

**2021**  
**Academy of Rehabilitative Audiology**  
**Institute**



**“Triangulating Inter-Professional Approaches to  
Hearing Rehabilitation”**

**October 17-19, 2021**  
**Durham Convention Center**  
**Durham, North Carolina**

**Hybrid Synchronous Meeting**  
**In-person & Live online**



Welcome ARA Members and Guests!

On behalf of the program committee, welcome to the 2021 ARA Institute in Durham, North Carolina. We are thrilled to be able to see many of you face-to-face this year, but we also understand that some people are unable to travel and we look forward to seeing you live online.

Hearing healthcare has observed several changes over the last few years, with increases in use of telehealth and changes in distribution models. More and more evidence of the impact of hearing on health and cognition have created an expanded demand for AR services and collaboration with professionals from other disciplines.

Please find enclosed a full program for the Institute events, including our keynote speaker who will be presenting the *Pat Kricos Lecture*, presentations, Honors of the Association and more. The ARA Institute offers an environment rich with education, discussion and debate all centered on the provision of the highest quality services for persons with hearing loss and their families.

A special **welcome to students!** Whether you are studying to specialize in Speech and Language, Audiology or ENT, we are glad you are here and want your continued involvement in ARA!

**A VERY special thanks to Syracuse University** for all of their support in obtaining CEUs for this conference.

We also would like to thank our program committee for their efforts in planning this exciting program.

Sherri Smith (Program Planning Chair)  
Karen Doherty  
Kristin Dilaj  
Anne Olson  
Abigail Prawitz  
Brittney Carlson  
Peg Palmiere

# Continuing Education Units

Although sessions will be recorded, ASHA CEUs will **ONLY** be provided for the *synchronous* portion of the meeting, in-person or online. Recorded sessions will be available after the meeting, but **NOT** for ASHA CEUs.



**ASHA CE**  
**APPROVED PROVIDER**

Syracuse University, Department of  
Communication Sciences and Disorders

Intermediate Level

1.00 ASHA CEUs

## *CEU Submission and Certificate of Attendance*

Please complete the evaluation forms: Conference Evaluation and CE participation. A link to the forms will be emailed to you. These forms must be submitted to Abigail Prawitz [aeprawit@syr.edu](mailto:aeprawit@syr.edu) by October 29, 2021. A Certificate of Attendance will be e-mailed to all participants.

# 2021 ARA Institute Sponsors

Partial funding to support the ARA 2021 Institute is generously provided by:

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# 2021 ARA Student Contest

This summer, students across the country were invited to create a visual presentation for patients or professionals to demonstrate or address a current topic in aural rehabilitation.

The first round was judged by a panel of ARA experts on

- Creativity (25 points)
- Visual appeal (25 points)
- Content accuracy (25 points)
- Clinical relevance (25 points)

Seven submissions were chosen, and the winners were selected through voting by peers and ARA members via social media.

ARA would like to extend a warm congratulations to the winners, below:

**First Place:** Free Auditory Training Apps for Children with Hearing Loss  
Samantha Schneider, Rush University

**Second Place:** 5 Tips to Improve Communicating with a Mask  
Melina Mashayekhi, University of Connecticut

**Third Place:** Mask Project  
Jenna Duerr, University of North Carolina - Chapel Hill

**Visit the ARA website [audrehab.org](http://audrehab.org) to see the students' work!**

# 2021 Honors of the Association

## Dr. Joseph J. Montano

### Chief of Audiology and Speech Language Pathology at New York Presbyterian Hospital-Weill Cornell Medical Center



The Award of Honor, the highest award given by the Academy of Rehabilitative Audiology, is presented in recognition of sustained and dedicated service and meritorious contributions to the Academy and to rehabilitation of individuals who are deaf and hard-of-hearing.

Dr. Joseph Montano is Professor of Audiology and Director of Hearing and Speech at Weill Cornell Medicine. He received his MA degree from New York University and his Ed.D. in Audiology from Teacher's College Columbia University. Prior to working at Weill Cornell, Dr. Montano was an Associate Professor at Long Island University/C.W. Post, and for 17 years was Director of the Department of Communication Disorders at Manhattan Eye, Ear, and Throat Hospital. He has been a highly active collaborator with the Ida Institute and serves on the board of the Hearing Rehabilitation Foundation. Dr. Montano's clinical expertise is audiologic rehabilitation with particular interest in adjustment to adult onset hearing loss, hearing assistive technology systems and hearing aids.

Dr. Montano served as ASHA Vice President for Standards/Ethics in Audiology, Past President of the Academy of Rehabilitative Audiology and twice Coordinator of ASHA Sig 7 Aural Rehabilitation and Its Instrumentation. Dr. Montano serves in an advisory capacity on the Boards for the Hearing Rehabilitation Foundation (HRF), Hearing Education and Awareness for Rockers (HEAR), Children's Hearing Institute (CHI), the Acoustic Neuroma Association (ANA) and the NYS Hearing Loss Association of America (HLAA). In addition to numerous presentations and publications, he is the co-editor of the book *Adult Audiologic Rehabilitation* now in its 3<sup>rd</sup> Edition.

Dr. Montano has been named Fellow of the American Speech Language Hearing Association and holds Honors of the New York State Speech Language Hearing Association (NYSSLHA). He is the recipient of the ASHA New York State Clinical Achievement Award, the NYSSLHA Distinguished Service Award, and the Nitchie Award for Adult Aural Rehabilitation from the League for the Hard of Hearing.

Dr. Montano's service to the ARA community has been outstanding. He has served as a Past President of the Academy of Rehabilitative Audiology and has chaired or co-chaired the planning committee for past ARA Institutes. His dedication to promoting research, his camaraderie in our community along with his enthusiasm in the practice of aural (re)habilitation is immediately evident at any of the Institutes and his dedication to the field is inspiring and has strengthened the academy.

We are excited to pay tribute to Dr. Montano's work in the field and to our ARA community with the highest honor of our Academy.

**Sunday October 17, 2021**

**Opening Reception from 6-7:30 PM  
is CANCELLED**

**MONDAY October 18, 2021 (Hybrid)**  
**8:00 AM to 5:15 PM**

8:00 AM to 5:00 PM	Registration	
8:00 – 8:15 AM (In Person)	Welcoming Remarks	Sherri Smith, ARA Past President and Institute Planning Chair, Duke University
8:15 – 9:15 AM (Remote)	Pat Kricos Lecture Integrated people-centered ear and hearing care for older adults: Imperatives and opportunities for inter-professional practice and inter-disciplinary research	Kathy Pichora-Fuller, Professor Emeritus, University of Toronto at Mississauga
9:15 – 9:45 AM (In Person)	<b>Oyer Student Research Award Winner</b> Social cognitive abilities in adults with and without hearing loss	Karah Gottschalk, Nova Southeast
Poster Recording #1 (9:45-9:50 AM)	Non-verbal communication considerations in hearing aid fittings	Torri Ann Woodruff, University of Connecticut
Poster Recording #2 (9:50-9:55 AM)	Nonverbal communication in hearing aid fittings: Eye contact	Jamie Roy, University of Connecticut
Poster Recording #3 (9:55-10:00 AM)	Affirmative nonverbal cues in hearing aid appointments.	Samantha Dart, University of Connecticut
Q&A for Posters 1-3 (10:00-10:15 AM)	Panel Discussion Q&A	Roy (R), Woodruff (R), Dart (R)
<b>10:15 – 10:40 AM</b>	<b>Morning Break and Exhibits</b>	
10:40 – 11:00 AM (In Person)	Learning together: Interprofessional collaborative practice in adult cochlear implant aural rehabilitation	Denise Tucker, University of North Carolina at Greensboro
11:00 – 11:20 AM (Remote)	An inter-disciplinary approach to development of a pediatric vestibular program	Hannah Heet, Duke University
11:20 – 11:40 AM (Remote)	Interprofessional alliances: Supporting educators in providing accommodations to students with hearing loss	Jessica Huddleston, OUHSC
11:40 – 12:00 PM (Remote)	Person-centered care from the patient's perspective	Shari Eberts, Living with Hearing Loss
<b>12:00 – 1:00 PM</b>	<b>LUNCH</b>	
1:00 -1:10 PM	Presentation of Honors of the Association	Sherri Smith, Duke University
1:10 – 1:30 PM (Remote)	Increasing sensitivity to members of the LGBTQ community seeking audiologic care	Emilie K. Clark, Children's Aid
1:30 – 1:50 PM (Remote)	Self-reported reasons for the non-use of hearing aids among Hispanic adults with hearing loss	Jamie Desjardins, Syracuse University

1:50 – 2:10 PM (Remote)	Aural rehabilitation for low income adults	Carole Johnson, University of Oklahoma Health Sciences Center
2:10 – 2:30 PM (In Person)	Timing of referrals and recipient follow-up patterns of cochlear implant candidates as a function of geographic region and socioeconomic status	Amanda Davis, University of North Carolina Chapel Hill
Poster Recording #4 (2:30 - 2:35 PM)	Preparing hearing help-seekers for telehealth follow-up appointments: A new area of aural rehabilitation	Bailey Simon, University of Oklahoma Health Sciences Center
Poster Recording #5 (2:35 - 2:40 PM)	Teleaudiology: A solution in search of a problem?	Harvey Abrams, Lively Hearing Corporation
Poster Recording #6 (2:40 - 2:45 PM)	Clinician-directed TeleAR training outcomes with adult cochlear implant users	Claire Bernstein, Gallaudet University
Q&A for Posters 4-6 (2:45 – 3:00 PM)	Panel Discussion Q&A	Simon (R), Abrams (R), Bernstein (R)
<b>3:00 – 3:30 PM</b>	<b>Afternoon Break and Exhibits</b>	
3:30 – 3:50 PM (Remote)	Factors related to self-identification of candidacy, device selection, and self-fitting of over-the-counter hearing aids	Jasleen Singh, Northwestern University
3:50 – 4:10 PM (In Person)	Hearing aid recommendations for older adults by audiologists and otolaryngologists	Elish Mahajan, Duke University
4:10 – 4:30 PM (In Person)	Hearing aid fitting considerations for patients with PTSD	Marc Fagelson, East Tennessee State University
4:30 – 4:50 PM (In Person)	Shared experiences among successful hearing aid users with high hearing aid self-efficacy	Lipika Sarangi, University of Memphis
4:50 – 5:10 PM (In Person)	The role of value in contemporary hearing care	Howard Francis, Duke University
5:10 – 5:15 PM (In Person)	Closing Remarks	Sherri Smith, Duke University

