



FIRST WORLD STUDENT MEETING ON SLT

6th to 11th July 2015

Join us... beyond the unlimited power of communication

An amazing era in Speech Language Therapy (SLT) is pending: one that impels us to innovate and build new paradigms as we move forward into the XXIst century. We are facing increasing costs and demands for health-care services as the population ages grow, changes in European and worldwide societies, rapid developments in technologies, and major advances in neuroscience. A new understanding of health will demand new models of service delivery to be considered in line with evidence-based treatment protocols, the concept of a continuum of care for chronic disorders, and the need to empower clients, and understand them in the center of the health care process.

Having in mind all these challenges, all of you are welcomed to the 1st World Student Meeting on SLT. On the feet of our XII century Leiria's castle, from where we can appreciate all the fields between the sea (Atlantic ocean) and the mountains (Aire e Candeiros mountains), the main idea is to discuss and reflect about the wonderful world of Speech Language Therapy and how actual students, our tomorrow professionals, can enhance the development of this profession so important to promote health and wellbeing.

For an all week, between July 6th and July 11th, Leiria will become the world capital of Speech Therapy Students, where all can share knowledge, experiences, feelings, and, most important, a view of the future for Speech Language Therapy. Dozens of experts will be available to this reflection that also aims to build a world network between Speech and Language Therapy Students.

The School of Health Sciences of the Polytechnic of Leiria is proud to be part of this first world experience for Speech and Language Therapy students and wish to thank all the people and organizations involved in turning this dream reality.

Sharing our values, understanding that the development of knowledge is mainly an affective issue, looking for health as a biological, cognitive, affective and behavioral concept, the main aim is to grow together and to fulfil the future in this 500 years old city of Leiria.

Welcome and enjoy...

José Carlos Rodrigues Gomes, PhD
Director of the School of Health Sciences of the Polytechnic of Leiria

Event Program

Monday, 06th July 2015

10h00 to 10h30 - Opening Session

Nuno Mangas, President of the Polytechnic Institute of Leiria (IPL)
 José Carlos Gomes, Director of the Superior School of Health of Leiria (ESSLeiria)
 Lilly Cheng, Vice-President of the IALP - International Association of Logopedics and Phoniatrics
 Michèle Kaufmann-Meyer - President of the CPLOL - Standing Liaison Committee of E.U. Speech and Language Therapists and Logopedists
 Ana Isabel Tavares - President of APTF - Portuguese Association of Speech and Language Therapists
 Inês Tello Rodrigues - representative of the SPTF - Portuguese Society of Speech and Language Therapy
 Etelvina Lima, Degree Coordinator of the SLT course, IPLLeiria
 Joana Caetano, 4th year student of SLT Leiria, Organizing Committee

10h30 to 11h15 - Presentation of the regulatory entities of the profession. Chairman: José Carlos Gomes, Director of the ESSLeiria- IPLLeiria.

APTF. Ana Isabel Tavares
 CPLOL. Michèle Kaufmann-Meyer
 SPTF. Inês Tello Rodrigues

11h15 to 12h00 - Session 1. Chairman: Elsa Soares, IPLLeiria

"Basis for writing a scientific article". Inês Tello Rodrigues

12h00 to 14h00 - Break for Lunch

14h00 to 15h00 - Free communications. Chairman: Joana Caetano, Student of SLT degree, IPLLeiria

"Frenchay Dysarthria Assessment, version 2: Preliminary data of its validation with people with Parkinson's disease". Rita Cardoso, Isabel Guimarães, Helena Santos, Rita Loureiro, Joana Carvalho, Serge Pinto and Joaquim Ferreira
 "Clinician and patient-based outcomes for swallowing assessment in Parkinsonism: Preliminary results of a systematic review". Helena Santos, Rita Loureiro, Rita Cardoso, Isabel Guimarães and Joaquim Ferreira.
 "Communicative abilities profile for person with aphasia and their caregivers". Ana Lúcia Mano, Andreia Amaro, Joana Pinheiro, Elsa Soares and Sónia Pós de Mina

15h00 to 16h00 - Free communications. Chairman: Ana Mira, Student of SLT degree, IPLLeiria

"Auditory discrimination in Portuguese toddlers". Diana Fernandes, Joana Marques and Etelvina Lima.
 "Assessment practices of Speech Language Therapists in Portugal with children in the pre-linguistic period." Ana Graça, Susana Samgy, Monica Rema, Gisele Tassarolo, Etelvina Lima and Andreia Salvador.

