

Hear It!

Quadrimester
Newsletter from the
Audiology Committee

VISION:

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



(d)l(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.

MESSAGE FROM BRIAN B SHULMAN, PRESIDENT OF IALP



Dear Colleagues,
As the new President of the International Association of Communication Sciences and Disorders (IALP), I look forward to collaborating with the Audiology Committee as we work together to advance the mission and vision of our global organization. In doing so, the lives of those communicatively challenged will be enhanced. I would also like to take this opportunity to congratulate the members of the Audiology Committee on their recently successful IALP Audiology Compositum held at the end of August.

My personal best wishes are extended to each of you.

Cordially,

A handwritten signature in black ink that reads "Brian B. Shulman".

Brian B. Shulman, PhD, CCC-SLP, ASHA Fellow, FASAHP, FNAP

EVENTS

1. World Hearing Day, 3rd March 2023

The year's theme will be: "Ear and hearing care for all! Let's make it a reality."

Key messages include:

1. Ear and hearing problems are among the most common problems encountered in the community.
2. Over 60% of these can be identified and addressed at the primary level of care.
3. Integration of ear and hearing care into primary care services is possible through training and capacity building at this level.
4. Such integration will benefit people and help countries move towards the goal of universal health coverage.

The World Hearing Day in 2023 will mark the launch of the Primary Ear and Hearing Care training manual for health workers and doctors. The manual will be accompanied with trainer's handbook and other community resources.

More information on the campaign is available on:
<https://www.who.int/campaigns/world-hearing-day/2023>.

For those who wish to adapt these visuals to suit their own campaigns, editable formats are available upon request by writing to whf@who.int.

2. 32nd World Congress of the IALP, 20-24th August 2023, Auckland, New Zealand



Join us in 2023 for the 32nd World Congress of the IALP | 20 - 24 August | Auckland, New Zealand
Congress Theme: Together Towards Tomorrow

Consider exploring Lake Taupo and the volcanic region with roaring rapids and beautiful glass sculptures. Learn more about the IALP Audiology Committee and how they engage with the IALP audience globally.

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<https://youtu.be/aQXQEnM4V-4>

As planning for IALP progresses, we want to share some key provisional dates for your diary!

Some dates to note in your planning: <http://ialpauckland2023.org/call-for-abstracts/>
Abstract Submission Key Dates:

Abstracts open: 18 August 2022

Call for Abstracts Close: 16 December 2022

Notification of Accepted Authors: 20 March 2023

Explore and Discover Lake Taupo Region!



EAR AND HEARING CARE IN WAR ZONE

Hearing Centre on Wheels in Kiev

Within Kiev, Ukraine where war is part of peoples' daily lives, many people have lost their hearing because of bombs exploding and guns firing. An Audiologist, Taras Kurilets, and an otorhinolaryngologist are driving a van around Kiev testing people's hearing and ear health. They diagnose hearing loss, give treatment recommendations, and supply necessary medication. This project was initiated by Aurora Hearing Centre in Kiev and supported by Vidchui Association (C Couté 2022).

Reference

C Couté (2022 July 18). "Hearing Centre on Wheels" tackles hearing loss cases caused by bombing in Ukraine, Audiology World News.

Dr. John Newall Speaks:

Description of a multi-country investigation into the characteristics of hearing loss in low- and middle-income regions

John Newall, BPsych, MClinaud, PhD
Macquarie University, Australia



There is a massive unmet need for hearing rehabilitation in low- and middle-income regions, with estimates of 80% of the world's hearing-impaired population residing in these areas (World Health Organization, 2021). Only a tiny percentage of global hearing aid production is delivered in these regions, leaving a massive unmet need (World Health Organization, 2017). Traditional hearing rehabilitation service delivery models are not capable of meeting these needs due mainly to the high cost of devices, and requirement for highly skilled hearing healthcare professionals to fit them. A low cost, highly scalable service delivery model is needed.

ATscale is a global, cross-sector partnership aiming to increase access to affordable, appropriate assistive technologies, with an ambitious goal of reaching 500 million people by 2030. ATscale recently commissioned a product narrative for hearing aids, with a focus on strategic approaches to easing access in low- and middle-income countries (LMICs) (Clinton Health Access Initiative, 2019). One key finding of that publication was that low-cost pre-programmable hearing aids may be a scalable, affordable method of meeting the hearing healthcare needs of those in LMICs.

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Pre-programmable hearing aids have a limited number of amplification profiles, with a particular profile being selected either automatically or manually based on the audiometric information of the patient. These devices are generally designed to be fitted quickly, with minimal training, and at a low cost. Our team was lucky enough to receive a grant aimed at further investigating pre-programmable hearing aids as a suitable service delivery strategy.