**TUESDAY October 19, 2021 (Hybrid)**  
**8:00 AM to 12:00 PM**

8:00 AM to 12:00 PM	Registration	
8:00 – 8:30 AM (Hybrid)	Business Meeting ( <i>ARA Members Only</i> )	<i>ARA Members Only</i>
8:30 – 8:50 AM (Remote)	Communication in times of a pandemic: the hearing impaired perspective	Mathieu Hotton, Laval University, Quebec City, Canada
8:50 – 9:10 AM (In Person)	Pandemic related communication experiences and communication strategies	Silvana Tellerico, University of Massachusetts Amherst
9:10 – 9:40 AM (In Person)	<b><i>Oyer Student Research Award Winner</i></b> What makes clear speech angry?	Madison Wageck, University of Utah
Poster Recording #7 (9:40-9:45 AM)	Impact of self-reported polysensory loss on poor cognitive performance	Elish Mahajan, Duke University
Poster Recording #8 (9:45-9:50 AM)	Educational seminar for lifelong learners with hearing loss: A university and private practice collaboration	Laura Gaeta, California State University
Q&A for Posters 7&8 (9:50 – 10:00 AM)	Panel Discussion Q&A	Mahajan (In Person), Gaeta (Remote)
<b>10:00 – 10:25 AM</b>	<b>Morning Break and Exhibits</b>	
10:25 – 10:45 AM (In Person)	Group AR in 2021: Taking the rehab to the patient	Caitlyn Whitson, University of North Carolina Chapel Hill
10:45 – 11:05 AM (In Person)	Audiologists' perspectives on using low-gain hearing aids for bothersome tinnitus	Candice Quinn, Durham VA Health Care System
11:05 – 11:25 AM (Remote)	FM/DM use for children in the mainstream: always the best recommendation?	Kristin Dilaj, New England Center for Hearing Rehabilitation, LLC
11:25 – 11:45 AM (Remote)	Clinical trial of a new protocol and clinical tool designed to assess the audiological needs of individuals with hearing loss	Mathieu Hotton, Laval University, Quebec City, Canada
11:45 – 12:05 PM (In Person)	Beyond the free demo: Establishing value and quality through a comprehensive hearing aid selection process	Stephanie Sjoblad, University of North Carolina Chapel Hill
12:05 – 12:10 PM (In Person)	Closing Remarks	Sherri Smith, ARA Past President and Institute Planning Chair, Duke University
<b>12:10 PM</b>	<b>Adjourn</b>	

8:15 – 9:15 AM

Monday, October 18, 2021

## KEYNOTE ADDRESS: PAT KRICOS LECTURE

**Title** **Integrated people-centered ear and hearing care for older adults: Imperatives and opportunities for inter-professional practice and inter-disciplinary research**

**Presenter** M. Kathleen Pichora (presenting author)

Professor, Emerita, University of Toronto  
Adjunct Professor, Simon Fraser University

**Abstract** The global public health agenda for the ageing population creates imperatives and opportunities for rehabilitative audiologists to adopt more inter-professional approaches to practice and more inter-disciplinary approaches to research. In 2021, the UN Decade of Healthy Aging began and the World Health Organization (WHO) released the first ever World Report on Hearing. These 2021 landmarks build on the 2019 WHO Integrated Care for Older People (ICOPE) Guidelines on Community-Level Interventions to Manage Declines in Intrinsic Capacity and the 2015 WHO World Report on Ageing and Health. ICOPE focuses on evidence-based recommendations for health care professionals to prevent, slow or reverse declines in hearing, along with five other intrinsic physical and mental capacities of older adults, namely mobility loss, malnutrition, visual impairment, cognitive impairment, and depressive symptoms. The goal of healthy ageing was defined as helping people in “developing and maintaining the functional ability that enables well-being, where functional ability is defined as the “health-related attributes that enable people to be and to do what they have reason to value”. The WHO public health framework for healthy ageing focuses on the goal of maintaining intrinsic capacity and functional ability across the life course. Consistent with this framework, the World Report on Hearing emphasizes the need for integrated people-centered ear and hearing care with a life-course perspective. This lecture will explore how audiologic rehabilitation could evolve to fulfil this vision for hearing as a core part of integrated people-centered ear and hearing care for older adults.

**Learner** Upon completion, participants will be able to:

**Outcomes**

1. describe the associations between hearing loss and other age-related declines in intrinsic capacities.
2. explain how AR could support functioning across the life course as intrinsic hearing capacity declines with age.
3. adapt research to advance inter-professional practice to promote healthy ageing.

**Speaker Bio** Kathy Pichora-Fuller is Professor Emerita (University of Toronto). She translates her experimental research on auditory and cognitive aging to rehabilitation. She received the AAA International Research Award and Eve Kassirer Lifetime Achievement Award from Speech-Language and Audiology Canada. She is President of the International Collegium of Rehabilitative Audiology, the audiology expert for the Canadian Longitudinal Study of Aging and Canadian Consortium on Neurodegeneration in Aging, and works with the WHO and International Federation on Ageing.

**Disclosures** Dr. Pichora receives grant funding from the Canadian Institutes of Health Research and from Sonova. She has no relevant non-financial relationships to disclose.

9:15 – 9:45 AM

Monday, October 18, 2021

**Title** *Oyer Student Research Award Winner: Social cognitive abilities in adults with and without hearing loss*

**Presenter**



Karah Gottschalk, AuD, PhD

Nova Southeastern University

**Abstract**

Hearing loss is the most common sensory deficit noted in aging adults, and commonly known to negatively impact communication. However, literature also suggests a correlation between hearing loss and cognition in aging adults. Research on this topic is often centered around the cognitive domains of attention and memory but neglects another important domain: social cognition. Research suggests that those with hearing loss often experience social isolation and depression, but do those with hearing loss experience measurable changes in their social cognitive abilities?

The purpose of this quantitative study was to determine if group differences were present on the social cognitive assessment known as Advanced Clinical Solutions (ACS), in adults with and without hearing loss.

**Learner Outcomes**

Upon completion, participants will be able to:

1. define social cognition.
2. describe the domains of social cognitive abilities.
3. describe social cognitive abilities differences that were found between adults with and without hearing loss.

**Speaker Bio**

Karah Gottschalk, AuD, PhD obtained her bachelor's from the University of Florida and her AuD from the University of Louisville. After completing her AuD studies while working in a hospital in upstate New York, she pursued a PhD in Gerontology at the University of Kentucky. She graduated in 2021, with her dissertation work centered around cognitive abilities in adults with and without hearing loss. She is currently an Assistant Professor at Nova Southeastern University.

**Disclosures**

Karah Gottschalk is currently employed by Nova Southeastern University. She has no relevant non-financial relationships to disclose.

**10:40-11:00 AM**

Monday, October 18, 2021

**Title** **Learning together: Interprofessional collaborative practice in adult cochlear implant aural rehabilitation**

**Presenter** Denise Tucker, AuD (presenting author), Christopher Atkins, PhD, CCC/SLP, Amy Myers, AuD, CCC/A, Mary V. Compton, EdD, CCC/SLP, Sarah J. Allen, PhD, AuD, CCC/A, & Onyinyechi Ukaegbe, MD

University of North Carolina at Greensboro

**Abstract** Late deafened adults (LDAs) who receive cochlear implants (CIs) constitute a growing population of individuals who can benefit from aural rehabilitation (AR) therapy. Although CI manufacturer-developed and fee-based online auditory training materials offer self-driven individual models of AR, biopsychosocial models of AR incorporate principles of social interaction, self-advocacy, psychosocial functioning and social support in conjunction with analytic and synthetic listening auditory training (Erdman, 2014; Hickson, 2012; Boothroyd, 2010).

Cochlear Implant Connections (CIC), a ten week-research-focused program of group AR for LDAs with CIs offered by the Department of Communication Sciences and Disorders at the University of North Carolina Greensboro incorporates communication and listening strategies training within the framework of the Dennison (2008) and Yalom (1995) models of social cognitive intervention therapy from the disciplines of psychology and social work in conjunction with components of AR from the disciplines of audiology, speech pathology and auditory-verbal practices. The CIC model of adult AR emphasizes the central role of interpersonal learning and socialization as individuals adjust to the psychosocial effects of hearing loss as they acquire knowledge and strategies to optimize their listening and communication with their implants (Tucker, et al 2011). Thus, the holistic nature of learning to listen with a CI in a group setting becomes the means for implementing interprofessional practice in AR.

In this presentation, we will describe how CIC provides a context for audiologists, speech-language pathologists and a teacher of students who are DHH to engage in interprofessional collaborative practice within the framework of the 2016 Interprofessional Education Collaborative (IPEC) Core Competencies for Interprofessional Collaborative Practice.

**Learner Outcomes** Upon completion, participants will be able to:

1. summarize ASHA's key elements of the Special Areas of Knowledge and Skills of audiologists and speech-language pathologists who provide AR.
2. summarize the AG Bell Academy for Listening and Spoken Language spoken language and listening domains of teachers of students who are deaf or hard of hearing who provide spoken language and listening instruction.
3. summarize ASHA's components of successful interprofessional practice (IPP) teams.
4. describe the relationships between the roles of an audiologist, speech language pathologist and teacher of students who are deaf or hard of hearing in delivering group AR for late deafened adults with cochlear implants in a university-based clinic program.

**Speaker Bio** Denise Tucker is a Full Professor in Audiology in the Department of Communication Sciences and Disorders at the University of North Carolina Greensboro. Her research interests focus on aural rehabilitation, doctoral education, tinnitus, and auditory evoked potentials. She is a founder of Cochlear Implant Connections, a group aural rehabilitation program for late deafened adults who use cochlear implants.

**Disclosures** Dr. Tucker has no relevant financial or nonfinancial relationships to disclose.

**11:00-11:20 AM** Monday, October 18, 2021

**Title** **An inter-disciplinary approach to development of a pediatric vestibular program**

**Presenter** Hannah Heet, (presenting author), Doug Garrison, AuD, CCC/A  
Duke Health

**Abstract** Vestibular dysfunction in pediatrics has up until recently been largely misdiagnosed, or even unrecognized. The need for pediatric vestibular assessment and treatment has gained momentum over the last several decades, with a large amount of research becoming available in support of this, especially in the pediatric hearing loss population. While these services are readily available for the adult population, few facilities offer assessment and treatment for the pediatric population. As such, development of a successful pediatric vestibular program depends on an inter-disciplinary approach to assessment and treatment to increase patient quality of life and better long- term outcomes.

**Learner Outcomes** Upon completion, participants will be able to:

1. identify the need for pediatric vestibular assessment and treatment based on risk factors.
2. define the role of individual specialties in a multi-disciplinary clinic.
3. explain the desired outcomes of a pediatric vestibular program.

**Speaker Bio** Dr. Hannah Heet is currently a clinical audiologist at Duke Health. Dr. Heet's interests include vestibular evaluation and management across the lifespan as well as tinnitus assessment and management. Dr. Heet is currently a member of the American Academy of Audiology, ASHA, American Tinnitus Association, and North Carolina Audiology Association. When not doing audiology, Dr. Heet enjoys reading, cooking, spending time with her husband, and dreaming of her next Disney vacation.

**Disclosures** Dr. Heet has no relevant financial relationships to disclose. She is transitioning into role of treasurer for the NCAA.

**11:20-11:40 AM**

Monday, October 18, 2021

**Title** **Interprofessional alliances for preparing educators in providing accommodations to students with hearing loss**

**Presenter** Jessica J. Huddleston, (presenting author) and Carole E. Johnson, PhD, AuD  
University of Oklahoma

**Abstract** Educators' preparedness to provide accommodations is essential to the academic success of students with hearing loss.