Tuesday, 07th July 2015

10h00 to 11h00 - Session 2. Prevention. Chairman: Carolina Branco

"Primary prevention: The use of stories." Fátima Maia, Coordinator of the Degree of Speech Language Therapy - UFPessoa and Vânia Peixoto
 "Validation of the speech and language screening - RALF" Marisa Lousada, Coordinator of the Degree of Speech Language Therapy UAveiro, Ana Mendes and Rita Valente

11h00 to 12h00 - Free communications. Chairman: Ana Graça, Student of SLT degree, IPLLeiria

"Diagnose of laryngeal pathologies using Speech Signal Processing." Hugo Cordeiro, Isabel Guimarães, José Fonseca and Carlos Meneses
 "Pediatric Voice Handicap index: Pilot study in European Portuguese." Sandra Ferreira, Susana Vaz-Freitas and Isabel Carvalho
 "Vocal fold paralysis/paresis - Audioperceptual assessment- Before & after Speech Therapy." Elisabete Cardoso, Susana Vaz-Freitas and Sónia Pais
 "Discourse processing in elderly healthy population." Katarína Sümegiová and Jana Marková

12h00 to 14h00 - Lunch Break

14h00 to 15h00 - Session 3. Assessment. Chairman: Etelvina Lima, Degree Coordinator of the SLT course

"Standardization of European-Portuguese pre-school assessment instruments." AP. Mendes, M. Lousada, R. Valente, E. Afonso and F. Andrade

15h00 to 16h00 - Free communications. Chairman: Joana Pinheiro, Student of SLT degree, IPLLeiria

"An interactive computer environment to motivate children in speech and language therapy." André Grossinho, Mariana Diogo, Joao Magalhaes and Sofia Cavaco
 "Enabling non-intrusive facial-anthropometry in Speech Language Therapy." Ricardo Carrapiço, Margarida Grilo, Isabel Guimarães, Sofia Cavaco and João Magalhães
 "Aeronautical communication - Preliminary study for the construction and validation of the perception of speech and voice questionnaire (AEROVOZ)." Filipa Pereira and Sónia Lima
 "Mathematic challenges resulting from language difficulties." Ana Peixoto

Wednesday, 08th of July 2015

9h30 to 10h30 - Session 4. Intervention. Chairman: Carina Pinto

"New challenges in therapeutic intervention." Etelvina Lima, Degree Coordinator of the SLT course
"Speech technics to help stuttering children using Apps games." Mónica Gaiolas

10h30 to 11h00 - "Speech therapy in Portugal: five decades of history." Isabel Guimarães, ESSA, IMM

11h00 to 12h00 - Free communications. Chairman: Susana Samgy, Student of SLT degree, IPLeiria

"Caregivers' opinion about their children's eating problem." Ana Cláudia Lopes, Isabel Guimarães and Catarina Afonso
"Young females' professional voice characteristics: preliminary data." Isabel Guimarães
"Prospective analysis of the articulation performance of children with and without language disorders." Margarida Grilo and Vera Cordeiro
"Speech and oral motor performance in children." Margarida Grilo and Mafalda Rua

12h00 to 14h00 - Lunch Break

14h00 to 16h00 - Free afternoon

Thursday, 09th July 2015

10h00 to 11h00 - Session 5. Scientific Study. Chairman: Débora Franco

"Swallowing disorders in a geriatric population: Does opinions converge?" Dália Nogueira, Coordinator of the Degree of Speech Language Therapy ESSAlcoitão

11h00 to 11h30 - Session 6. Chairman: Andreia Salvador

"Enterpreneurship in Speech Language Therapy" - Aline Braga

11h00 to 11h30 - Poster presentations. Chairman: Michelle Gonzalez, Student of SLT degree, IPLeiria

"Reading proficiency in adults." Ana Capinha, Sara Paulino, Vanessa Dias, Mónica Cabral, Marisa Torre, Sónia Pós de Mina and Maria Dos Anjos Dixe
"Counselling provided to caregivers of babies with cleft lip and/or palate -Prenatal and neonatal care." Helena Pimenta and Marta Pinto
"The presence of vocal alterations and self-perception of the same in Primary teachers from the county of Leiria." Adriana Neves Souto, Daniela Cartaxo, Paula Meireles, Liliana Dias, Elsa Soares and Sónia Pós de Mina
"The influence of shared reading practice between parents and children in MLU." Joana Eleutério, Nicole Vinagre, Adriana Pereira and Etelvina Lima
"The impact of the progenitor's schooling in the shared reading with children from 3Y0M to 3Y6M." Nicole Vinagre, Joana Eleutério, Adriana Pereira and Etelvina Lima
"Effectiveness of a health and vocal training program in children of a choir group." Daniela Crespo, Sara Faria, Rosa Vieira and Etelvina Lima