The first component of our study was to collect and analyse audiometric data from clinical samples in a range of LMICs. By comparing this data to the characteristics of currently available pre-programmable hearing aids we were then able to assess whether existing products met the requirements of LMIC populations. We were also then able to use the data to make recommendations about suitable standards for LMIC targeted pre-programmable devices.

The second component of the study involved a laboratory investigation of existing pre-programmable devices with comparison to conventional devices, and a clinical trial of pre-programmable hearing devices with follow up qualitative study investigating the barriers and facilitators of this service delivery model. This data was then used to examine the strengths and weaknesses of a pre-programmable hearing aid delivery model.

I will confine my discussion to some of the key findings of the first component of our study, interested readers are directed to view our full report for further detail on the second part of the study (Newall & Global Hearing Co-operative, 2021). Our 60-member team, known as the Global Hearing Health Cooperative, represented 23 clinics across 16 LMICs. The breadth of the team, which had members from each World Bank region, allowed us greater confidence in asserting that the data collected was globally representative. The size of the team raised challenges in terms of co-ordination, stretched our budget very thin, and necessitated dealing with regional differences in ethical and system barriers, which in turn created issues in terms of our study timeframe. The success of the project relied on a great deal of goodwill from the Global Hearing Cooperative partners, and I am eternally grateful to them for their support throughout the project.

We collected retrospective data on a minimum of 200 consecutive clinical cases attending each of the 23 clinics involved in the study. Eligible participants were: ≥ 18 years of age, presenting with a primary concern of hearing difficulties, had a worse ear four-frequency pure-tone average (500, 1, 2 and 4kHz) >20 dB HL, and did not present as part of a screening program. Audiometric and basic demographic data was collected on the entire sample. Vector quantization, a machine learning approach, was applied to derive audiological profiles (groups of common patterns of hearing loss) for each dataset, and for the data as a whole.

The findings of this analysis show that, when compared to high income regions, clinical populations in LMICs have a greater average hearing loss, and a greater proportion of the sample have more severe and profound hearing loss. Conductive and mixed hearing loss were also more common in the LMIC clinical populations sampled.

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The audiometric pattern (the shape of audiogram) in the LMIC samples differed substantially from patterns seen in high income regions. Flatter patterns were far more common, with a lack of the steeply sloping patterns seen in high income populations (Bisgaard et al., 2010; Chang et al., 2019).

It appears that the hearing characteristics of clinical populations in LMICs are quite distinct from those seen in high income regions. This indicates that technological solutions and service delivery models developed with high income populations in mind may not be suitable for populations in LMICs. Specifically, the findings of this study suggest that hearing healthcare service delivery programs targeted at the LMIC market should:

- Include devices with adequate power to cater to the needs of those with more significant hearing loss.
- Include devices with amplification profiles more suitable for flatter hearing loss.
- Consider the implications of high proportions of conductive and mixed hearing loss both in terms of device reliability, amplification profiles, and the need for triage to a medical management pathway.

Pre-programmable hearing aids could comprise an integral part of a scalable hearing rehabilitation program and offer a pathway to meet the huge unmet need in LMICs. However, a successful outcome is likely only if the program and device design are tailored specifically to the needs and characteristics of clinical populations in LMICs.

References

Bisgaard, N., Vlaming, M. S., & Dahlquist, M. (2010). Standard audiograms for the IEC 60118-15 measurement procedure. *Trends in amplification*, 14(2), 113-120.

Chang, Y.-S., Yoon, S. H., Kim, J. R., Baek, S.-Y., Cho, Y. S., Hong, S. H., Kim, S., & Moon, I. J. (2019). Standard audiograms for Koreans derived through hierarchical clustering using data from the Korean national health and nutrition examination survey 2009–2012. *Scientific reports*, 9(1), 1-7.

Clinton Health Access Initiative. (2019). *Product Narrative: Hearing Aids - A Market Landscape and Strategic Approach to Increasing Access to Hearing Aids and Related Services in Low and Middle Income Countries*.

Newall, J., & Global Hearing Co-operative. (2021). *Scalable hearing rehabilitation for low- and middle-income countries (SHRLMIC)*. https://atscalepartnership.org/s/Final-Report_SHLMIC_14.pdf

World Health Organization. (2017). *Global costs of unaddressed hearing loss and cost-effectiveness of interventions: a WHO report, 2017*. World Health Organization.

World Health Organization. (2021). *World Report on Hearing*. W. H. Organization.