The purpose of this study was to survey public school teachers' and university instructors' knowledge of, experiences with, and attitudes toward providing accommodations to students with hearing loss and to develop interprofessional programs on the topic resulting from interprofessional alliances with public school and university administrators.

**Learner Outcomes** Upon completion, participants will be able to:  
1. describe educators' readiness to provide accommodations to students with hearing loss.  
2. discuss the importance of interprofessional alliances to ensure appropriate accommodations to students with hearing loss in the classroom.  
3. design meaningful in-service opportunities to instructors of students with hearing loss.

**Speaker Bio** Jessica J. Huddleston, BS, is a 4th-year AuD student at the University of Oklahoma Health Sciences Center. She is completing her 4th year externship at the Oklahoma State Department of Health. She is interested in educational audiology and hearing conservation. Several of her professional mentors have invested in developing her love for service, interprofessionalism, and research. She is a member of the Student Academy of Audiology and serves on the Students with Hearing Loss Subcommittee.

**Disclosures** Dr. Tucker has no relevant financial or non-financial relationships to disclose.

**11:40 – 12:00 PM** Monday, October 18, 2021

**Title** **Person-centered care from the patient's perspective**

**Presenter** Shari Eberts (presenting author)

Living With Hearing Loss

**Abstract** People with hearing loss approach each audiologist appointment with both trepidation and high hopes. We wonder: Will the audiologist take the time to focus on the communication challenges most important to me? Will I walk out with tools and skills that enhance my ability to live my life fully? Will I find a partner in my hearing care? After this session, your patients will be answering yes to each of these questions.

**Learner Outcomes** Upon completion, participants will be able to:

1. apply person-centered care to enhance the patient's desire and ability to hear his or her best.
2. describe tangible ways to enhance your relationships with your patients to improve hearing outcomes.
3. apply best practice patient management techniques to improve patient satisfaction and referrals.

**Speaker Bio** Shari Eberts is a hearing health advocate, writer, and speaker. She is the founder of Living With Hearing Loss, a blog and online community for people living with hearing loss and tinnitus. She serves on the Board of Hearing Loss Association of America. Her e-book *Person-centered Care from the Patient's Perspective* details her experience living with hearing loss. Shari holds a BS in Psychology from Duke University and an MBA from Harvard Business School.

**Disclosures** Shari Eberts has no relevant financial relationships to disclose. She is the Board Vice Chair of HLAA and receives no compensation.

**1:10 – 1:30 PM** Monday, October 18, 2021

**Title** **Increasing sensitivity to members of the LGBTQ community seeking audiologic care**

**Presenter** Emilie K. Clark, LMSW (presenting author), Ashley L. Koenig, MA, John Greer Clark, Ph.D.  
University of Cincinnati

**Abstract** This presentation looks at experienced discrimination and prejudice that members of the LGBTQ community frequently face when seeking health care services. Terminology will be reviewed along with LGBTQ population size statistics to highlight the unmistakably present but often overlooked numbers of LGBTQ individuals seeking and receiving health services. A discussion of the universality of implicit bias will be followed by recommendations for audiologists and their staff to create a more welcoming and comfortable experience for those within the LGBTQ community seeking audiological care.

**Learner Outcomes** Upon completion, participants will be able to:

1. discuss the universality of implicit bias and the need for each of us to examine biases within our personal and professional lives.
2. discuss their understanding of the sub populations within the LGBTQ community and the likelihood of past and future interactions with LGBTQ patients.
3. share with others in their employment sites strategies to further ensure equitable practices and increase positive interactions with LGBTQ patients.

**Speaker Bio** E.K. Clark works at Children's Aid supporting LGBTQ youth in navigating the mental health impacts of prejudice and increasing LGBTQ affirming care in health and mental health settings. A.L. Koenig is a doctoral student in School-Clinical Child Psychology at Pace University, and contributing author of *Creative Arts Therapies* and the *LGBTQ Community: Theory and Practice*. J.G. Clark is professor emeritus at the University of Cincinnati. An ARA past president, he co-authored *Counseling-Infused Audiologic Care*.

**Disclosures** J.G. Clark is an author for Pearson Education and KDP Amazon and receives royalty payments. The authors have no nonfinancial relationships to disclose.

**1:30 – 1:50 PM**

Monday, October 18, 2021

**Title** **Self-reported reasons for the non-use of hearing aids among Hispanic adults with hearing loss**

**Presenter** Jamie Desjardins (presenting author)

Syracuse University

**Abstract** Persons of Hispanic/Latinx ethnicity represent 17% of the entire population, and are the fastest growing minority group in the U.S. The rapid growth in the U.S. Hispanic/Latinx population since 1990, combined with higher life expectancies for Hispanic/Latinx at all ages, will almost triple the proportion of the elderly in the U.S. who are Hispanic/Latinx by 2050, from 7 percent in 2009 to 20 percent in 2050 (U.S. Census, 2010). In addition, nearly 1 in 7 Hispanic/Latinx has hearing loss, which is close to the overall national average (Argawal, Platz, & Niparko, 2008). While hearing aids are the most effective treatment for an age-related hearing loss, only 5% of Hispanic/Latinx adults with hearing loss use hearing aids (Arnold et al. 2019). However, the reasons for the non-use of hearing aids in this population remains unclear. The purpose of this study was to examine the self-reported reasons for the non-use of hearing aids among Mexican-American Hispanic adults who have hearing loss. 122 Hispanic adults with hearing loss, who did not currently or previously use a hearing aid, participated in this study. Participants completed a comprehensive hearing health questionnaire and The Hearing Handicap Inventory Screening Questionnaire (Ventry & Weinstein, 1983). Self-reported hearing loss, hearing handicap score, and health insurance status were the best predictors of an individual's willingness to use hearing aids to treat their hearing loss. The primary reasons cited for the non-use of hearing aids among Hispanics with hearing loss was the belief that their hearing impairment was not severe enough to warrant using a hearing aid and that hearing aids were unaffordable. Greater public health education regarding the deleterious effects of untreated hearing loss and the positive impact of amplification on cognitive, social and psychological health may be warranted to improve the usage rates of hearing aids in Hispanics.

**Learner** Upon completion, participants will be able to:

**Outcomes**

1. discuss the barriers affecting hearing aid use among Hispanic Adults
2. use The Hearing Handicap Inventory for Adults (HHIA) to measure hearing handicap in adults
3. describe the prevalence of hearing loss among Hispanics living along the U.S.-Mexico Border

**Speaker Bio** Dr. Desjardins is an Associate Teaching Professor and Director of Undergraduate Programs in the Department of Communication Sciences and Disorders at Syracuse University. Prior to her current position at SU, Dr. Desjardins was an Assistant Professor at the University of Texas at El Paso. The focus of Dr. Desjardins' research is on the aging auditory system, listening effort and speech perception in older monolingual and bilingual adults, hearing aid use and hearing health disparities.

**Disclosures** Dr. Desjardins has no relevant financial or nonfinancial relationships to disclose.

**1:50 – 2:10 PM** Monday, October 18, 2021

**Title** **Aural rehabilitation for low income adults**

**Presenter** Carole Johnson (presenting author)

University of Oklahoma Health Sciences Center

**Abstract** The United Way Community Hearing Aid Bank (UWCHAB) provides entry-level advanced digital technology hearing aids (ADTHAs) within an individualized aural rehabilitation program at low cost to adults with low incomes. Dr. Johnson will present the outcomes for and components of the UWCHAB and its auditory rehabilitation programs.

**Learner** Upon completion, participants will be able to:

**Outcomes**

1. identify unique aural rehabilitative needs of adults with low incomes
2. list adaptive strategies to be used with adults in need
3. describe outcomes of a community hearing aid banks for unserved and underserved adults

**Speaker Bio** Carole E. Johnson, PhD, AuD, is a professor at the University of Oklahoma Health Sciences Center. She has over 35 years' experience as a rehabilitative audiologist and is director of the Hearing Evaluation, Rehabilitation, and Outcomes (HERO) Laboratory. She has recently conducted a three-year randomized clinical trial on the benefits of entry-level digital hearing aids for patients with low-incomes funded by the Oklahoma Center for the Advancement of Sciences and Technology (OCAST Health-Research Grant 16-118).

**Disclosures** Dr. Johnson received a grant from OCAST HR16-118/ United Way. She has no relevant nonfinancial relationships to disclose.

**2:10 – 2:30 PM**

Monday, October 18, 2021

**Title** **Timing of referrals and recipient follow-up patterns of cochlear implant candidates as a function of geographic region and socioeconomic status**

**Presenter** Amanda Davis (presenting author) Andrea Bucker, AuD (Department of Audiology, UNC Health, Chapel Hill, NC), Noelle Roth, AuD (Department of Audiology, UNC Health, Chapel Hill, NC), Kelli Hicks, MD (Department of Otolaryngology/Head & Neck Surgery, University of North Carolina at Chapel Hill, Chapel Hill, NC), Margaret Dillon, AuD (Department of Otolaryngology/Head & Neck Surgery, University of North Carolina at Chapel Hill, Chapel Hill, NC), Kevin Brown, MD, PhD (Department of Otolaryngology/Head & Neck Surgery, University of North Carolina at Chapel Hill, Chapel Hill, NC), Matthew Dedmon, MD, PhD (Department of Otolaryngology/Head & Neck Surgery, University of North Carolina at Chapel Hill, Chapel Hill, NC)

University of North Carolina at Chapel Hill

**Abstract** The issues of accessibility in health care are widely recognized; however, there is limited research regarding access to cochlear implantation. Research demonstrates that patient characteristics (e.g., socioeconomic status and place of residence) and provider characteristics (e.g., availability) impact access to hearing health care, particularly among patients with low socioeconomic status and those who reside in rural areas. These disparities likely also influence access to the preoperative and postoperative audiological and medical evaluations. This study aims to elucidate potential barriers by examining the referral patterns and follow-up attendance of patients at an adult cochlear implant clinic in North Carolina from a geographic, economic, and social perspective.

**Learner Outcomes** Upon completion, participants will be able to:

1. identify potential barriers to cochlear implant candidacy evaluations and follow-up appointments.
2. assess potential implications of these barriers in personal clinical practice.
3. strategize towards creative solutions to the described barriers.

**Speaker Bio** Amanda Davis is a third-year Doctor of Audiology student at the University of North Carolina at Chapel Hill. Her interests include adult audiologic care, understanding hearing loss within a social justice framework, and alleviating disparities in access to hearing health care. She is interested in exploring community-based solutions to improve access to hearing health care, as well as addressing gaps in clinical education related to this topic.

**Disclosures** Amanda Davis has no relevant financial or nonfinancial relationships to disclose. Dr. Dillon is supported by a research grant provided to the university by MED-EL Corporation. Dr. Brown serves on the Surgical Advisory Board for MED-EL Corporation.

