Hear It!

Quadrimester
Newsletter from the
Audiology Committee



(d|b|a) International Association of Communication Sciences and Disorders

The non-profit worldwide organization of professionals and scientists in communication, voice, speech language pathology, audiology and swallowing.

VISION:

Audiology Committee has a global vision to facilitate better understanding, knowledge and care of the auditory system and its disorders.

MESSAGE FROM
BRIAN B. SHULMAN,
PhD, CCC-SLP, ASHA Fellow,
FASAHP, FNAP, President
Elect, IALP



Dear Colleagues,

I hope this message finds you and yours well during these challenging and unprecedented times around the globe. I look forward to my continued collaboration with each of our committees and our larger membership base to advance the vision and mission of the International Association of Communication Sciences and Disorders (IALP) together. Our members have always made a significant impact on the lives of those we serve while, at the same time, advancing the science of our respective professions.

My personal best wishes are extended to each of you. Stay well and stay safe.

Cordially,

Printhen_

Brian B. Shulman

December 2020 / VOL 2

MESSAGE FROM TAMER ABOU-ELSAAD MD., PhD, Secretary of IALP

Dear Colleagues,

I congratulate you and the audiology committee for this initiative. To the best of my knowledge you are the first to release a committee- specific scientific newsletter. Best of luck and keep the good work up.

I do hope that in the days to come the 'Hear It' Newsletter will promote greater interaction among the professionals, in achieving the Vision and Mission of IALP.



Warm regards, Tamer Abou-Elsaad

EVENTS:

1.International Older Person's Day

1st October; https://www.un.org/en/events/olderpersonsday/

Social Distancing and Interactions: Challenges for Adults with Age Related Hearing Loss in the Era of COVID-19

The world is experiencing growth in the number and proportion of older persons such that 10-14% of the population in the developed countries are 65 years or older. The World Health Organization estimates that approximately one-third of persons above 65 years are affected by disabling hearing loss. Hearing loss in older adults is a complex phenomenon, in which sensory, cognitive and central factors are involved. It often involves age-related co-morbidities, and affects many aspects of life: cognitive, social, psychological and others.

The Audiology Committee of IALP observed the United Nations International Day of Older Persons, with a webinar organized and moderated by Dr. Limor Lavie, Israel. The webinar aimed to focus on age related hearing loss, and the unique effect of COVID-19 pandemic on people with hearing loss and in particular on older adults. Three leading researchers reviewed core issues concerning age related hearing loss and COVID-19:

<u>Prof. Barbara Weinstein: COVID, age-related hearing loss and loneliness: the connections.</u>

The COVID-19 pandemic has required countries throughout the world to implement strategies to mitigate the spread of the virus via respiratory droplets expelled from the mouth when people speak, sing, cough or sneeze. The need to quarantine and to physically distance has had the effect of limiting meaning contact with family and friends which is especially pronounced for older persons living alone. For some the feeling of loneliness is even worse than fear of contracting the novel virus.

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Reduction in the opportunity to communicate with others often translates into reduced need to use one's hearing and hearing aids. The absence of opportunities to communicate compounds the feelings of loneliness especially for persons with hearing loss. The consequences are often dire in terms of morbidity and mortality.

The necessity to wear face masks has created a barrier to communication for persons with normal hearing, with hearing loss, for health care professionals and patients, alike.



Face coverings block lip reading impeding access to visual cues, dampen speech, and filter out the high frequencies so critical to speech understanding. Social distancing further compromises audibility given the relation between sound intensity and physical distance. As effective communication and patient centered care are foundations of health care delivery, the communication breakdowns/barriers in health care settings now exacerbated by COVID-19 mitigation strategies, have devastating consequences for health care delivery and outcomes.

The COVID-19 pandemic seems to have shined a light on the burdens of hearing loss, a highly prevalent and formerly invisible handicap. As audiologists we must help minimize the ageist discourse regarding the "stigma of hearing loss" and the fact that "hearing loss is a normal part of the aging process". For older adults to remain vital and to maintain their sense of belonging, it is imperative that we help them retain their connectedness and communality. We must underscore the connection between hearing status, communicative ability, and engagement and become the go to professionals for strategies, technologic tips, and environmental modifications which are essential to delivery of quality health care be it virtual or in person.