Professor Christine Yoshinaga Speaks: Cultural and linguistic differences that may affect audiological services

Christine Yoshinaga-Itano, PhD

Research Professor in Cognitive Science and Professor Emerita in Audiology

Boulder, Colorado, USA



Effective audiological services in the global context of individuals/families in diverse societies depend upon the cultural responsiveness of the audiological provider. Cross-culturally, there may be considerable differences that could affect the ability to establish trust relationships with individuals/families. How people are greeted, the use of gestures, eye gaze, touch and physical distance in communication interactions differ throughout the world. Child-rearing practices and support networks, as well as decision-makers and hierarchy of importance or respect may be culturally dependent. Religious and cultural beliefs related to disability may differ significantly in different

parts of the world. Audiologists who deliver services to a diverse population should be aware of how these differences could affect their interactions with families and individuals in their clinical practice.

Greetings, gestures, eye gaze, touching and communication interactions:

When greeting family members, shaking hands between genders may not be acceptable. Communication may be negatively affected if female professionals are delivering information to male family members or individuals or when male professionals are delivering information to female family members or individuals. Providers need to be aware that gestures do not have common meaning throughout the world. They should refrain from using gestures whenever possible. Even simple gestures, such as pointing or head nodding, in certain contexts could be interpreted negatively or could be insulting or even signs of contempt. Waving hands to get attention may also not be cultural acceptable. Different cultures throughout the world have different norms for “eye gaze”. In some cultures, direct eye gaze between people of different genders is not allowed or direct eye gaze from an adult to an infant is not acceptable.

In some cultures, there are also norms about touching. Providers should always indicate to families what they need to do to conduct their diagnostic evaluations and make sure that they have the permission to do so. Touching of the head, which is considered “sacred” in many cultures may not be acceptable. Audiological practice requires touching of the head when placing electrodes, placing headphones on the child/adult’s head, inserting earphones, making ear molds. Audiologists should use cultural brokers to assure that these practices are allowable, whether modifications can be made such as family members assisting the audiologist or permission from the individual/family is required. If a cultural broker is not available, audiologist should ask the family/individual. If the family will not allow the professional to touch the

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head of the child, could a family member be instructed in the placement of the electrodes under the supervision of the audiologist?

People in some cultures may be very effusive while in other cultures people may be very reserved. Some cultures greet individuals with hugs and kisses on the cheek. Some cultures have different norms for distances between individuals. When personal space is invaded, when individuals have proximity to the provider that is too close, the provider may react with discomfort. Exuberance or effusiveness exhibited by the audiologist may not be acceptable in some cultures.

Families have different ways of acknowledging communication and in some cultures, nodding simply indicates that they have received/heard the communication but does not necessarily mean that the family agrees to anything. Providers may misinterpret the communication when they do not understand the norms of the culture of the family.

There may be cultural norms for greeting that require greeting/acknowledging by age or gender. Younger individuals in some cultures may not shake hands with an elder or significantly older person. In many cultures, individuals should be greeted by a title, such as Miss, Mrs, Mr, and the culture may or may not include the use of first names.

Child rearing customs and support networks for families:

After confirmation of hearing loss, particularly from Universal Newborn Hearing Screening/Early Hearing Detection & Intervention (UNHS/EHDI) systems, some families from other countries may wish to go home to their native countries to be with extended family and community. One way to respond would be to ask the family if they could complete the fitting of amplification prior to leaving and if they would consider tele-therapy while they are away. Families may return home and delay returning for 6 months to a year and waiting until they return to deliver services significantly decreases the advantages of earlier confirmation that the child is deaf or hard of hearing.

Some families have customs that newborn infants must not leave the confines of their homes for months after the birth and should only have contact with family members. Confirmation of a hearing loss may be significantly delayed in these circumstances. If portable diagnostic equipment is available, the family might be asked if for the purposes of confirmation of hearing loss and fitting of amplification if a home visit could be made and an exception could be made because of the urgency of providing the infant immediate access to communication. It would be preferable for the audiologist to be from the same culture, but this is not always possible. A cultural broker, someone from the culture of the family, could provide a valuable support to communication with the family

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Decision-making and informed choice:

The primary decision-maker for such things as technology may not be present at the appointment. In these cases, the information may not be provided directly to the individual/s who have the decision-making power for habilitation/rehabilitation unless the provider offers to visit or communicate via the internet/video call to provide the information directly and answer questions that may arise. A second appointment could also be made in order to provide the family with the access needed. Families may rely on the input from community/tribal leaders or religious leaders when making decisions. Western definitions of family as the “nuclear” family: father, mother, child/ren, may not apply to other cultures.