**3:30 – 3:50 PM**

Monday, October 18, 2021

**Title** **Factors Related to Self-Identification of Candidacy, Device Selection, and Self-Fitting of Over-The-Counter Hearing Aids**

**Presenter** Jasleen Singh, AuD, PhD\* (presenting author)  
Karen A. Doherty, PhD\*\*  
\* Department of Communication Sciences and Disorders at Northwestern University  
\*\*Department of Communication Sciences and Disorders at Syracuse University

**Abstract** The Over-the-Counter (OTC) Hearing Aid (HA) Act was passed in 2017 in an effort to make HAs more accessible. The purpose of the present study was to assess if consumers could navigate the three steps of the OTC-HA model: self-identify candidacy, self-selection and programming, and self-management of an OTC HA. Fifty-two participants were asked to self-report their degree of hearing loss, risk for ear disease, and complete questionnaires and measures related to cognition, locus of control, health literacy, HA self-efficacy, and technology commitment. All participants were asked to shop online from three pre-selected direct-to-consumer HA websites and select a device. Using the manufacturer's instructions, participants self-fit and programmed their devices. Participants' HA use and handling skills were evaluated using the Practical Hearing Aid Skills Test- Revised (PHAST-R), and real-ear verification was completed to determine how closely their device met prescribed target gains. Accuracy of self-reported degree of hearing loss and ear disease were determined from an audiological and ear disease risk assessment, respectively. Seventy-five percent of participants reported that they perceived their hearing loss to be in the mild-to-moderate range in at least one ear. Seven of the eight participants who were identified as being at risk for ear disease did not self-report any risk of ear disease. PHAST-R scores ranged from 45-100% and were significantly associated with the devices' instructional material. The digital step-by step instructions resulted in higher PHAST-R scores. Only 24% of the OTC hearing aids were within tolerance of NAL-NL2 targets.

**Learner Outcomes** Upon completion, participants will be able to:

1. identify and describe the three steps of the OTC hearing aid model.
2. identify unintended users of OTC hearing aids.
3. describe how manufacturer instructions and hearing aid user errors can impact programming, and hearing aid use and handling skills.

**Speaker Bio** Jasleen Singh is currently a Postdoctoral Fellow at Northwestern University. She recently completed her Ph.D. at Syracuse University and is a clinical Audiologist. Her research focuses on ways to improve the rate of hearing aid use among older adults. More specifically, she is interested in exploring how new models of hearing healthcare can impact hearing aid outcomes.

**Disclosures** The authors have no financial or nonfinancial relationships to disclose.

**3:50 – 4:10 PM**

Monday, October 18, 2021

**Title** **Hearing aid recommendations for older adults by audiologists and otolaryngologists**

**Presenter**

Elish Mahajan (presenting author)  
Sherri L Smith, AuD, PhD\*  
David L Witsell, MD, MHS\*  
Kristal M Riska, AuD, PhD\*  
Nosayaba Osazuwa-Peters, MPH, PhD\*  
Mina R Silberberg, PhD\*\*,  
\*Duke Department of Head and Neck Surgery & Communication Sciences  
\*\*Duke Department of Family Medicine and Community Health

4th year Medical Student at the Duke University School of Medicine

**Abstract**

A prior NIH funded study found that ENTs and audiologists disagreed on their recommendations for hearing aids for patients about 30% of the time. As a follow-up to the first study, we are investigating the patient factors and audiologic characteristics that are involved in hearing aid recommendations by otolaryngology providers and audiologists. We have developed survey to compare hearing aid recommendations of audiologist and otolaryngologists, focusing on the patient factors and audiologic characteristics that inform those recommendations. We will primarily use descriptive statistics to describe the frequency and distribution of responses. We plan to follow up this survey with focus groups with both otolaryngologists and audiologists to better understand the decision-making factors that go into a recommendation for or against hearing aids. We hope that the results from our survey and focus groups will help improve understanding between different providers in the hearing health care team and ensure patients receive proper hearing aid recommendations regardless of provider type.

**Learner Outcomes**

Upon completion, participants will be able to:

1. compare how different providers consider hearing aid recommendations.
2. discuss how patient history changes hearing aid recommendations as compared to audiological information alone.
3. adapt learnings from the survey and focus groups into their everyday practice in the hearing healthcare team.

**Speaker Bio**

Elish is a 4th year medical student at the Duke University School of Medicine hoping to specialize in Otolaryngology. He has a background working in the tech space before medical school and is interested in innovative ways to incorporate consumer technology into research.

**Disclosures**

Elish Mahajan has no financial or nonfinancial relationships to disclose.

**4:10 – 4:30 PM** Monday, October 18, 2021

**Title** **Hearing aid fitting considerations for patients with PTSD**

**Presenter** Marc Fagelson, PhD (presenting author)  
Emily McClelland, AuD; The Barranco Clinic; Winter Haven, FL  
Kim Schairer, PhD; Mountain Home VAMC, Johnson City, TN  
Julia McDowell, AuD; Brevard ENT Center; Rockledge, FL  
Sherri Smith, AuD, PhD; Duke University; Durham, NC

East Tennessee State University

**Abstract** Patients with posttraumatic stress disorder (PTSD) experience durable symptoms that may influence the efficacy of health-related interventions. In addition to re-experiencing the trauma, patients must cope with symptoms such as chronic hyperarousal, and exaggerated startle responses (American Psychiatric Association, DSM-V; 2013) that interact with or are exacerbated by other medical conditions such as hearing loss (Tanielian & Jaycox, 2008). The symptoms may also affect audiologic rehabilitation and measures of intervention efficacy, as Kricos, (2000) reported patients with hearing loss and co-occurring mental health diagnosis perceived greater hearing disability and less hearing aid benefit than unaffected individuals. 60 patients in a Veteran's Affairs hearing aid clinic were recruited for the current study. Participants completed the APHAB (Cox & Alexander, 1995) and a questionnaire that was developed for this study. 30 of the patients fit with hearing aids were service-connected for PTSD. The APHAB results revealed smaller hearing aid related change for the patients with PTSD on all four APHAB subscales, although the group differences were not significant. The study-specific questionnaire revealed that listening goals and hearing aid perceptions of these individuals focused on improved sound awareness, ostensibly reducing negative reactions to the acoustic environment. PTSD appeared to influence the potential of environmental sounds to trigger aversive memories and startle responses consistent with the PTSD diagnostic markers. Patients with histories of traumatic exposures may require modified approaches to hearing aid fittings, programming, counseling, and audiologic rehabilitation strategies.

**Learner Outcomes** Upon completion, participants will be able to:

1. identify patient characteristics associated with hearing and hearing aid use influenced by PTSD and traumatic exposures
2. support patient hearing aid use by addressing patient reports regarding aversive sounds
3. counsel patients with PTSD regarding their use of hearing aids in challenging situations and environments

**Speaker Bio** Dr. Marc Fagelson is Professor of Audiology at East Tennessee State University. He teaches several courses, covering Audiology's scope of practice from basic audiometry and pathologies to tinnitus management. In 2001, he opened the James H. Quillen VAMC tinnitus clinic, at which he provides direct patient contact and student supervision. Fagelson co-edited two books for Plural Publishing with Dr. David Baguley, and a Tinnitus Casebook, published by Thieme, is currently in production.

**Disclosures** Dr. Fagelson is an author for Plural publishing, Auricle Ink publishing and receives royalty payments. He is also a member of the Scientific Advisory Council, ATA.

**4:30 – 4:50 PM**

Monday, October 18, 2021

**Title** **Shared experiences among successful hearing aid users with high hearing aid self-efficacy.**

**Presenter** Lipika Sarangi (presenting author), Jani Johnson, AuD, PhD  
University of Memphis

**Abstract** Research has demonstrated that there is a link between an individual's hearing aid self-efficacy (HASE) and their decisions to purchase, use, and report satisfaction with amplification. There is some evidence to suggest that specific rehabilitative approaches can improve patients' HASE. However, questions remain about how to capitalize on individualized self-efficacy training in an audiologic intervention to optimize hearing aid outcomes. The present study examined the shared experiences of successful hearing aid users with high hearing aid self-efficacy in an effort to uncover those aspects of audiological interventions that were important contributors to these individuals' hearing aid success. An interpretive phenomenological approach was used for data collection and analysis. Four common themes were identified from participants' interview transcripts. These participants attributed their hearing aid success to having (1) an agreeable personality and positive attitude, especially as it related to expectations about the intervention, (2) intrapersonal motivation to hear better, (3) support from important others, and (4) a desire to develop a positive relationship with their hearing healthcare professionals. These self-identified predictors of success are consistent with Bandura's theoretical model of self-efficacy, supporting the application of this model to developing an individualized HASE training protocol. Future research will have to investigate whether such a protocol might ultimately facilitate success with hearing aids in daily listening.

**Learner Outcomes** Upon completion, participants will be able to:

1. identify aspects of audiologic intervention that can impact hearing aid success.
2. apply Bandura's self-efficacy theory to development of a HASE-based rehabilitation protocol.
3. discuss how a HASE-based rehabilitation protocol might be used to improve hearing aid outcomes.

**Speaker Bio** Lipika Sarangi is a PhD candidate at the School of Communication Sciences and Disorders at the University of Memphis. She is working with Dr. Jani Johnson in the Hearing Aid Research Lab. She has a master's degree in Speech and Hearing and worked as an audiologist in India for 6 years. Her research interests include improving hearing aid success in adults with hearing loss and identifying factors contributing to individual differences in hearing aid success.

**Disclosures** The authors have no relevant financial or nonfinancial relationships to disclose.

**4:50 – 5:20 PM** Monday, October 18, 2021

**Title** **The role of value in contemporary hearing care**

**Presenter** Howard Francis (presenting author)  
Duke University

**Abstract** This presentation will describe the principles and framework that define value-based healthcare as the emerging dominant system within which hearing care will be delivered in the coming years. The growing influence of large health systems in determining how healthcare funds are expended, require increasing engagement by hearing care professionals with other healthcare providers in ensuring that quality is maximized at the lowest cost across the lifespan and continuum of care. Opportunities to build coalitions that support early identification and mitigation strategies for communication challenges, particularly in the youngest and oldest members of our communities will be presented.

**Learner Outcomes** Upon completion, participants will be able to:

1. understand the concepts of value-based care.
2. understand how to pursue value in hearing healthcare.
3. build a team that cuts across community and institutional boundaries.

**Speaker Bio** Dr. Howard W. Francis, MD, MBA, FACS, is the Richard Hall Chaney, Sr professor of Otolaryngology and chair of the department of Head and Neck Surgery & Communication Sciences at Duke University Medical Center. He is a neurotologist with contributions that include the study of delivery models and best practices of hearing health care, and surgical education.

**Disclosures** Dr. Francis is a salaried employee at Duke University. He is a member of the OHNS Residency Review Committee, and a Director of the American Board of OHNS.

**8:30 – 8:50 AM** Tuesday, October 19, 2021

**Title** **Communication in times of a pandemic: The hearing impaired perspective**

**Presenter** Mathieu Hotton<sup>1,2</sup> (presenting author), Alexis Pinsonnault-Skvarenina<sup>3,4</sup>, Andréanne Sharp<sup>1,2</sup>, Ronald Choquette<sup>3</sup>, Ana Ines Ansaldo<sup>3,5</sup>, Élodie Tremblay<sup>3</sup>, Loonan Chauvette<sup>1</sup>, Jean-Pierre Gagné<sup>3,5</sup>, Adriana Lacerda<sup>3,5</sup>

<sup>1</sup>Laval University, Canada; <sup>2</sup>Centre interdisciplinaire de recherche en réadaptation et intégration sociale, Canada; <sup>3</sup>University of Montreal, Canada; <sup>4</sup>Centre de recherche interdisciplinaire en réadaptation du Montréal métropolitain, Canada; <sup>5</sup>Centre de recherche de l'Institut universitaire de gériatrie de Montréal, Canada

**Abstract** Some measures proposed to counter the spread of COVID-19 may negatively impact communication. While recent studies have shown that face masks affected hearing and increased anxiety and stress, few studies have investigated communicational and psychosocial effects of COVID-19 protective measures in daily communication settings.