12h00 to 14h00 - Lunch Break

14h00 to 16h00

Workshop 1 - Neuromuscular bands in the clinical practice of Speech Language Therapists - Physiotherapist Joaquim Coutinho - University Hospitals of Coimbra
Workshop 2 - Sensorial integration in the clinical practice of the Speech and Language Therapist - Helena Reis, Occupational Therapist APPDA-Norte; Lecturer of Superior School of Health - Polytechnic Institute of Leiria
Workshop 3 - Effects of Myofunctional Orofacial Therapy in Snoring, OSA and OSAS - Aline Braga, Speech Language Therapist

Friday, 10th July 2015

10h00 to 11h00 - Session 7. Ethical conduct. Chairman: Diana Costa

"Parental alienation: the role of the SLT." Helena Germano, Coordinator of the Degree of Speech Language Therapy IPSetúbal
"Speech Therapy as a support net. Ethics amongst peers." Maria João Cunha, Coordinator of the Degree of Speech Language Therapy - ESTSP

11h00 to 12h00 - Free communications. Chairman: Joana Santos, Student of SLT degree, IPLeiria

"Items to assess in the realization of prerequisites for Speech and Language Therapy degree candidates." Adriana Santos, Ana Lampreia, Joana Caetano, Elsa Soares and Sónia Pós de Mina
"Speech Language Therapists: The integration in Portuguese Mental Disorders' teams." Ana Mira, Ana Azoia, Diana Silva, Sónia Pós de Mina and Elsa Soares
"pVR-QOL - Translation and adaptation for European Portuguese." Mariana Ribeiro, Susana Vaz-Freitas, Elisabete Cardoso and Isabel Carvalho

12h00 to 14h00 - Lunch Break

14h00 to 16h00

- Workshop 5 - Augmentative and Alternative Communication - Andreia Salvador, APPDA - Leiria
- Workshop 6 - Fluency - Gonçalo Leal, SLT
- Workshop 7 - Techniques of oral presentation
- Workshop 8 - Emotional Intelligence and managing stress - Luís Filipe, Psychologist SAPE - Student Service of IPEiria

16h30 - Closing Session - José Saramago Library

- José Carlos Gomes, Director of the Superior School of Health of Leiria (ESSLei)
- Etelvina Lima, Degree Coordinator of the SLT course, Leiria
- Elsa Soares, Lecturer of Leiria SLT Degree, Organizing Committee
- Joana Caetano, 4th year student of SLT Leiria, Organizing Committee

Saturday, 11th July 2015

10h00 to 12h00

- Workshop 9 - Vocal coaching - Inês Moura, SLT, Business manager and Vocal coach
- Workshop 10 - Reiki - Ana Carla Ribeiro, Reiki therapist/trainer

Guest communications

Tuesday, 07th July 2015

Primary prevention: The use of stories

Vânia Peixoto and Fátima Maia

School of Health Sciences/Faculdade de Ciências da Saúde - Universidade Fernando Pessoa

Education for children's literacy is increasingly present in the concern of parents and professionals. We know that the introduction to literacy is different from initiation to literacy, and that at an early age the contact with books, phonological awareness skills, vocabulary, attention and auditory memory and narrative are essential for optimal development of written language. The SLT is one of the prepared professionals to work all these skills, having a crucial role in inclusive settings, in promoting the development of language skills, as well as the prevention or lessening of written language disorders. Here we present an ongoing program, implemented by the Department of SLT at the Universidade Fernando Pessoa, developed in the light of this paradigm. At the same time, the book can be used as a helper tool in the inclusion of success of children with special educational needs in regular educational settings. In this context, we present a children's book, in preparation, which it aims to enhance the "demystification" of the term Autism among children.

Validation of the speech and language screening - RALF (Rastreo de Linguagem e Fala - RALF)

A.P. Mendes^{1,3}, M. Lousada² and R.Valente³

¹Health Science School of Polytechnic Institute of Setubal, ²School of Health Sciences (ESSUA) and Center for Health Technology and Services Research (CINTESIS. UA), University of Aveiro, ³Institute of Electronics and Informatics Engineering of Aveiro (IEETA), University of Aveiro

Purposes: To develop a screening preschool instrument – *Language and Speech Screening (Rastreo de Linguagem e Fala RALF)*. RALF was developed to quickly identify children who may be experiencing language and speech difficulties and that may need a complete assessment.