<u>Prof. Boaz Ben-David: Cognitive and communication challenges for older adults during COVID-19 social distancing.</u>

Social isolation, enforced in a response to the outbreak of COVID-19, significantly increases an experience of loneliness among the aging population and puts them at greater risk for mental health distress and cognitive decline. Given the pivotal role of social interactions in cognitive resilience and mental health, clinicians should target on-line social experience in older population. However, online social interactions (and telehealth), are especially challenging in older age. In one word – Zooamstrope.

In a recent review of the literature conducted in my lab, we discussed two main factors that place older adults at risk of performing below their cognitive potential: sensory agerelated changes and ageism. Both factors are affected by COVID-19 restrictions, and both affect social interactions. Age-related sensory degradations, visual and auditory, reduce the quality of the input signal, increasing the demand on cognitive resources to decipher the signal, leaving less resources available to conduct high level processing.





Indeed, in the lab, when by mimicking age-related sensory changes for younger adults (reducing the quality of the signal), erases age-related changes in cognitive performance. Consider video conferencing challenges: poor connectivity, loss of synchrony, distortions, multiple speakers, poor visibility of speaker's articulators. All of these, combined with age-related sensory degradation, impair older adults' cognitive performance in the situation. No wonder that many older adults limit the use of video-conferencing, as they simply do not enjoy it. Last, but not least, ageism. The predicament arising from negative ageist stereotypes on cognitive decline can be experienced as a self-evaluation threat leading to decreased performance, thus fulfilling the ageist prophecy. In other words, if you feel that you are tested and everyone believes you will fail on Zoom, you will fail. You will avoid using it, and limit even further your social circle – Zoomastrophe.

In my eyes, our most important task: Fight ageism! Following COVID-19, public ageist derogatory statements receive some legitimization. For example, public officials suggest "sacrificing" the elderly to save the economy, some hospitals suggest using 65 as a cutoff age when deciding whether to provide ventilators. This discussion presents older adults as a homogenous group, weak, expensive and maybe selfish; instead of presenting the pandemic as related to all of us, stressing heterogeneity in older age, and the active and important role they play in society and culture. In this atmosphere, no wonder many older adults refrain from online interactions, from social activity and even from seeking medical and mental help. Instead of turning our backs to older adults, we should turn to them, lend our ears and listen.

Dr. Limor Lavie: Hearing rehabilitation in older adults and COVID-19: new considerations for old challenges.

The answer for many of the challenges faced by older adults with hearing loss is in aural rehabilitation. While some of the needs and difficulties of people with presbyacusis have changed during COVID-19, the need for good communication is as valid as always, and rehabilitation is as important as in pre-COVID times. Hearing rehabilitation is a complex and prolonged process. The complexity of hearing aid fitting in older adults stems from a combination of the various factors involved in the ability of older individuals with presbyacusis to perceive and understand speech, and from the variety of factors that affect the success with hearing rehabilitation. A regular practice in aural rehabilitation should take in consideration the hearing status, age-related and hearing loss-related changes in auditory processing and age-related changes in cognitive abilities. Physical, psychological, personal and social factors should be considered as well, together with the potential of the auditory system for behaviorally relevant plasticity.



Aural rehabilitation is a long journey, in which changes in auditory processing and in cognition are expected over time when using the hearing aids.

The social distancing, the cancellation of many activities in which older people were engaged, and the extensive use of technology for communication, have changed the needs and considerations in rehabilitation.

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The course of the fitting process has changes as well, because many older adults tend to avoid clinic visits, and patients can hardly experience the use of their devices in most of the past challenging environments. In addition, conversations under physical distancing and behind masks, which not only eliminate lip reading, but also reduce intelligibility, add new challenges for communication and rehabilitation. Thus, considerations in hearing rehabilitation should include both current and future communication needs, technology challenges, reduced family support due to social distancing, fine tuning for speech under face masks and remote care. Remote care should include not only fine tuning of the hearing aids, but also counselling on listening strategies, tips for successful use of the hearing aids and filmed demonstrations of daily use and maintenance of the hearing aids.

Untreated hearing loss in the elderly is connected with maladaptive changes in the auditory system, reduced cognitive abilities, larger odds for falls, loneliness and depression. Hearing rehabilitation can impede these undesirable results and is as important during COVID as it is always. We should encourage our patients to use the hearing aids even if their social life is less active currently, and we should use all the means we have to increase the success with rehabilitation. Creativity and careful listening can make the change in a changing world.