**Learner Outcomes** Upon completion, participants will be able to:

1. identify the effects of COVID-19 sanitary measures on the communication of hearing-impaired individuals.
2. understand the effects of communication breakdowns on the mental health of individuals with hearing loss during a pandemic.
3. identify solutions and strategies to help reduce the impact of sanitary measures on communication that can be implemented in audiology practice.

**Speaker Bio** Mathieu Hotton is an audiologist and assistant professor at Laval University. He holds a PhD in experimental medicine and completed a postdoctoral fellowship with Jean-Pierre Gagné at the University of Montréal. Dr. Hotton is a clinical researcher interested in new technologies and rehabilitation approaches for hearing-impaired people. During his PhD, he worked on the effectiveness of frequency-lowering hearing aids and EAS cochlear implants. His postdoctoral research focused on the patient's needs assessment in audiology.

**Disclosures** The authors have no relevant financial or nonfinancial relationships to disclose.

**8:50 – 9:10 AM**

Tuesday, October 19, 2021

**Title**

**Pandemic related communication experiences and communication strategies**

**Presenter**

Silvana Tellerico (presenting author),  
Karen S. Helfer, PhD., Sara Mamo, PhD., Michael Clauss, PhD.

University of Massachusetts Amherst

**Abstract**

An online survey was administered to adults (21 years of age and older) residing in the United States during the summer and fall of 2020. The survey consisted of questions about hearing and speech understanding during various conditions (e.g., with and without the use of a face mask, in noise or in quiet). Participants were also asked, "Are there any strategies that you find especially helpful when talking to someone who is wearing a face mask? If so, please list them below." Of the 1703 survey responses (535 from younger adults, 478 from middle-aged adults, and 690 from older adults), 979 surveys included open-ended responses. Responses were analyzed through a thematic process which began with the development of a codebook. Codes were then applied to responses and uploaded into MAXQDA, a software used to sort open-ended responses by codes and demographics. Five major categories (active repair strategies, nonverbal strategies, written/captions, advocate, and environmental strategies, were created and covered almost 75% of all open-ended responses. This presentation will summarize the strategies reported by the participants and discuss differences in strategies related to age group, self-rated hearing, and use/non-use of hearing devices (hearing aids or cochlear implants).

**Learner  
Outcomes**

Upon completion, participants will be able to:

1. identify common strategies provided from open-ended survey responses.
2. compare differences in strategies across age group, hearing device use, and categories of self-rated hearing.
3. compare and/or contrast their experiences with communication strategies used during the pandemic to those reported by people who participated in the online survey.

**Speaker Bio**

Silvana Tellerico is a 4th-year AuD graduate student at the University of Massachusetts Amherst. She earned her undergraduate degree in Communication Sciences and Disorders from Elms College. She is currently completing her externship year in the Hearing Research Program at the Medical University of South Carolina. During her graduate career, Silvana served as both a Teaching Assistant and as a Research Assistant.

**Disclosures**

Silvana Tellerico has no relevant financial or nonfinancial relationships to disclose.

9:10 – 9:40 AM

Tuesday, October 19, 2021

**Title**

***Oyer Student Research Award Winner: What makes clear speech angry?***

**Presenter**



Madison Wageck (Presenting author), Sarah Hargus Ferguson, Liz Young

University of Utah

**Abstract**

Hearing loss is the most common sensory deficit noted in aging adults, and commonly known to negatively impact communication. However, literature also suggests a correlation between hearing loss and cognition in aging adults. Research on this topic is often centered around the cognitive domains of attention and memory but neglects another important domain: social cognition. Research suggests that those with hearing loss often experience social isolation and depression, but do those with hearing loss experience measurable changes in their social cognitive abilities?

The purpose of this quantitative study was to determine if group differences were present on the social cognitive assessment known as Advanced Clinical Solutions (ACS), in adults with and without hearing loss. Participants included 28 adults between the ages of 50-69 years: 14 adults with normal hearing and 14 adults with untreated hearing loss in the mild to moderate sensorineural range.

Group differences were noted on five of the thirteen subtests of the ACS. Overall findings from this study suggest that measurable differences are noted on both auditory and visual social cognitive tasks based on HL. Findings suggest that measurable differences are noted on both auditory and visual social cognitive tasks based on HL.

**Learner Outcomes**

Upon completion, participants will be able to:

1. describe similarities between speech spoken with intent to improve intelligibility for listeners with hearing loss (i.e., clear speech) and speech spoken while angry.
2. explain differences between clear speech that sounds angry and clear speech judged to sound neutral or positive in emotional valence.
3. instruct frequent communication partners of individuals with hearing loss how to produce clear speech that does not sound angry.

**Speaker Bio**

Madison Wageck received her Bachelor of Science (BS) in public health from Westminster College and anticipates graduating with her Doctor of Audiology (AuD) in May 2022 from the University of Utah. She is currently completing her 4th year audiology externship at the Stanford Ear Institute in Palo Alto, California.

**Disclosures**

Madison Wageck has no relevant financial or non-financial relationships to disclose.

**10:25 – 10:45 AM** Tuesday, October 19, 2021

**Title** **Group AR in 2021: Taking the rehab to the patient**

**Presenter** Caitlyn Whitson (presenting author)

University of North Carolina at Chapel Hill

**Abstract** Group counseling-based aural rehabilitation (AR) is a part of audiology that is often forgone in clinical practice given the challenges of participant recruitment, time and money spent planning, and lack of insurance reimbursement. However, evidence supports group-based programs as an essential component of a successful aural rehabilitation treatment plan. Typical AR programs focus on problem solving, communication strategies, hearing aid use, and aspects of living with hearing loss. Over the past year, use of virtual platforms for both formal education and informal social gatherings have skyrocketed. Older adults are using technology to stay connected more than ever, making now the perfect time to implement a virtual counseling-based AR series into your clinical practice. Subject matter may vary from month to month with aspects of AR-focused topics integrated throughout. Creating a series of interesting, audiology-based topics (such as tinnitus, improving communication with face masks, using mobile apps & other technology to improve communication, hearing loss prevention, cochlear implants, etc.) can keep patients engaged, returning each month, and inviting their friends/family to join. Integration of a successful online program will lead to more informed and engaged users of hearing devices, greater patient satisfaction, and may double as a marketing opportunity for new patient outreach.

**Learner** Upon completion, participants will be able to:

**Outcomes**

1. identify the key components of a successful virtual aural rehabilitation program.
2. prepare their own plans for a virtual counseling-based aural rehabilitation program.
3. summarize how implementing a virtual adult aural rehabilitation program can grow their clinical practice.

**Speaker Bio** Caitlyn Whitson, AuD, is a Clinical Instructor at the University of North Carolina at Chapel Hill's Hearing and Communication Center. A double graduate of UNC Chapel Hill, she received her Bachelor of Arts in Linguistics in 2013 and her Doctor of Audiology degree in 2019. Her clinical duties include graduate student precepting, adult hearing aid fittings, audiology and graduate assistant supervision, daily management of clinical inventory, and facilitation of the group aural rehabilitation program.

**Disclosures** Dr. Whitson is a salaried Clinical Audiologist at UNC Chapel Hill School of Medicine. She has no relevant nonfinancial relationships to disclose.

**10:45 – 11:05 AM** Tuesday, October 19, 2021

**Title** **Audiologists' perspectives on using low-gain hearing aids for bothersome tinnitus**

**Presenter** Candice Quinn<sup>1,2,3</sup> (presenting author), Tara Zaugg, AuD<sup>3</sup>

<sup>1</sup>Durham VA Health Care System, Durham, NC

<sup>2</sup>Duke University School of Medicine, Department of Head & Neck Surgery and Communication Sciences, Durham, NC

<sup>3</sup>VA RR&D National Center for Rehabilitative Auditory Research, Portland, OR

**Abstract** Tinnitus – defined as ringing, humming, or other sounds in the ears or head – is the most prevalent service-connected disability among Veterans. Tinnitus affects 10-15% of the adult population. For about 20% of these, tinnitus impacts their lives with respect to sleep disturbance, impaired concentration, and/or emotional reactions. These 20% are the most in need of clinical services. It has been shown that providing amplification via hearing aids for people with hearing loss can also be beneficial in reducing functional effects of tinnitus, presumably because amplifying environmental sounds reduces the contrast between the tinnitus and background sound, allowing the tinnitus to be more easily ignored. There have been increasing reports from the field of audiologists (both VA and non-VA) fitting low-gain hearing aids on patients with bothersome tinnitus who are not otherwise hearing aid candidates, with beneficial outcomes. In addition, some audiologists are fitting combination instruments (amplification plus sound generator), and using amplification, sound generator, and/or audio streaming for patients with bothersome tinnitus and normal hearing, again with reportedly beneficial results. These nontraditional fitting practices, however, have not been formally evaluated, so there is no research evidence in the peer-reviewed literature to support dispensing these devices for this purpose. It is essential for VA to show evidence supporting such practices to justify the continued use (and expense) of these devices with patients who otherwise do not qualify to receive hearing aids. This presentation will focus on the audiologist perspective on fitting low-gain hearing aids for tinnitus and provide insight into rehabilitative approaches for those patients with behaviorally normal audiograms, but chronic, bothersome tinnitus.

**Learner Outcomes** Upon completion, participants will be able to:

1. define and differentiate the different categories of tinnitus perception (i.e., spontaneous, temporary, occasional, intermittent, or constant).
2. describe a clinical tinnitus evaluation and evidence-based tinnitus management approaches.
3. describe the clinical advantages of fitting low-gain hearing aids on nontraditional hearing aid candidates.

**Speaker Bio** Candice Quinn AuD, PhD, FAAA, is a VA RR&D Research Investigator at the Durham VA Health Care System and an Adjunct Assistant Professor at the Duke University School of Medicine in the Department of Head & Neck Surgery and Communication Sciences. She is also an affiliate investigator for the VA RR&D National Center for Rehabilitative Auditory Research (NCRAR) in Portland, OR. Dr. Quinn's research program focuses on psychoacoustic evaluation and diagnosis of tinnitus, app-based development for tinnitus evaluation and sound therapies, and Progressive Tinnitus Management. She was recently awarded a VA RR&D Career Development Award – 2 to study the effects of Notched Noise Therapy on the perception of tinnitus within the Veteran population.

**Disclosures** Dr. Quinn is a consultant for Sonova International. She has no relevant nonfinancial relationships to disclose.

