Intervention: There are examples of collaboration between ENT and psychotherapy, like the University Hospital of Geneva. Patients who do not accept their auditory dysfunction, or are very focused on tinnitus, are sent to a joint appointment with an ENT doctor and a psychologist. This consultation addresses the social and psychological aspects, trying to make the patient understand the relation between tinnitus and some aspects in their daily life which have been disturbed. CBT is a therapeutic strategy used with these patients, and has had positive results. It is therefore important to develop intervention strategies that enhance self-efficacy, optimism, and coping strategies as well as reducing anxiety/depression and promoting their QOL.

Conclusions: Motivated by clinical practice and the literature, this work has systematized an approach for implementing a QOL promotion program. It takes a psychological approach and complements standard therapy. Apart from psychotherapy such as CBT, specific strategies can lessen anxiety and depression. The aim is to increase optimism, self-efficacy, and coping strategies, allowing patients to cope more effectively with tinnitus. As the subjective discomfort gradually decreases, a stage may be reached where tinnitus no longer has an aversive connotation.

Early Identification and Intervention in Audiology

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Newborn Hearing Screening

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Normal hearing is critical to the development of speech and language. Deafness can be of congenital origin (genetic or extrinsic cause, acquired during pregnancy) or acquired (perinatally or postnatally). Childhood deafness is the most common congenital disability for which there is screening and early intervention. It is estimated that its incidence is 1 to 2 per 1000 newborns, rising to 2 to 4 per 100 newborns from Neonatal Intensive Care Units (NICUs) or with risk indicators. Deafness is a disability with repercussions on the acquisition of speech, language, and intellectual development of the child, making social integration more difficult. The first 3 years of life are crucial for language acquisition and speech.

In 1972 the Joint Committee on Infant Hearing drew up a list of risk indicators for deafness, recommending auditory screening to children that had these indicators. The key risk indicators are: prematurity, low birth weight, hiperbilirubinemia, family history of deafness, congenital infections, ototoxic medication, mechanical ventilation for more than 5 days, low apgar score, craniofacial anomalies, bacterial meningitis, associated syndromes, and NICU for over 48 hours. In 1994 the Joint Committee on Infant Hearing recommended universal neonatal hearing screening (UNHS) using easy and fast screening tests. The aim is to diagnose deafness before 3 months of age and to rehabilitate before 6 months. However, 50% of cases of infantile deafness are not associated with any known risk indicator.

There are several screening protocols adapted to each country, but otoacoustic emissions and automatic auditory evoked potentials are the most common screening methods. Currently, the average age of detection of hearing loss is about 2 years old, well beyond the age considered ideal for placing a technical aid, either hearing aid or cochlear implant. In 2005, the Screening and Intervention on Children Deafness Group (GRISI) was created. It is an interdisciplinary group consisting of various health professionals (ENT, audiologists, nurses, SPL therapists, and paediatricians). This group's main objective is the implementation of a national program of detection and early intervention, through joint actions with professional associations and several official entities.

Childhood Hearing Screening

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Matosinhos Hearing Screening Requirements for School-Aged Children Between October 2012 and May 2014

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Introduction: This research is focused on deafness and impaired hearing in children who attend special education, and its main objective is to understand whether the presence of an audiologist is an advantage and if it works as a complement to the linguistic, social, and cognitive development of children attending the 1st year of primary school.

Objectives: The research question was: *Is there any need to integrate an educational audiologist in primary schools?*

Methods: Exactly 22 schools in a northern region of Portugal were selected and a hearing screening was given to students attending regular classes, which included a brief anamnesis, otoscopy, and an audiogram. The aim was to determine whether there were otologic or hypoacoustic changes that could be detected by the educational audiologists in a school, justifying their presence and above all enabling early intervention and ongoing monitoring of the child.

Results: The results revealed the existence of these changes, confirming our work issues (37% with otologic disorders, 6.6% with right ear hearing loss, and 6.7% with left ear hearing loss). We conclude that if there are any students that have already been diagnosed by the family doctor, there are advantages in the inclusion of an audiologist in the multidisciplinary team that operates in schools.

Conclusions: Despite the benefits shown in the inclusion of these health professionals in these teams, audiology is still a little known profession in contexts apart from the hospital and clinic.

