Association Convention; 2019 November 20-23; Orlando, FL.

Mahoney, A., Donohue, C., & Coyle, J. Novel technologies in dysphagia assessment and treatment. Oral presentation at: American Speech-Language-Hearing Association Convention; 2019 November 20-23; Orlando, FL.

POSTER PRESENTATIONS

Donohue, C., **Mahoney, A.**, Sejdic, E., & Coyle, J. How important is randomization of swallows during kinematic analysis of swallow function? Poster at: Annual Rehabilitation Institute Research Day; 2020, October 7; Pittsburgh, PA (Virtual).

Mahoney, A., Lundblom, E. A Systematic and comprehensive teaching approach to strengthen clinical writing skills in undergraduate students. Poster presentation at: American Speech-Language-Hearing Association Convention; 2020; San Diego, CA. (Conference canceled).

Mahoney, A., Turner, R., O'Donnell, M., Coyle, J., & Skoretz, S. A bibliometric review of infant feeding and swallowing interventions. Poster presentation at: American Speech-Language-Hearing Association Convention; 2020; San Diego, CA. (Conference canceled).

Donohue, C., **Mahoney, A.,** Khalifa, Y., Mao, S., Sejdic, E., Coyle, J. Can HRCA characterize kinematic events of swallow function in healthy adults across the lifespan? Poster presentation at: American Speech-Language-Hearing Association Convention; 2020; San Diego, CA. (Conference canceled).

Mahoney, A., Donohue, C., Coyle, J., Sejdic, E. MOOC: A creative and effective way to disseminate knowledge across disciplines. Poster at: 2020 Pennsylvania Speech-Language-Hearing Association Convention: 2020 April 1-4; Pittsburgh, PA. (Conference canceled).

Mahoney, A., Donohue, C., Perera, S., Sejdic, E., & Coyle, L. Can HRCA signal features of UES diameter and duration of UES opening predict MBSImP residue ratings? Poster at: Dysphagia Research Society Annual Meeting; 2020, March 17-20; San Juan, PR. (Conference canceled).

Donohue, C., **Mahoney, A.,** Sejdic, E., & Coyle, J. How important is randomization of swallows during kinematic analysis of swallow function? Poster at: Dysphagia Research Society Annual Meeting; 2020, March 17-20; San Juan, PR. (Conference canceled).

Sabry, A., Mao, S., **Mahoney, A.,** Khalifa, Y., Sejdic, E., & Coyle, J. Estimation of laryngeal vestibular closure duration using High Resolution Cervical Auscultation (HRCA) signals. Poster presented at: American Speech-Language-Hearing Association Convention; 2019 November 20-23; Orlando, FL.

Mahoney, A., Donohue, C., Coyle, J., Sejdic, E. MOOC: A creative and effective way to disseminate knowledge across disciplines. Poster presented at: MedEd Day: 2019 September, 20; Pittsburgh, PA.

Mahoney, A., Coyle, J., Khalifa, Y., Sabry, A., Sejdic, E. The C3 & C4 vertebral units: Visual approximations of hyoid displacement during VFSS. Poster presented at: Rehabilitation Institute Research Day: 2019 May, 22; Pittsburgh, PA.

Mahoney, A., Coyle, J., Khalifa, Y., Sabry, A., Sejdic, E. The C3 unit: A visual approximation of hyoid displacement during VFSS. Poster presented at: Dysphagia Research Society Annual Meeting: 2019 March 7-9; San Diego, CA.

Sabry, A., **Mahoney, A.,** Perera, S., Sejdic, E., Coyle, J. Are HRCA signal features associated with clinician ratings of pharyngeal residue using the MBSImp? Poster presented at: Dysphagia Research Society Annual Meeting: 2019 March 7-9; San Diego, CA.

Mahoney, A., Balest, A., White, K., Shaffer, A., Georg, M., Theiss, R., & Dohar, J. Consideration of Cough Reflex Development in Infants Referred for Modified Barium Swallow Studies. Poster presented at: American Speech-Language-Hearing Association Convention; 2018 November 15-18; Boston, MA.

Donohue, C., **Mahoney, A.**, Zhang, Z., Kurosu, Z., Sejdic, E., & Coyle, J. Do Machine Ratings of Hyoid Bone Displacement During Videofluoroscopy Match Clinician Ratings Using the MBSImP? Poster presented at: American Speech-Language-Hearing Association Convention; 2018 November 15-18; Boston, MA.

Donohue, C., Zhang, Z., **Mahoney, A.**, Perera, S., Sejdic, E., & Coyle, J. Can Machine Ratings of Hyoid Bone Displacement During Swallowing Predict Penetration & Aspiration? Poster presented at: American Speech-Language-Hearing Association Convention; 2018 November 15-18; Boston, MA.