**11:05 – 11:25 AM** Tuesday, October 19, 2021

**Title** **FM/DM use for children in the mainstream: Always the best recommendation?**

**Presenter** Kristin Dilaj, AuD, PhD (presenting author), Jennifer Cox

New England Center for Hearing Rehabilitation, LLC

**Abstract** Students with hearing loss are most often placed in mainstream learning environments. One of the most common recommendations for all children with hearing loss is access to a personal FM/DM system. This is understandable considering the need for optimal access to the teacher's voice within the classroom and the need for access when students are developing speech and language skills. While DM recommendations are still appropriate for most children, numerous children have rejected DM use even as early as kindergarten. Students are reporting that they either do not require the DM system, they hear their peers better without the DM system, or that the quality of what they are hearing is poorer with the DM system. A reason that is not as common is that they "stand out" when using the DM system. Many of these children continue to be successful learners and listeners in mainstream listening environments without DM access.

Our hypothesis is that students with hearing loss that present with typical auditory processing abilities and excellent listening in noise abilities would result in earlier objection to the DM system than their peers with hearing loss. Our team will review scores from the Test of Auditory Processing (TAPS-3), BKB-SIN, and sentence in noise tests and compare with DM use in mainstream learning environments. Data will be presented for children age 5-18 years of age.

**Learner Outcomes** Upon completion, participants will be able to:

1. describe why FM/DM use is a common recommendation for children with hearing loss in the mainstream
2. identify test results and factors to consider when making an appropriate FM/DM recommendation for a student in a mainstream listening environment
3. describe instance when DM use may not be appropriate for a student in his/her/their mainstream educational listening environment

**Speaker Bio** Kristin Dilaj, AuD, PhD, is Co-Director and Audiologist at the New England Center for Hearing Rehabilitation, LLC. Her areas of clinical interest and research include cochlear implant programming strategies and outcomes, tools for evaluating functional listening in pediatrics, and pediatric aural (re)habilitation. She is a past president of the Academy of Rehabilitative Audiology, a state representative for EAA, and a member of the Connecticut EHDI Task Force.

**Disclosures** Dr. Dilaj is a Co-Director/Manager of New England Center for Hearing Rehabilitation, LLC and a Board Member for the Academy of Rehabilitative Audiology, a State Representative for Educational Audiology Association, Member of the Connecticut Early Hearing Detection & Intervention Task force, and a member of Audiology Quality Consortium.

**11:25 – 11:45 AM** Tuesday, October 19, 2021

**Title** **Clinical trial of a new protocol and clinical tool designed to assess the audiological needs of individuals with hearing loss.**

**Presenter** Mathieu Hotton, AuD, PhD (presenting author), Jean-Pierre Gagné

University of Montreal

**Abstract** Background: Needs assessment is an important part of the audiological evaluation. A protocol and a clinical tool (a questionnaire based on the needs assessment protocol) were recently developed to guide this intervention. It is important to explore the applicability and usefulness of the protocol and the clinical tool in clinical settings to maximize chances of adoption by clinicians.

Research objectives: 1) Measure the effects of the use of the proposed protocol and clinical tool on audiologists' workload and job quality; 2) Explore the relevance, usefulness, advantages and disadvantages of the protocol and clinical tool; 3) Identify facilitators and obstacles to their implementation in the clinic; 4) Identify the modifications that may be required to the protocol and clinical tool.

**Learner** Upon completion, participants will be able to:

- Outcomes**
1. assess the audiological needs of their hearing-impaired patients following a validated and standardized protocol.
  2. understand the potential effects of the implementation and use of the needs assessment protocol and of the clinical tool on their workload and job quality.
  3. recognize ways to facilitate the implementation of the protocol and clinical tool in their practice and to minimize its impact on their workload.

**Speaker Bio** Mathieu Hotton is an audiologist and assistant professor at Laval University. He holds a PhD in experimental medicine and completed a postdoctoral fellowship with Jean-Pierre Gagné at the University of Montreal. Dr. Hotton is a clinical researcher interested in new technologies and rehabilitation approaches for hearing-impaired people. During his PhD, he worked on the effectiveness of frequency-lowering hearing aids and EAS cochlear implants. His postdoctoral research focused on the patient's needs assessment in audiology.

**Disclosures** This study was funded by the Québec Ministry of Health and Social Services. The first author (MH) received a postdoctoral fellowship award from the Fonds de recherche du Québec en santé and from the Centre intégré universitaire de santé et de services sociaux du Centre-Sud-de-Lac Île-de-Montréal. Additional funds were provided by the Endowed research Chair of the Fondation Caroline Durand en audition et vieillissement de l'Université de Montréal, held by JPG.

**11:45 – 12:05 AM** Tuesday, October 19, 2021

**Title** **Beyond the free demo: establishing value and quality through a comprehensive hearing aid selection process**

**Presenter** Stephanie Sjoblad, AuD (presenting author), Patricia Johnson, AuD  
University of North Carolina at Chapel Hill

**Abstract** Hearing aid delivery models are changing with more third-party payers offering hearing aid “benefits,” big box retailers becoming a larger competitor, and the internet affording consumers an endless array of pricing and product. As OTC products begin to emerge, audiologists now, more than ever, need to demonstrate the value of their services in the hearing aid selection process, as it is unlikely we will be able to compete on price alone. The audiology community should consider updating the way patient care is delivered throughout the rehabilitation process, starting with a thorough and validated hearing aid evaluation and selection. In this session, we will discuss the benefits of utilizing a Functional Communication Assessment as part of the Hearing Aid Evaluation/Selection process. There are many tools readily available to help us provide our patients with personalized treatment plans, not just focused on the brand and model of the device. We can distinguish ourselves from retail options by returning to our roots as professionals of communication. For over fifteen years, The UNC Hearing & Communication Center has been successful utilizing this unique process to differentiate themselves in the ever-changing hearing aid delivery landscape.

**Learner Outcomes** Upon completion, participants will be able to:

1. describe the advantages to the patient and audiology profession of using outcome measures throughout the hearing aid selection and fitting process to ensure patient goals are considered throughout the process.
2. demonstrate ways to adapt service delivery models using evidence-based methods to establish the value of the audiologist while improving patient care and outcomes.
3. develop a model for hearing aid service delivery in your clinic that will increase revenue streams while maintaining patient loyalty.

**Speaker Bio** Stephanie Sjoblad, AuD is a Professor at the University of North Carolina-Chapel Hill in the Division of Speech and Hearing Sciences and Clinic Director for the UNC Hearing and Communication Center. She has held numerous leadership positions at both the state and national level. She is presently serving as a Director-at-Large for the Academy of Doctors of Audiology. A consumer of hearing instrument technology from childhood, Dr. Sjoblad offers a unique perspective to patients and students alike.

**Disclosures** Dr. Sjoblad has no relevant financial or nonfinancial relationships to disclose.

**Poster  
Presentation**

Monday, October 18, 2021

**Title** **Clinician-directed TeleAR training outcomes with adult cochlear implant users**

**Presenter** Claire Bernstein (presenting author)  
Diane Brewer, George Washington University;  
Dominique Calandrillo, Gallaudet University;  
Rivkah Nakhon, Gallaudet University;  
Nancy Muscato, University of South Florida;  
Kailey Introcaso, University of South Florida;  
Anne Olson, University of Kentucky Health Sciences Center;  
Cassandra Bosworth, Columbia University Medical Center;  
Gina Stillitano, Cleveland Clinic;  
Rachel Vovos, Cleveland Clinic;  
Sarah Sydlowski, Cleveland Clinic

Gallaudet University

**Abstract** Increasing numbers of adults who receive cochlear implants achieve high levels of speech perception (Holder et al., 2020) and quality of life (Moberly et al., 2020). For those who do not achieve such success, audiologic rehabilitation (AR) therapy may be warranted. Previous randomized controlled research showed significant improvement in speech recognition and psychosocial measures for an in-clinic AR treatment group compared to active control group (Bernstein, Brewer et al., 2021). The present study was designed to evaluate the effectiveness of an AR program delivered via telehealth.

**Learner  
Outcomes** Upon completion, participants will be able to:

1. describe the 3 key components of a telerehabilitation intervention program developed for postlingually deafened adult cochlear implant users.
2. list a key speech recognition outcome measure used for the intervention and control groups.
3. list at least 2 psychosocial outcome measures used for the intervention and control groups.

**Speaker Bio** Claire Bernstein received her Ph.D. in Audiology from Columbia University. Her clinical, teaching, and research work has focused on rehabilitative audiology with adult CI users. Dr. Bernstein and Prof Diane Brewer are Co-PIs with the Rehabilitation Engineering Research Center on Technology for Deaf/ Hard of Hearing at Gallaudet. Dr. Bernstein directed a clinical study on maximizing outcomes for adult CI users with in-clinic short-term AR, currently evaluating its effectiveness when delivered via a telehealth platform.

**Disclosures** The authors have no relevant financial or nonfinancial relationships to disclose.

<b>Poster Presentation</b>	Monday, October 18, 2021
<b>Title</b>	<b>Teleaudiology: A solution in search of a problem?</b>
<b>Presenter</b>	Harvey Abrams (presenting author), Christina Callahan, Lively Hearing Corporation  Lively Hearing Corporation
<b>Abstract</b>	<p>The adoption of teleaudiology among audiologists during the COVID-19 pandemic can be best described as an inverted U-curve - slow adoption during the early months of the pandemic followed by an increase in remotely delivered services as the crisis worsened with a return to conventional service delivery with the lifting of mandated social distancing. An important question to emerge from this trend is: can teleaudiology serve as a viable and successful model of hearing healthcare in the absence of crises that require an alternative to the conventional service delivery model? A model which, according to several federally-commissioned reviews, limits hearing aid uptake by imposing significant affordability and accessibility challenges.</p> <p>Our poster will describe a commercially developed teleaudiology approach to the adult hearing healthcare patient journey that pre-dates the COVID pandemic. Specifically, we will describe the Lively Hearing model of remote care to include an online hearing test, determination of candidacy, evaluation of risk, establishment of patient goals, execution of remote hearing aid tuning, and the utilization of scheduled face-to-face follow-up appointments to assess and optimize patient outcomes. Our poster will include a review of the benefits of such an approach as well as outcome data to date suggesting that a remote service delivery model can effectively address the access and affordability challenges imposed by the current hearing healthcare model while yielding positive patient reported outcomes.</p>
<b>Learner Outcomes</b>	<p>Upon completion, participants will be able to:</p> <ol style="list-style-type: none"> <li>1. describe the patient journey;</li> <li>2. describe the risk assessment process;</li> <li>3. compare outcome differences for patients who uploaded their audiograms to those who completed the online hearing test</li> </ol>
<b>Speaker Bio</b>	Harvey has served in a number of academic, clinical, research, administrative, and consulting capacities with VA, DoD, academia and industry to include Chief of Audiology and Speech Pathology and Associate Chief of Staff for Research and Development at the Bay Pines VA, Director of Research at the Army Audiology and Speech Center at Walter Reed, and Director of Audiology Research at Starkey. He is currently the Head of Research Audiology at Lively Hearing Corporation.
<b>Disclosures</b>	Dr. Abrams receives consultation fees, restricted shares, and travel reimbursement from Lively Hearing Corporation. He has no relevant nonfinancial relationships to disclose.