School-Age Hearing Screening

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School-age hearing screening in Portugal, as in many countries in Europe, is not mandatory. Despite the European Consensus Statement on Hearing Screening of Pre-school and School-age Children, signed in 2011, it has still not been possible to include hearing screening in the national health program. The aim of this summary is not to detail the empirical results of the screenings but to underline the benefits of having an audiologist working closely in a school setting and performing hearing screening, especially when it is not mandatory.

The case presented here is from an institution with 5 schools in the Lisbon area where, in each school year, approximately 250 children are screened. Children are from ages 5 to 7 and from lower/lower-middle class. The hearing screening program started 5 years ago and is performed by an educational audiologist. The screening protocol used was that proposed by the American Speech-Language and Hearing Association: otoscopy, tympanogram, pass/fail audiogram at 20 dB HL for 1, 2, and 4 kHz; if abnormal otoscopy and/ or tympanogram type C2 or B and/or the audiogram shows a fail, refer for assessment. As stated in the ASHA Guidelines for Audiological Screening: "Appropriate management and follow-up of children who do not pass the hearing screening is of utmost importance to the efficacy of the screening program. If a child is referred based on the results of his or her rescreening, a process for notifying the parent/guardian should be implemented that provides information, in lay language, regarding the meaning of the referral and recommended follow-up procedures." Particularly in a population from the lower/ lower-middle classes, notifying families has proven to be insufficient to guarantee rescreening or assessment.

Even though, prior to screening, parents/legal guardians give consent and therefore have been given an explanation of the purpose and importance of screening, our experience has shown that the proximity of the educational audiologist to families allows for a greater number of children who have failed hearing screening to undergo full assessment. Families tend to need a more extensive and more comprehensive understanding of the consequences of (transitory) hearing impairment and its possible relation to the difficulties that their child is experiencing. This also enables families to be more motivated to follow through with treatment when needed. Another advantage of hearing screening in schools is the possibility of educating school personnel. As with families, close contact to teachers allows for an increase in the number of referrals of students with auditory disorders, permanent and/or transitory, leading to appropriate management and a reduction in student underachievement. In sum, school-age hearing screening by an educational audiologist promotes earlier detection of audiological disorders; assessment and treatment of disorders; increase in hearing healthcare literacy for all school personnel; a closer engagement with parents allows them to be more aware and sensitive to hearing healthcare issues; and greater educational success for students.

Vestibulogy and Vestibular Rehabilitation

Moderator: Isabel Borges

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Importance of Computerized Dynamic Posturography in Vestibular Rehabilitation

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Balance is a human being's capacity to remain erect and make sharp movements and rotations without wobbling or falling. The central nervous system has three sensorial systems (vestibular, visual, and somatosensory) responsible for capturing positional information, and it is necessary for the systems to work in harmony in order to achieve equilibrium. Computerized Dynamic Posturography (CDP) is a computer system connected to a platform with different sensors. The sensors capture movement and monitor changes of weight at various spots in the feet in response to oscillations of the body under different sensory conditions. This summary demonstrates the utility and efficiency of CDP in diagnosing equilibrium disorders, and in rehabilitation through registering, analyzing, and quantifying different sensorial conditions. This allows one to observe the physical response to a received stimulus, in order to provide appropriate individual treatment to each patient.

Vestibular rehabilitation (VR) has the following goals: facilitate the process of central compensation; improve the limits of postural stability and enhance motor control; and develop and improve strategies of equilibrium. It can help prevent falls in the elderly, diminishes anxiety and boosts self-confidence, and improves quality of life.

A CDP exam requires an optokinetic stimulator, a projector, and a screen to project the images. The patient should be standing up, barefoot, on top of the platform, and should remain still during six different sensorial conditions: open eyes, fixed platform; closed eyes, fixed platform; optokinetic exposure, open eyes, fixed platform; open eyes, unstable platform; closed eyes, unstable platform; optokinetic exposure, open eyes, unstable platform. Oscillations in response to the stimuli are captured by the platform and analyzed. By determining the affected component, a suitable set of training exercises can be selected, usually for situations most difficult for the patient. To evaluate the patient's perception about their own sense of balance, we use the Dizziness Handicap Inventory (DHI), a self-assessment that consists of 25 items which quantify the impact of symptoms and evaluates physical, functional,