British Society of Audiology
Promoting excellence in hearing and balance

Highlights of BSA Grow 2017 - Lunch & Learn Webinars

June

An Internet-Based Cognitive Behavioural Intervention for Tinnitus

Eldré Beukes, Clinical Scientist (Audiology), Anglia Ruskin University

(19 mins)

Abstract

Audiological professionals strive to provide excellence in tinnitus management. This drive is often hampered by budget constraints and immense pressure to treat more patients with reduced resources. Furthermore, evidence-based tinnitus interventions such as cognitive behavioural therapy are not readily available. Concerns have also been raised that many experiencing troublesome tinnitus remain without access to tinnitus treatment due to geographical or service constraints. A multidisciplinary team was formed to seek creative ways of improving access to evidence-based tinnitus interventions. The innovative approach taken was developing an Internet intervention specifically for a UK population

to complement existing tinnitus treatment pathways. The intention would be that some suitable patients could be triage to receive treatment via the Internet, therefore providing access to an evidence based intervention and freeing up clinicians to see patients that most require specialist care. This talk describes the development of this intervention together with the results of clinical trials undertaken to evaluate its suitability, feasibility and efficacy in reducing tinnitus distress and the effects of other associated problems related to having tinnitus.

Biography

Eldré Beukes, is a Clinical Scientist in Audiology, who has gained widespread experience working in various clinical settings. She also teaches students at Anglia Ruskin University in Cambridge, where she is currently completing her PhD. As part of this research, she launched an Internet-based intervention for tinnitus and was awarded a British Society of Audiology applied research grant to assist with this research.

July

The International Journal of Audiology: An Overview and Article Preparation

Ross J. Roeser, PhD, Editor in Chief IJA, University of Texas at Dallas

(32 mins)

Abstract

An outline of the International Journal of Audiology including its formation, governance and processes from an article submission to publishing, with a call for both further papers and peer reviewers.

Biography

Dr. Roeser holds the Lois and Howard Wolf Professorship in Pediatric Hearing in the School of Behavioral and Brain Sciences at the University of Texas at Dallas, Dallas, Texas. He is also the Director Emeritus of The University of Texas at Dallas/Callier Center for Communication Disorders in Dallas, and is a Clinical Professor in the Department of Otorhinolaryngology/Head and Neck Surgery at UT Southwestern Medical Center. He is the founding Editor-in-Chief of Ear and Hearing and is currently the Editor-in-Chief of the International Journal of Audiology and has contributed to multiple publications to the audiological literature.

August

Babies Benefit from High-Quality Hearing Aid Fittings

Marlene Bagatto, Au.D., Ph.D. - National Centre for Audiology,

Western University, Ontario, Canada

(19 mins)

Abstract

Paediatric audiologists who provide hearing aids to infants and children with hearing loss rely on evidence-based guidance to support their work. Recent research has shown that applying relevant science and technology within clinical fitting hearing aid fitting protocols results in good outcomes for children. In this presentation, the key protocol elements of providing hearing aids to infants and children will be described through the use of a case study.

Biography

Marlene Bagatto is a Research Associate and Adjunct Research Professor at the National Centre for Audiology at Western University in London, Ontario, Canada and is the current president of the Canadian Academy of Audiology. Her research interests relate to optimizing hearing aid fittings for the paediatric population and clinical methods for evaluating the impact of the intervention. Dr. Bagatto serves as a Consultant for the Ontario Ministry of Children and Youth Services' Infant Hearing Program where protocol development, implementation and monitoring are her main activities. Dr. Bagatto also provides clinical services to infants involved in the Ontario Infant Hearing Program at the H.A. Leeper Speech and Hearing Clinic at Western.

September

Veterans with post-traumatic stress disorder: Signs, symptoms and treatment

Dr Manveer Kaur, Senior Clinical Psychologist, Combat Stress

(30 mins)

Abstract

Combat Stress is the UK's leading Veterans' mental health charity, with specialist expertise in the treatment of complex post-traumatic stress disorder (PTSD). A small, but significant, percentage of veterans will develop this condition as a result of overwhelming experiences they faced during military service. This talk will focus on how to spot the key signs of PTSD in a veteran, some of the barriers that veterans face seeking help, and how to overcome these through successful treatment. At the end we will also show you how to can refer a veteran to our service.

Biography

Dr Manveer Kaur is a Senior Clinical Psychologist, who qualified from the University of Surrey in 2012. Following a 1 year post in the NHS, she moved to Combat Stress to specialise in the treatment of veterans with complex mental health problems. She has worked at Combat Stress for the last four years and has published an article on an innovative approach to adapting trauma therapy for veterans. Her areas of special interest are post-traumatic stress disorder, sexual trauma, working with diversity and therapy through interpreters.