**Poster  
Presentation**

Monday, October 18, 2021

**Title**

**Nonverbal communication in hearing aid fittings: Eye contact**

**Presenter**

Jaime Roy (presenting author), Torri Ann Woodruff, Kathleen Cienkowski  
University of Connecticut

**Abstract**

The value of non-verbal communication skills has been demonstrated directly in other medical fields. Non-verbal communication is considered to be a vital building block of active listening and developing a therapeutic relationship. Although these results have been assumed to translate into positive outcomes in audiology, little research has investigated this area. In this study, a baseline incidence rate for the use of various non-verbal communication cues used by audiologists during hearing aid orientations was developed. This poster is an explicit discussion of the use of eye contact. These results allow for an analysis of the non-verbal skills of audiologists compared to other healthcare providers' standards and the impacts of current care provision models on these behaviors.

**Learner  
Outcomes**

Upon completion, participants will be able to:  
1. describe the current conventions of clinically appropriate eye contact.  
2. compare the current research's findings with this standard.  
3. contrast the existing conventions with the reality of clinical work.

**Speaker Bio**

Jaime Roy is a clinical audiologist at Ear, Nose, and Throat Center LLC in Stamford, CT. She completed her Bachelor of Arts in Communication Sciences and Disorders at the University of Maine in 2017 and her Doctor of Audiology at the University of Connecticut in 2021. She held the role of treasurer for two years for UConn's chapter of Student Academy of Audiology. Jaime completed her externship in Webster, TX at Bay Area Ear, Nose, and Throat Specialists.

**Disclosures**

Torri Ann Woodruff and Kathleen Cienkowski are employed by the University of Connecticut. Dr. Roy is an employee at Ear, Nose, and Throat Center LLC. Torri Ann Woodruff and Kathleen Cienkowski have held positions in ARA. Kathleen Cienkowski services a number of professional and community groups.

**Poster  
Presentation**

Monday, October 18, 2021

**Title**

**Non-verbal communication considerations in hearing aid fittings**

**Presenter**

Torri Ann Woodruff (presenting author), Kathleen Cienkowski  
University of Connecticut

**Abstract**

Across multiple disciplines, professionals are responsible for providing information, support, and insight to clients. Very broadly, in spoken language, non-verbal communication is made of the behaviors we engage in while speaking that do not directly impact the acoustic signal. Non-verbal communication cuts across counseling in audiology by giving additional meaning to the acoustic signal that clients who are D/deaf and hard of hearing may struggle to access. Research regarding the use of nonverbal communication in audiology is primarily the application of other disciplines' clinical knowledge to the realm of audiology. Various healthcare disciplines have researched the use of non-verbal communication to reinforce rapport. Nonverbal communication is a means of reflecting the clinicians' emotional state and can be used to indicate the importance of presented information. It is posited that nonverbal communication can support providers in shaping the client's attention and interest in a given topic or provoking further discussion within the clinical interaction. In order to understand the roles and uses of non-verbal communication within the context of audiology, it is first necessary to develop a foundation in nonverbal research. This poster will be an introduction to nonverbal communication and a summary of the literature from other disciplines that currently dominate the discourse around nonverbal communication in audiology.

**Learner  
Outcomes**

Upon completion, participants will be able to:

1. describe the current research on non-verbal communication.
2. compare the different uses of non-verbal communication.
3. contrast what is presented with current clinical practices.

**Speaker Bio**

Torri Ann Woodruff, M.S., is a Ph.D. candidate at the University of Connecticut. Torri Ann is interested in the intersection of public health, early intervention, and family support. She is currently preparing for her dissertation looking at the use of family education to support early intervention enrollment.

**Disclosures**

Torri Ann Woodruff and Kathleen Cienkowski are employed by the University of Connecticut. Dr. Torri Ann Woodruff and Kathleen Cienkowski have held positions in ARA. Kathleen Cienkowski services a number of professional and community groups.

**Poster  
Presentation**

Monday, October 18, 2021

**Title**

**Affirmative nonverbal cues in hearing aid appointments**

**Presenter**

Samantha Dart (presenting author), Torri Ann Woodruff, Kathleen Cienkowski  
University of Connecticut

**Abstract**

Research into the use of nonverbal communication in audiology contexts is limited compared to other healthcare professions. In this study, nonverbal communication is defined as body lean, body position, postural change, facial expression, eye contact, affirmative gesture, “unpurposeful” movements, and hand gestures. Anecdotally, affirmative gestures, inclusive of smiling and head nodding, may be perceived as friendly and meaningful behaviors for patient satisfaction. This study poster investigated audiologists' use of affirmative gestures in hearing aid fitting appointments. Three sessions directed by female providers were analyzed. Each session was coded by a trained coder for the parameters of non-verbal communication. Subsequently, focus was shifted to affirmative gestures and coded not only for when head nods and smiles occurred, but also for the duration of each. Affirmative gestures were found to be the third most used non-verbal cues in a hearing aid fitting appointment.

**Learner  
Outcomes**

Upon completion, participants will be able to:

1. list what constitutes nonverbal cues.
2. identify the use of affirmative nonverbal cues are used in clinical hearing aid fitting appointments.
3. explain how nonverbal cues can compound with verbal communication in a hearing aid fitting appointment.

**Speaker Bio**

Samantha M. Dart, B.S., is an AuD candidate at the University of Connecticut. Samantha is interested in working with the geriatric population, specifically working with the Veteran population. She is currently working at the Providence VA Audiology clinic for her fourth year externship prior to graduating.

**Disclosures**

Torri Ann Woodruff and Kathleen Cienkowski are employed by the University of Connecticut. Dr. Torri Ann Woodruff and Kathleen Cienkowski have held positions in ARA. Kathleen Cienkowski services a number of professional and community groups.

<b>Poster Presentation</b>	Monday, October 18, 2021
<b>Title</b>	<b>Preparing hearing help-seekers' for telehealth follow-up appointments: A new area of aural rehabilitation</b>
<b>Presenter</b>	Bailey Simon (presenting author) and Carole E. Johnson, PhD, AuD University of Oklahoma Health Sciences Center
<b>Abstract</b>	<p>Older adults with low incomes may benefit from telehealth audiology follow up appointments because of lack of reliable transportation. However, they may not own computers or smartphones, nor have the skills to use them.</p> <p>The purpose of this study is to assess the self-reported readiness of patients with low incomes from a community hearing aid bank in Central Oklahoma to receive follow up audiology appointments via telehealth. We also aimed to develop a protocol for developing patient readiness for telehealth.</p>
<b>Learner Outcomes</b>	Upon completion, participants will be able to: <ol style="list-style-type: none"><li>1. describe the readiness of adults with low incomes to engage in telehealth.</li><li>2. list important mobile device and computer skills for engaging in telehealth.</li><li>3. implement a protocol to prepare patients for telehealth.</li></ol>
<b>Speaker Bio</b>	Bailey Simon is a third-year Doctor of Audiology student at the University of Oklahoma Health Sciences Center in Oklahoma City. Bailey received her undergraduate degree in Communication Disorders from the University of Arkansas, along with minors in Communications, Theatre, Sociology, and Criminal Justice. Additionally, she functions as the Lead Student Coordinator for the United Way Hearing Aid Bank, which provides hearing aids at a reduced cost to low-income individuals in Oklahoma.
<b>Disclosures</b>	Both authors provide services in the United Way Hearing Aid Bank.

**Poster  
Presentation**

Tuesday, October 19, 2021

**Title** **Impact of self-reported polysensory loss on cognitive performance**

**Presenter** Elish Mahajan (presenting author),  
Sherri L Smith, AuD, PhD\*,  
David L Witsell, MD, MHS\*,  
Kristal M Riska, AuD, PhD\*,  
Nosayaba Osazuwa-Peters, MPH, PhD\*,  
Eric Adjei Boakye PhD, MA\*\*,  
Guy Potter, Ph.D.\*\*\*,  
\*Duke Department of Head and Neck Surgery & Communication Sciences  
\*\*Southern Illinois University School of Medicine  
\*\*\*Duke Department of Psychiatry and Behavioral Sciences

Duke University School of Medicine

**Abstract** Multiple prior large scale prospective and cross-sectional studies have demonstrated a relationship between having a single sensory impairment (such as hearing, smell, vision, balance) and having poorer cognitive performance. Fewer studies have looked at the effect of having multi-sensory impairment, defined as having two or more impairments, on cognition. We used the NHANES 2013-2014 cohort to investigate the relationship between self-reported multi-sensory impairment and objective cognitive function. The NHANES dataset included self-reported data on hearing, vision, smell, and taste and objective data on cognitive function including the digit symbol substitution test (DSST), animal fluency test (AF), and CERAD immediate and delayed recall subtest (CERAD W-L). We defined low cognitive performers as those scoring in the lowest 25th percentile for each test. Groups were formed based on the number of sensory impairments a participant had: zero sensory impairments, any one impairment, and any two or more impairments. Multivariable logistic regression was used to estimate odds ratios (ORs) and 95% confidence (CI) between sensory impairment groups across each cognitive test. From 2013-2014, 1554 individuals had complete data and met inclusion criteria. While multiple unadjusted comparisons showed statistically significant ORs, the only ORs that remained significant after adjusting for covariates was the any two or more sensory impairment and DSST comparison group. This result suggests having any two or more sensory impairments doubles your odds of being a low cognitive performer on the DSST. We see a borderline statistically significant association for single sensory impairment and DSST, suggesting poly-sensory loss in particular increases the odds of worse performance on DSST. The remaining groups show an independent relationship between sensory impairments and cognition, which we suspect maybe be due to the non-specific nature of the NHANES self-report questions.

**Learner  
Outcomes** Upon completion, participants will be able to:

1. define the relationship between polysensory impairment and cognitive performance.
2. apply this relationship between sensory loss and cognition into screening for the elderly.
3. to compare the relationship of self-reported sensory measures to objective measures when it relates to cognition.

**Speaker Bio** Elish is a 4th year medical student at the Duke University School of Medicine hoping to specialize in Otolaryngology. He has a background working in the tech space before medical school and is interested in innovative ways to incorporate consumer technology into research.

**Disclosures** Elish Mahajan has no relevant financial or nonfinancial relationships to disclose.

**Poster  
Presentation**

Tuesday, October 19, 2021

**Title**

**Educational seminar for lifelong learners with hearing loss: A university and private practice collaboration**

**Presenter**

Laura Gaeta (presenting author), Julia Ahlquist Tanner, The Practice Solution  
California State University, Sacramento

**Abstract**

As a private practice audiologist the seminar was an opportunity to provide opportunities for the ideal audience, lifelong learners with hearing loss. The seminar established the audiologist as an expert in the community and set the practice apart from others who were not offering aural rehabilitation services. For a university training program of M.S. in Communication Sciences and Disorders (CSAD) and B.S. in CSAD students, the seminar served as hands-on experience with concepts related to aural rehabilitation and opportunities to practice communicating with older adults. Seminar content was based on the Ida Institute's group AR lesson plans.

**Learner  
Outcomes**

Upon completion, participants will be able to:

1. describe the benefits of group AR for private practice audiologists and university programs.
2. discuss the materials, class organization, and power of group discussions.
3. summarize limitations in group AR research.