Donohue, C., Zhang, Z., **Mahoney, A.**, Perera, S., Sejdic, E., & Coyle, J. Can Machine Ratings of Hyoid Bone Displacement During Swallowing Predict Penetration & Aspiration? Poster presented at: Carnegie Mellon University's Forum on Biomedical Engineering; 2018 September 21; Pittsburgh, PA.

Mahoney, A., Lockyer, P., Brownell, C. & Campbell, S. Development of elicited pretend play in toddlers at high genetic risk for autism spectrum disorders. Poster presented at: Society for Research in Child Development Biennial Meeting; 2015 March 19-21; Philadelphia, PA.

Leezenbaum, N., **Mahoney, A.**, Lockyer, P. & Campbell, S. Symbolic play in toddlers at high and low genetic risk for autism spectrum disorders. Poster presented at: Society for Research in Child Development Biennial Meeting; 2015 March 19-21; Philadelphia, PA.

Mahoney, A., Leezenbaum, N., Brownell, C., & Campbell, S. The use of inner state language by parents of toddlers at high and low genetic risk for autism. Poster presented at: Society for Research in Child Development Biennial Meeting; 2013 April 18-20; Seattle, WA.

Leezenbaum, N., **Mahoney, A.**, Schmidt, E. & Campbell, S. Parental behavior during play predicts imitation differently in toddlers at high and low genetic risk for autism. Poster presented at: Society for Research in Child Development Biennial Meeting; 2013 April 18-20; Seattle, WA.

TEACHING AND MENTORING EXPERIENCE

COURSES TAUGHT

The University of Pittsburgh

CSD 1234: Writing Practicum for Evaluation and Treatment 1 credit UG (FA 17,18, SP 20 21)

Invited Guest Lectures

The University of Pittsburgh

CSD 2081: Research Strategies and Tactics "Article Appraisal" GRAD (Sept 20)

CSD 1230: Introduction to SLP "Pediatric Dysphagia" UG (April 20, 21)

The University of South Alabama

SLP 510/AUD 616: Research Design "Article Appraisal" GRAD (October 18,19, 20)

PROFESSIONAL SERVICE

JOURNAL REFEREEING

2021 – present	Editorial Board Member, <i>Perspectives of the ASHA Special Interest Groups</i> , Swallowing and Swallowing Disorders
2019 – present	Dysphagia
2018 – present	American Journal of Speech-Language Pathology

COMMITTEES

2020 – present	Student Advisory Board Committee Member (Dysphagia Research Society)
2020 – present	Convention Planning Committee Member (PSHA 2021)

PROFESSIONAL ASSOCIATIONS

2017 – present	Dysphagia Research Society
2015 – present	American Speech-Language Hearing Association (ASHA) <ul style="list-style-type: none">• Special Interest Group (SIG) #13 Swallowing and Swallowing Disorder• Special Interest Group (SIG) #10 Higher Education
2012 – present	National Student Speech-Language Hearing Association (NSSLHA)
2017 – present	Pennsylvania Speech-Language-Hearing Association (PSHA)
2017 – present	Southwestern Pennsylvania Speech-Language-Hearing Association (SPSHA)

LICENCES AND CERTIFICATIONS

2019	Achievement in Pedagogy Badge
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AWARDS

Fall 2020	ASHA Meritorious Poster Award across categories: “Professional Education” and “Research”
Spring 2020	Pennsylvania Speech-Language Hearing Association Meritorious Poster Award
Fall 2019	ASHA’s <i>Perspectives of Special Interest Group 13</i> Golden Ticket Poster Award
Fall 2019	Graduate and Professional Student Government Travel Grant
Fall 2019	School of Health and Rehabilitation Sciences Research Development Fund
Fall 2019	School of Health and Rehabilitation Sciences Travel Grant
Spring 2019	Semantic Compaction Systems Education Travel Award
Spring 2019	School of Health and Rehabilitation Sciences Travel Grant
Fall 2017	Semantic Compaction Systems Education Travel Award

MEETINGS AND COURSES ATTENDED

2019	ASHA Convention (Orlando, FL)
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2019	Med Ed Day (Pittsburgh, PA)
2019	Rehabilitation Institute Research Day (Pittsburgh, PA)
2019	Dysphagia Research Society Conference (San Diego, CA)
2018	ASHA Convention (Boston, MA)
2018	Feeding and Swallowing Conference (Children's Hospital of Pittsburgh, Pittsburgh PA)
2018	Dysphagia Research Society Conference (Baltimore, MD)
2017	ASHA Convention (Los Angeles, CA)
2017	Feeding and Swallowing Conference (Children's Hospital of Pittsburgh, Pittsburgh PA)
2017	Pediatric Feeding Conference: Feeding and Swallowing Across the Lifespan (Nationwide Children's Hospital, Columbus, OH)
2016	ASHA Convention (Philadelphia, PA)
2015	Society of Research in Child Development (Philadelphia, PA)
2013	Society of Research in Child Development (Seattle, WA)

CLINICAL WORK

Children's Hospital of Pittsburgh Main, Pittsburgh, PA

Speech-Language Pathology Clinical Fellow (Oct. 2019 – February 2020)

- Provided speech and language treatment for individuals with speech and language disorders.
- Screen and assess children for speech and language disorders.
- Provide education to parents/caregivers regarding assessment results, treatment goals, carry-over home activities.