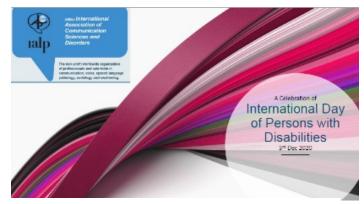
Here is the link https://player.vimeo.com/video/465016615 to access a recording of this wonderful seminar.

2. International Day of People with Disabilities

3rd December

The Audiology Committee of the IALP celebrated the International Day of Persons with Disabilities on 3rd of Dec 2020.

The occasion was marked by holding a series of webinars by leading researchers. The titles and presenters are given below.



- 1. Prof Suzanne C Purdy, Dr Bill Keith and Ms Leonie Wilson, Auditory processing disorder: From advocacy to consensus
- 2. Prof Thais Morata, Environmental chemicals and potential risks to our hearing
- 3. Prof Katrin Neuman, A survey on the global situation of newborn and infant hearing screening
- 4. Prof Christine Yoshinaga-Itano, Universal newborn hearing screening and its role in preventing language and literacy disability
- 5. Dr Shelly Chadha, Hearing across the life course and the relevant recommendations of the World Report on Hearing

All talks were delivered via zoom. Recordings of the presentations can be found at on the IALP Audiology Committee's "Other Resources" page (https://ialpasoc.info/other-resources/?id=233).

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3. World Hearing Day 3rd March 2021 "Hearing Care For All!"

Screen, Rehabilitate, Communicate,

As part of World Hearing Day 2021, the World Hearing Forum (WHF), the World Health Organization (WHO) and the Coalition for Global Hearing Health (CGHH) are inviting proposals for WHF-CGHH Small Grants. You can apply for a grant of up to \$800 USD to cover expenses related to World Hearing Day activities by the 11th of January. A maximum of 30 grants will be awarded.

More information can be found at cghh.usu.edu/smallgrants/2021/

4. International Conference in India on Disability Certification

For details contact: E: ialpaudcon@gmail.com or visit: www.aiishmysore.in



QUESTION AND ANSWER WITH DEBARA L. TUCCI

M.D., M.B.A., Director of the National Institute on Deafness and Other Communication Disorders (NIDCD) at the National Institutes of Health (NIH), an agency within the United States Department of Health and Human



Dr. Tucci is an otolaryngologist surgeon-scientist and recently completed her first year as NIDCD director. She is the first woman to hold the position in the institute's 32-year history. NIDCD's mission is to conduct and support biomedical research and research training on the normal and disordered processes of hearing, balance, taste, smell, voice, speech, and language.

What is the current focus of hearing research at NIDCD?

Current NIDCD-funded hearing research promises to advance science in ways that directly impact patient care. For example:

 NIDCD-supported research on otitis media (OM) is improving our understanding of susceptibility and pathogenesis of this pervasive infection.

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- An NIDCD research team is seeing promising results in their investigation of ways to prevent hearing loss caused by the cancer treatment drug cisplatin. Work by NIDCD investigators has shown that this life-saving cancer drug lingers in the inner ear after treatment and kills the sensory hair cells that detect sound. Further research has shown that hearing loss may be prevented or reduced in those who use statin medications, and a clinical trial is planned to test this theory.
- Our tinnitus research portfolio focuses on exploring the neural basis of this disorder and on developing effective interventions for the millions of people affected by it.
- Gene therapy continues to be an active research focus for NIDCD. Using gene therapy, NIDCD researchers have successfully improved hearing and balance in mice.
- Another NIDCD priority is supporting research to improve assistive device technology to benefit those with hearing loss.

What areas do you see as upcoming in hearing research?

Gene therapy research is an area of great promise. Scientists must continue to identify and characterize gene mutations that cause hearing impairment. Researchers then can use this information to develop and improve gene therapies to treat hearing disorders caused by single gene mutations.

Another research area that I expect will yield important advancements is perfecting drug delivery systems for auditory disorders. Development of better technologies to image the human inner ear will provide tremendous potential to improve diagnoses and treatment opportunities. And, on the vaccine front, OM research could identify immune pathways that will guide effective vaccine development as a successful OM prevention strategy.

What are your plans in reaching the underserved people with hearing loss?

NIDCD is committed to making treatments accessible and affordable to all populations inclusive of gender, race, ethnicity, socioeconomic status, geographic location, and communication method by supporting research that develops a range of innovative technologies and approaches. NIDCD recognizes that the needs of most adults with hearing loss are not currently met, and the cost and accessibility of hearing aids are major barriers. NIDCD-supported research and recommendations have contributed to removing some of the regulatory barriers to hearing health care in the United States. Currently, NIDCD supports research to:

- reduce disparities in hearing health care on the U.S-Mexico border.
- adopt culturally relevant approaches for community health workers using teleaudiology to improve access to hearing health care.
- evaluate community-based patient navigator intervention to increase the rate of follow-up testing for infants with hearing loss.