**Speaker Bio**

Laura Gaeta, PhD, is an assistant professor at California State University, Sacramento. Julia Ahlquist Tanner, AuD is a private practice audiologist. Julia is now an Audiology Practice Strategist and Advisor for the Practice Solution.

**Disclosures**

Dr. Gaeta is an employee of CSU Sacramento. Dr. Gaeta is also is a member of the American Academy of Audiology's Academic Programs Subcommittee and the American Academy of Audiology, the Accreditation Commission for Audiology Education Board of Directors, the BSA, ARA, and the HLAA California Board of Trustees. No compensation is received for any of these positions. Dr. Ahlquist Tanner is an audiologist and private practice owner at The Hearing Solution, and she will be The Practice Solution.

## Recommended Downtown Durham Restaurants

- **It's a Southern Thing** (Southern) \$\$  
605 W. Main St (0.4mi/ 7 min walk)  
(919) 294-9632  
*Dine-In & Takeout*  
Mon-Fri 10:30am-2pm, 4-9pm | Sat  
10:30am-2pm, 5-9pm  
Sun 10am-2pm  
Menu: [www.getssouthernfood.com/menus](http://www.getssouthernfood.com/menus)
- **James Joyce Irish Pub** (Pub Grub) \$\$  
912 W. Main St. (0.6 mi/ 12 min walk)  
(919) 683-3022  
*Dine-In/Takeout/Delivery*  
Mon-Thurs 4-11pm | Fri – Sun 12pm-11pm  
Menu: <http://jamesjoyceirishpub.com>
- **Luna Rotisserie & Empanadas**  
(South American) \$\$  
112 W. Main St (0.2mi/ 3 min walk)  
(984) 439-8702  
*Dine-In/Curbside Pickup/Takeout*  
Mon-Sat 11am-2pm & 5pm-8:30pm  
Menu: [www.lunarotisserie.com/](http://www.lunarotisserie.com/)
- **Mellow Mushroom** (Pizza) \$\$  
410 Blackwell Street (0.5mi/ 9 min walk)  
(919) 680-8500  
*Dine-In/Takeout/Delivery*  
Mon-Thurs 11am-10pm | | Sun 11-9pm  
Menu: [www.mellowmushroom.com](http://www.mellowmushroom.com)
- **Moe's Southwestern Grill** (Tex-Mex) \$  
359 Blackwell St. #115 (0.3mi/ 7 min walk)  
(919) 973-4797  
*Dine-In/Takeout/Delivery (Doordash)*  
Daily 11-9pm  
Menu: [www.moes.com](http://www.moes.com)
- **M Sushi** (Sushi) \$\$\$  
311 Holland St. (0.1mi/ 1 min walk)  
(919) 908-9266 *Dine-In/Takeout*  
Tues-Sat 5pm-10pm | Closed Sunday & Monday  
Menu: [www.m-restaurants.com/m-sush](http://www.m-restaurants.com/m-sush)
- **Pompieri Pizza** (Pizza) \$\$  
800 W. Main St. (0.5mi/ 10 min walk)  
(919) 682-4197  
*Dine-In/Takeout/Curbside Pickup*  
Sun 11:12am-9pm | Tue-Thurs 4:30-9:30pm  
Fri 4:30-10pm | Sat 11:12am-10pm  
Menu: [www.pompieripizza.com](http://www.pompieripizza.com)
- **Skewers Bar & Grill** (Pub Grub/Late Night)  
1013 W. Main St. (0.6mi/ 13 min walk)  
(919) 680-8048  
*Dine-In/Takeout/Delivery (via UberEats, Grubhub, & Postmates)*  
Daily 11am-12:30am  
Menu: [www.skewersbarandgrill.com](http://www.skewersbarandgrill.com)
- **Taberna Tapas** (Spanish Tapas) \$\$  
325 W. Main St. (0.2mi/ 4 min walk)  
(919) 797-1457  
*Dine-In & Takeout*  
Tues-Sun 5pm-10pm | Closed Monday  
Menu: [www.tabernatapas.com](http://www.tabernatapas.com)
- **Tobacco Road Sports Café** (American) \$\$  
280 Mangum St. #100 (0.4mi/ 8 min walk)  
(919) 937-9909  
*Dine-In & Delivery*  
Mon-Thurs 11am-11pm | Fri & Sat 11am-12am  
Menu: [tobaccoroadsportscafe.com/durham](http://tobaccoroadsportscafe.com/durham)
- **Torero's** (Mexican) \$  
800 W. Main St. (0.5mi/ 10 min walk)  
(919) 682-4197  
*Dine-In & Takeout*  
Sun-Thurs 11-9pm | Fri & Sat 11-9:30pm  
Menu: [www.torerosmexicanrestaurantsnc.com](http://www.torerosmexicanrestaurantsnc.com)

## Recommended Downtown Durham Restaurants

- **Beyú Caffè** (American) \$\$  
314 W. Main St. (0.2mi/ 4 min walk)  
(919) 683-1058  
*Serves Breakfast*  
Tues-Sun 7:30-3:30pm | Closed Mondays  
Menu: [www.beyucaffe.com](http://www.beyucaffe.com)
- **Dame's Chicken & Waffles** (Soul Food) \$\$  
530 Foster St. (0.3mi/ 5 min walk)  
(919) 682-9235  
*Dine-In/Curbside Pickup/Delivery (Via Grubhub)*  
Mon 10-3pm | Tues-Thurs 11-8pm  
Fri & Sat 10-9pm | Sun 10-4pm  
Menu: [www.dameschickenwaffles.com](http://www.dameschickenwaffles.com)
- **Blue Note Grill** (BBQ) \$\$  
709 Washington St. (0.6mi/ 11 min walk)  
(919) 401-1979  
*Dine-In/Takeout/Delivery*  
*(Via Doordash/UberEats/Grubhub)*  
Tues-Sat 11-10pm | Closed Sundays & Mondays  
Menu: [www.thebluenotegrill.com](http://www.thebluenotegrill.com)
- **Durham Food Hall** \$\$  
530 Foster St., Suite 1 (0.3mi/ 5 min walk)  
(919) 682-4197  
*Online Order for Pickup & Delivery*  
Mon-Thurs 6:30am-9pm | Fri 6:30am-9pm | Sat 7am-10pm  
Sun 7am-9pm  
Menu: <https://durhamfoodhall.com>
- **Boricua Soul** (Puerto Rican/Soul Food Fusion) \$\$  
406 Blackwell Street (0.4mi/ 8 min walk)  
(919) 680-8500  
*Dine-In/Curbside Pickup & Delivery (Via UberEats)*  
Thurs 12-7pm | Fri & Sat 12-8pm | Sun 12-6pm  
Menu: <https://boricuasoulnc.com>
- **Enzo's Pizza Co.** (Pizza) \$\$  
2608 Erwin Rd., Ste 140 (2.9mi/ 9 min drive)  
(919) 308-3696  
*Takeout & Delivery Available*  
Sun-Thurs 11am-10pm | Fri & Sat 11am-11pm  
Menu: [enzospizzaco.com/durham-nc](http://enzospizzaco.com/durham-nc)

- **Bull City Burger/Bull City Burrito Pop Up** (American/Tex-Mex) \$\$  
 107 E. Parrish St. (0.2mi/ 4 min walk)  
 (919) 680-2333  
*Dine-In/Curbside Pickup/Takeout Available*  
 Tues-Thurs 4:30-9:30pm | Fri & Sat 11-10pm  
 Sun 11-9pm  
 Menu: [www.bullcityburgerandbrewery.com](http://www.bullcityburgerandbrewery.com)
- **Foster Street Coffee** (Southern & Beers) \$\$  
 530 Foster St. #2 (0.3mi/ 5 min walk)  
 (919) 797-9555  
*Dine-In & Curbside Pickup Available*  
 Mon-Fri 7am-7pm | Sat & Sun 8am-7pm  
 Menu: [www.fosterstreetcoffee.com](http://www.fosterstreetcoffee.com)
- **Copa** (Cuban) \$\$  
 107 W. Main St. (0.2mi/ 3 min walk)  
 (919) 973-0111  
*Takeout & Delivery Available*  
 Tues-Thurs 6-9pm | Sat-Sun 6-10pm  
 Menu: [copadurham.com](http://copadurham.com)
- **Fullsteam Brewery** (Southern & Beers) \$\$  
 726 Rigsbee Ave. (0.5mi/ 10 min walk)  
 (919) 682-2337  
*Dine-In/Takeout/Delivery Available*  
 Mon-Thurs 12-10pm | Fri & Sat 12pm-12am | Sun 12-9pm  
 Menu: [www.fullsteam.ag](http://www.fullsteam.ag)
- **Cucciolo Osteria Durham** (Italian) \$\$  
 601 W. Main St. (0.3mi/ 6 min walk)  
 (984) 243-8744  
*Dine-In & Takeout Available*  
 Sun-Thurs 5-9pm (Closed Tuesday)  
 Fri & Sat 5-10pm  
 Menu: [www.cucciolodurham.com](http://www.cucciolodurham.com)
- **Goorsha** (Ethiopian/Vegetarian/Vegan) \$\$  
 910 W. Main St. (0.6mi/ 12 min walk)  
 (919) 588-4660  
*Dine-In/Takeout/Delivery (Via Grubhub)*  
 Mon-Fri 5-10pm | Sat-Sun 12pm-10pm  
 Menu: [www.goorshadurham.com](http://www.goorshadurham.com)
- **Bar Vigile** (Global Food/Chacuterie/Cocktails) \$\$\$  
 105 S Mangum St, Durham, NC 27701(0.2mi/5 min walk)  
 (919) 973-3000  
 Mon-Thurs 5-11pm | Fri-Sat 5pm-12am  
 Menu: <https://www.barvirgile.com/menu>

- **Viceroy** (Indian/Fusion) \$\$  
335 W Main St, Durham, NC 27701 (0.2mi/4 min walk)  
(919) 797-0413  
*Dine-In/Takeout/Delivery*  
Wed-Mon 5-10 pm  
Menu: <https://www.viceroydurham.com/dinnermenu>
- **Alley Twenty Six** (New American/Chacuterie) \$\$  
320 E Chapel Hill St, Durham, NC 27701 (0.1mi/2 min walk)  
(984) 439-2278  
*Dine-In/Takeout*  
Wed-Sat 5pm-12am | Sun 10:30-2pm, 4-10pm  
Menu: <https://www.alleytwentysix.com/dine-in-menu>
- **Pizzeria Toro** (Italian) \$\$  
105 E Chapel Hill St, Durham, NC 27701 (0.1mi/3 min walk)  
(919) 908-6936  
*Dine-In/Takeout*  
Mon-Fri 4pm-11pm | Sat- Sun 11am-11pm  
Menu: [http://pizzeriatoro.com/toro\\_dinner.pdf](http://pizzeriatoro.com/toro_dinner.pdf)
- **The Federal** (Steakhouse) \$\$  
914 W Main St, Durham, NC 27701 (0.6mi/13min walk)  
(919) 680-8611  
*Dine-In/Takeout*  
Daily 4-11pm  
Menu: <https://www.thefederal.net/menu>