Families may disagree but come from cultures where disagreement is not acceptable in formal communication interactions. Families/individuals may not express their doubts, fears, or disagreements to the provider. Cultural brokers may provide a bridge to communication in these instances.

In many cultures throughout the world, families/individuals have medical professionals who do not ask families to make decisions. Informed decision-making may be a novel concept for them. Families/individuals may interpret the provision of “choices” as the medical professional not having competence to know what should be done. In Western cultures where informed decision-making is considered ethical practice and is also legally required, families/individuals may need this explained to them.

Privilege and power:

For some families, even when amplification technology is offered at no cost to the family/individual, the family/individual’s knowledge of the cost of the technology may prevent them from wearing the technology or using the technology for their children. The amplification technology may be the most expensive thing that they have ever owned, and they may fear that it will be damaged or lost or that they will be considered “bad” or “irresponsible” parents if technology is lost or broken. In the United States, families should be offered insurance for technology replacement and assured that amplification could be lost or damaged but that even when that is a risk, their infant/child needs access to communication as early and as often as possible.

Power and privilege may play roles in communication between audiology professionals and families/individuals. Families/individuals may not feel comfortable in expressing their discomfort, their doubts, and fears with the audiologists. In parent-infant situations, family-to-family support may provide the individual/family with an opportunity to express their feelings more freely.

Fate, punishment, curse, spiritual:

In many cultures throughout the world, disability is considered to be the result of punishment for an individual/family’s wrongdoing or a curse on the child/individual/family. Families may believe that the hearing difference is a result of “fate” and therefore, nothing can or should be done to change the circumstance.

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In some cultures, children with disabilities are considered as “gifts” and therefore, they should be protected and sheltered. Spirits or God/s may be believed to have “willed” or “caused” the disability or that there are spiritual reasons for the disability. As a result, families/individuals may believe that the children should be protected, need not be educated, should be hidden, or the family/individual may be unwilling to acknowledge that the disability exists.

These families and communities should be provided with opportunities to interact with Deaf/Hard of Hearing Leaders who are teachers, speech/language therapists, researchers, audiologists, physicians, counsellors, directors of programs, as well as in professions that are not health or education related, when making decisions. Western definitions of family as the “nuclear” family: father, mother, child/ren, may not apply to other cultures.

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in professions that are not health or education related, such as engineers, actors, singers, dancers, or artists. Having real-life exposure to individuals who are deaf or hard of hearing with successful lives can alter an individual/family/community's concept about "disability" so that they do not think of individuals with hearing differences as being "punished" or "cursed" but rather as individuals who simply have individual differences.

Grief and mourning:

Grief especially in the confirmation of deafness/hearing loss in an infant/child may overcome the family/individual. Having the opportunity to meet a diverse range of people who are deaf or hard of hearing can often significantly decrease the length of the grieving. Most families have never had contact/communication with someone who is deaf or hard of hearing. As children who are deaf or hard of hearing are identified earlier and have immediate access to early intervention, their outcomes have provided them access to professions that were previously denied to them. There are an increasing number of audiologists who are themselves deaf or hard of hearing, as well as physicians and other allied health professionals. More and more teachers, researchers, early childhood specialists, psychologists and social workers are individuals who are deaf or hard of hearing.

Dolls, amulets, animals:

Certain animals or dolls may be considered evil or bad luck in some cultures. Amulets should not be touched or removed. Audiological providers should always ask permission before removing infants from cradle boards or removing clothing or objects from infants/children when conducting audiological evaluations.

Hierarchies or customs related to sitting:

In some cultures, the order or placement of seating may be according to age or gender. Crossed legs when seated may also be unacceptable and if the soles of the shoes are visible may be considered a sign of contempt. Audiologists should learn about the cultures of the families/individuals to whom they provide audiological services. Cultural brokers who are individuals from the culture of the individual/family can provide information and support in establishing trust relationships and successful communication. Respect for all cultures and beliefs no matter how different they are from those of the audiologist providing services is vital for successful communication. Families/individuals can detect judgment in the audiologist's manner, voice, facial/body expression and those judgments will negatively impact relationships. Knowledge about other cultures can support understanding and acceptance. Additional information about different cultures can be found at www.mdcresearch.net. At the top of the home website page, providers can access information by clicking Multicultural Resources. The information for families and providers is especially pertinent for those providing services related to UNHS/EHDI, but general information for providers is also provided on many different cultures throughout the world. Families/individuals do not expect audiology professionals to be knowledgeable about their culture, but audiologists should provide services with "cultural humility" and respect for cultures that are not the same as their own.

Committee

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