October

Validation and development of the STRIPES test as a measure of spectro-temporal processing in cochlear-implant listeners

Dr Alan Archer-Boyd, Investigator Scientist at Medical Research Council

(21 mins)

Abstract

A number of methods, e.g. novel speech-processing algorithms, for improving performance by cochlear implant (CI) users have been proposed. However, it has not always proved possible to demonstrate the benefits of these approaches. This may be due to the absence of a genuine benefit, or test limitations. Most psychophysical tests require spectral or temporal processing, but not both.

The STRIPES (Spectro-Temporal Ripple for Investigating Processor Effectiveness) test requires, like speech, both spectral and temporal processing to perform well. The test requires listeners to discriminate between stimuli comprising of temporally overlapping exponential sine sweeps (the “stripes”) that go up or down in frequency over time. The task difficulty is increased by increasing the sweep density (number of sweeps present at the same time).

Results from several studies will be presented, showing the validation of the test using Advanced Bionics users fitted with novel CI maps, and comparisons with the results obtained from other psychophysical and speech tests while altering the groups of electrodes used (apical vs more basal), and the type of stimulation (monopolar, tripolar and dynamic tripolar) employed.

The STRIPES test appears to be predictive of differences in speech performance across listeners and of large processing changes within listeners. It correlates across listeners with performance on another spectro-temporal task, but neither was sensitive to performance changes caused by smaller alterations in CI processing

Biography

Dr. Alan Archer-Boyd is a post-doc at the MRC Cognition and Brain Sciences Unit (CBU), University of Cambridge. Since joining the CBU in 2015 he has developed the STRIPES test for assessing cochlear-implant (CI) listeners’ spectro-temporal processing performance. He is currently investigating the effect of head movement and dynamic-range compression on CI listeners’ perception of sound level.

Previously he was a post-doc on the “ICANHEAR” project at the Institute for Communication Acoustics, Ruhr Universitaet Bochum (Bochum, Germany), and a Ph.D. student at the MRC/CSO Institute of Hearing Research - Scottish Section (Glasgow, UK). His main research interests are audio signal processing, head movement, and the effects of their interaction on the perception of sound by hearing-impaired listeners.

November

What has the National Acoustics Laboratories done for Audiology?

Harvey Dillon, Research Consultant, National Acoustic Laboratories, Australia; Visiting Professor of Auditory Science

(50 mins)

Biography

Dr Dillon recently retired as Director of the National Acoustic Laboratories in Sydney. He is best known for research into hearing aids and in recent years has been active in researching auditory processing disorders and electrophysiological assessment techniques for infants. Amongst his over 250 publications are a comprehensive text on hearing aids that is used widely throughout the world.

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December

Eustachian tube dysfunction: Can we measure it?

Mr Matthew Smith, Specialist Registrar in ENT and Clinical Research Associate

(38 mins)

Abstract

Eustachian tube (ET) dysfunction is a common condition in adults and children without a widely accepted diagnostic test or outcome measure. It is a difficult condition to measure or diagnose as the symptoms arising from an obstructed or patulous (permanently open) ET overlap with a number of other conditions. Despite increasingly widespread use, current-patient reported outcome measures are therefore not disease-specific.

Measuring ET function objectively is equally difficult, as although there are a number of tests designed to detect ET opening (tubomanometry, continuous impedance, TTAG and sonotubometry to name a few) there is no gold standard available to validate them, and inter-test correlations can be poor. It has been suggested there may be sub-types of ETD due to passive tube obstruction (e.g. mucosal thickening) and dynamic dysfunction (inadequate muscle action), and objective tests may provide a means to distinguish these and direct appropriate therapy.

The picture is complicated further by the fact that symptoms, and our current clinical diagnoses do not always correlate with the objective test findings.

This seminar will review the current options and issues surrounding the measurement of ET function and the diagnosis of patulous and obstructive ETD, and present new research on the accuracy and utility of both patient-reported measures and objective tests.

Biography

Matthew Smith graduated from the University of Cambridge in 2008 and is currently undertaking a PhD during ENT Specialist Training. His clinical research has focussed on understanding and developing ways of measuring how the Eustachian tube is functioning, both with patient-reported outcome measures and objective tests. He has developed collaborations with engineers to investigate the biomechanical changes during balloon Eustachian tuboplasty, and has been involved with other medical device development projects. He is a founding member and secretary of the National ENT Trainee Research Network (INTEGRATE).