UPMC Passavant Hospital, Pittsburgh, PA

Speech-Language Pathology Clinical Fellow (Sept. 2019 – February 2020)

- Perform bedside evaluations for patients suspected of dysphagia and/or communication disorders in an acute care setting.
- Treat patients with dysphagia by teaching compensatory strategies and muscle strengthening exercises.
- Assess and treat patients with cognitive and memory impairments in rehab setting.
- Complete Modified Barium Swallow Studies for patients suspected of having dysphagia.
- Provide education regarding swallow safety and diet considerations to patients and caregivers.

UPMC ALS Clinic, Pittsburgh, PA

Speech-Language Pathology Clinical Fellow (Sept. 2019 – February 2020)

- Screen patients with ALS for dysphagia.
- Educate patients and family members about swallow and diet considerations with disease progression.
- Train appropriate patients in use of Expiratory Muscle Strength Trainer device.

GRADUATE STUDENT CLINICAL WORK

Children's Hospital of Pittsburgh South, Bridgeville, PA

Graduate Student Clinician (Sep. - Dec. 2015)

- Administered, scored and interpreted a variety of standardized tests to evaluate communication disorders.
- Completed babbling analyses, MLU/Brown's Stages analyses, and narrative analyses.
- Composed and charted a summary of speech, language, fluency and voice in accordance with site requirements.
- Analyzed patients' deficits and developed appropriate treatment recommendations.

Pittsburgh Area Preschools/Daycares, Pittsburgh, PA

Graduate Student Clinician; Audiological Assessments (Jan - April 2016)

- Audiological assessments for children 3-5 years old in preschools and daycares.
- Screened for hearing using a portable audiometer.
- Screened for middle ear abnormalities using tympanometry.
- Screened for function of the cochlea using a portable Otoacoustic Emissions Hearing Test device.

UPMC Eye and Ear Institute, Pittsburgh, PA

Graduate Student Clinician (Jan.-April 2016)

- Evaluated patients for dysphagia and communication disorders in acute care setting.
- Reviewed medical charts and triaged patients to coordinate care with other services.
- Conducted oral/facial sensorimotor examinations, clinical swallowing trials and cognitive screenings. Tools used include: *Mini Mental State Examination* and *NIH Stroke Scale*.
- Treated patients with dysphagia by teaching compensatory strategies, muscle strengthening exercises, and using biofeedback technology.
- Assisted in Modified Barium Swallow Studies for patients with dysphagia secondary to radiation treatment, stroke, lung transplantation, and tracheostomy dysfunction.
- Charted patient assessment and progress in UPMC online documentation database.

Crossroads Speech and Hearing, Inc., Pittsburgh, PA

Graduate Student Clinician (May-Aug. 2016)

- Provided speech and language treatment for pediatric patients with articulation and phonological disorders, expressive and receptive language disorders, fluency disorders, apraxia of speech, autism, and submucous cleft palate.
- Developed and modified treatment goals based on the individual needs of the child.
- Created motivating treatment activities for children with a variety of goals.
- Utilized scaffolding, prompts and cues while encouraging independence.
- Collected data during sessions to document progress.
- Communicated with families regarding treatment progress.

Children's Home of Pittsburgh, Pittsburgh, PA

Graduate Student Clinician (Aug-Dec. 2016)

- Participated in evaluation of infants with or at high risk for swallowing disorders regarding such issues as nipple choice, feeding positions, and other feeding strategies.
- Treated infants with feeding problems stemming from: cardiac anomalies, Neonatal Abstinence Syndrome, TBI, laryngeal clefts, laryngomalacia, Down Syndrome, and preterm birth.
- Communicated with staff on four units regarding infant feeding schedules, changes, and updates.
- Interacted with parents and offered support and strategies for infant feeding.

Pittsburgh Public Schools (Langley K-8), Pittsburgh, PA

Graduate Student Clinician (Jan 2017-April 2017)

- Screened and assessed children for speech and language disorders to take on caseload.
- Wrote lesson plans and created activities to address speech and language goals.
- Provided speech and language treatment for individuals and groups with speech and language disorders.
- Wrote Individual Education Plans (IEPs).

UPMC Eye and Ear Institute, Pittsburgh, PA

Graduate Student Clinician (May-July 2017)

- Evaluated patients for dysphagia and communication disorders in acute care setting.
- Treated patients with dysphagia by teaching compensatory strategies and muscle strengthening exercises.
- Treated patients with cognitive and memory impairments in rehab setting.
- Assisted in care and changing of Tracheoesophageal Voice Prostheses in patients with total laryngectomies.
- Assisted in Modified Barium Swallow Studies.