Global hearing health and health care is also an NIDCD priority. I co-chair The Lancet Commission on Hearing Loss, which pursues innovative ideas that challenge accepted thinking on identification and treatment of hearing loss worldwide. The commission seeks to develop creative approaches focused on policy solutions and the use of new technologies and programs to enable those with hearing loss worldwide to be fully integrated into society.

DOES COVID-19 IMPACT OUR HEARING? AN UPDATE FROM THE LITERATURE

In January 2020, WHO declared a global health emergency of international concern due to the outbreak of the novel SARS-CoV-2 leading to COVID-19 (WHO 2020). The virus impacts the upper respiratory system and involves fever and coughing. This can lead to pneumonia and organ failure (Koumpa et al., 2020). The potential immediate or long-term impact of this virus on hearing is unknown. There has not been a documented relationship between hearing loss and previous viruses (eg., SARS-CoV-1 and MERS-CoV). Currently, a low number of recent studies are examining a possible relationship between hearing and COVID-19.

The first mention of a possible relationship between COVID-19 and hearing loss was in April (Sriwijitalai & Wiwanitkit 2020). Of 82 cases of COVID 19 in Thailand, one older lady developed hearing loss. The following week, Mustafa (2020) reported a decrease in hearing levels in 20 patients (aged 20-50 years) with asymptomatic COVID-19 as compared to a control group. They presented with significantly worse transient evoked otoacoustic emissions and hearing in the high frequencies. Soon after, a group in Iran reported six patients with COVID-19 (aged 22-40 years) had a unilateral mild to moderate hearing loss (Karimi-Galougahi, et al., 2020). In addition, four patients presented with tinnitus and two had vertigo.

In July, a study from the UK followed patients with COVID-19 8 weeks after discharge. Of the 138 patients followed up, 121 had included questions about hearing and/or tinnitus. Of those 121 patients, 16 (13.2%) patients (aged 44-82 years) reported a change in their hearing and/or tinnitus (Munro et al., 2020). The use of masks may be highlighting an undiagnosed pre-existing hearing loss (Munro et al., 2020). In September, a study from Turkey documented the symptoms of 155 patients with COVID-19 (18-72 years) admitted to hospital (Elibol, 2020). Four patients (2%) had ear pain, two (1.2%) had tinnitus, and one (0.6%) had hearing loss. Another study from Turkey reported a woman (35 years) who was asymptomatic for COVID 19 presented with acute otitis media and conductive hearing loss (Fidan, 2020). A larger study in Europe included patients with COVID-19 from 18 European hospitals including France, Italy, Spain, Belgium, and Switzerland (Lechien et al. 2020). Out of 1,420 patients with COVID-10 who participated, 358 (25%) reported ear pain, 6 (0.4%) reported vertigo, and 5 (0.3%) of patients reported tinnitus.

There have been two case reports and results from a study in China (Cui et al. 2020; Han et al. 2020; San, Lui, Wang 2020). The first report described a patient (47 years) with COVID-19 who experienced vertigo (Han et al., 2020). Another study details the symptoms in a man (38 years) from Wuhan with COVID-19 pneumonia. The patient presented with binaural hearing loss and tinnitus which lasted two months (San, Lui, Wang 2020). Finally, twenty patients (32-72 years) from three hospitals required ENT consultation. Of those 20 patients, one patient reported tinnitus (5%) and one patient had otitis externa (5%).

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There have also been reports of sudden onset sensorineural hearing loss (SSNHL) in people who were previously well with no other attributable cause for SSNHL. Degen et. Al., (2020) reported a man (60 years) with severe COVID-19 requiring a stay in the intensive care unit present with a right-sided deafness and a left sensorineural hearing loss. Two other reports found two individuals with SSNHL who had had asymptomatic COVID 19 (Rhman et al., 2020; Kilic et al., 2020). The amount of noise in the intensive care unit may be masking a possible early hearing loss (Koumpa et al., 2020).

References:

Cui, C., Q. Yao, D. Zhang, Y. Zhao, K. Zhang, E. Nisenbaum, and X. Liu. (2020). "Approaching Otolaryngology Patients during the COVID-19 Pandemic." Otolaryngol Head Neck Surg, doi:10.1177/0194599820926144.

Degen C, Lenarz T, Willenborg K. (2020). Acute profound sensorineural hearing loss after COVID-19 pneumonia. Mayo Clin Proc, 95:1801–3.

Elibol, E. (2020). Otolaryngological symptoms in COVID-19. European Arch Oto-Rhino-Laryngo, doi.org/10.1007/s00405-020-06319-7.

Fidan, V. (2020). New Type of Corona Virus Induced Acute Otitis Media in Adult. Amer J Otolaryngol, 102487. doi:10.1016/j.amjoto.102487.

Han, W., B. Quan, Y. Guo, J. Zhang, Y. Lu, G. Feng, and Q. Chen. (2020). The Course of Clinical Diagnosis and Treatment of a Case Infected with Coronavirus Disease 2019. J Medical Virology, 92 (5): 461–463. doi:10.1002/jmv.25711.

Karimi-Galougahi, M., Naini, A., Raad, N., Mikaniki, N., Ghorbani, J. (2020). Vertigo and hearing loss during the COVID-19 pandemic - is there an association? Acta Otorhinolaryngologica Italica, Jun 10, doi: 10.14639/0392-100X-N0820.

Kilic O, Kalcioglu MT, Cag Y, et al. (2020). Could sudden sensorineural hearing loss be the sole manifestation of COVID-19? An investigation into SARS-COV-2 in the etiology of sudden sensorineural hearing loss. Int J Infect Dis, 97:208–11.

Koumpa FS, Forde CT, Manjaly JG. (2020). BMJ Case Rep; 13:e238419. doi:10.1136/bcr-2020-238419.

Lechien, J. R., C. M. Chiesa-Estomba, S. Place, Y. Van Laethem, P. Cabaraux, Q. Mat, and S. Saussez. (2020). Clinical and Epidemiological Characteristics of 1,420 European Patients with Mild-to-Moderate Coronavirus Disease 2019. Journal of Internal Medicine. doi:10.1111/joim. 13089.

Munro, K., Uus, K., Almufarrija, I., Chaudhurib, N., Yioeb, V. (2020). Persistent self-reported changes in hearing and tinnitus in post-hospitalisation COVID-19 cases. Int J Audiology, Jul 31;1-2, //doi.org/10.1080/14992027.2020.1798519

Rhman SA, & Wahid AA. (2020). COVID-19 and sudden sensorineural hearing loss: a case report. Otolaryngol Case Reports, 16:100198.

Sun, R., H. Liu, and X. Wang. (2020). Mediastinal Emphysema, Giant Bulla, and Pneumothorax Developed during the Course of COVID-19 Pneumonia. Korean Journal of Radiology. 21 (5): 541-544. doi:10.3348/kjr.2020.0180.

Sriwijitalai W, Wiwanitkit V. (2020). Hearing loss and COVID-19: a note. Am J Otolaryngol, 41:102473.

INNOVATION UPDATE WITH ASSOCIATE PROFESSOR MRIDULA SHARMA

Director of Masters of Clinical Audiology, Macquarie University



Remote placement for clinical audiology students

The COVID19 pandemic has changed how we teach and learn. The biggest casualty has been clinical placements for the Audiology students. It is not surprising; the audiology booths are small, and the clients are often "older" population- population with the highest mortality rate in this pandemic. Therefore, it was not unexpected that the inclusion of the optional person aka student Audiologist was deemed unnecessary. To counter this, eClinEdu module was developed by Australian Audiology courses. The module is to enable Clinical Audiologists to have a student into the clinical appointment "virtually".

The students can be at home and "attend" the placement as well as actively engage in the clinical activity including testing, report writing, discussions. While the virtual clinical experience is not a replacement for the actual clinical education, it is an innovative way to allow the students to partake in the clinical appointment without any health risk to the client. The skills they cannot practice would be headset placements or checking hearing devices but these are skills that the students can learn with "standardised clients" or actors. However, the virtual placements are useful in developing their technical and client-interaction skills. They can take case history, conduct the test, integrate all results, and provide the diagnosis as well as plan management.

This module was developed by the Audiology programs at Macquarie University and The University of Melbourne. The module is available at the HEARnet Learning online store at https://bit.ly/hearnetstore in the Clinical Education section.

For more information,

Contact: HEARnet Learning - webmaster@hearnetlearning.org.au

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