Methods: RALF was developed based on speech and language normative developmental data for European Portuguese (EP) and literature review. To validate RALF 168 children aged 3;0-5;11 participated in the study. TL-ALPE, RALF and a spontaneous speech sample were used to collect speech and language data. Content validity, sensibility, specificity, positive predictive power (PPP), negative predictive power (NPP), internal consistency and inter-judge reliability were analysed. **Results:** RALF presented content validity guaranteed, through the assessment by an expert panel and the use of the *thinking aloud method*. RALF items adequately measured the domain purposed. Sensibility, specificity, PPP and NPP values were calculated for each age group. Sensibility values obtained (94%, 96% and 86%, respectively) ensure that the screening was precised (>70%) for the correct identification of a child with a speech and language disorder. Specificity values (95%, 79% and 72%, respectively) guaranteed that RALF was rigorous on the correct identification of a child without a speech and language disorder. PPP values (94%, 79% and 59%, respectively) and NPP (95%, 96% and 92%, respectively) showed that the majority of data obtained with RALF indicates the existence of a speech and language pathology when it really exists. RALF presented a strong cohesion between the items that composed the screening (internal consistency values >.70) and also a strong inter-judge reliability (99.04%). **Conclusion:** RALF is a valid, reliable, sensitive and specific that speech-language pathologists (SLPs) can use with EP-speaking children.

Standardization of European-Portuguese pre-school assessment instruments

AP. Mendes^{1,3}, M. Lousada², R. Valente³, E. Afonso⁴ and F. Andrade⁵

¹School of Health Science of Polytechnic Institute of Setubal; ²School of Health Sciences (ESSUA) and Center for Health Technology and Services Research (CINTESIS. UA), University of Aveiro, ³Institute of Electronics and Informatics Engineering of Aveiro (IEETA), University of Aveiro, ⁴Escola Secundária com 3º Ciclo do Ensino Básico Dr. Jaime Magalhães Lima; ⁵Centro de Terapia da Fala e Apoios Complementares

Purposes: To develop and standardize two instruments: (i) a Phonetic-Phonological Test (*Teste Fonético-Fonológico-Avaliação da Linguagem Pré-Escolar, TFF-ALPE*) for the assessment of European-Portuguese (EP) children's articulation and phonological abilities; (ii) a Pre-school Language Test (*Teste de Linguagem-Avaliação da Linguagem Pré-Escolar, TL-ALPE*) which assesses European-Portuguese (EP) children's receptive and expressive language abilities. **Methods:** In order to standardize TFF-ALPE, 768 children aged 3;0-6;11 participated in this study. To standardize the TL-ALPE, data was collected on 817 EP-speaking children aged 3;0-5;12. The standardization, validity and reliability of TFF- and TL-ALPE were analysed. **Results:** TFF-ALPE and TL-ALPE presented strong cohesion (internal consistency >80%) and had strong inter- and intra-judge reliability. There was also a strong correlation between the TFF-ALPE and TL-ALPE data and those obtained in other studies. The content validity was demonstrated by the description of the tests' domain and the items that comprise TFF-ALPE and TL-ALPE. The construct validity of both instruments was confirmed by the proportional increase of mean score values with age for each ability. The results of concurrent validity revealed a strong correlation between TL-ALPE and other EP pre-school language test for Expressive and Total Language scores. **Conclusion:** TFF-ALPE and TL-ALPE are valid and reliable assessment instruments that speech-language pathologists (SLPs) can use with EP-speaking children for diagnoses purposes.

Wednesday, 08th of July 2015

New challenges in therapeutic intervention

Etelvina Lima

Coordinator of the Speech Language Therapy Degree at School of Health Sciences - Polytechnic Institute of Leiria

Resulting from the inclusive policies implemented in the education system in Portugal, the SLT is usually one of the professionals working in the special education teams, particularly in those located in reference schools. However, the populations for which these teams are directed are just a small part of the children with communication, language, fluency and/or speech disorders. In this way, these children are out of reach for SLT intervention. Without these services provided by this professional the quality of participation of these children in their community is evidently at risk. Since, SLT have the professional responsibility to implement prevention, assessment and intervention in the area of human communication, it is essential to act in order to change this reality. The challenge arises in the form of "how?". The Evidence Based Practice (EBP) primarily aims to solve clinical problems through the use of tools that determine the benefits and risks of the various intervention strategies, providing care that makes a difference in terms of health gains and quality of life. Beginning of the twentieth century, the EBP revolves around the concept of "evidence" understood as scientific evidence. One of the possible ways to prove the cost-benefit / effectiveness of speech-language therapy intervention to the competent authorities and change the political perspectives may pass by EBP. However, implementing EBP is a challenge for both experienced professionals and to the future SLT implying the need to overcome problems such as lack of literature to support these practices and / or the time involved in the development of EBP.

Speech techniques to help stuttering children using "Apps Games"

Mónica Gaiolas, SLT

This communication is intended to present a stuttering Android application designed especially for school-age children who stutter. The two main goals of this application are to create and improve fluency and to help children, their families and school community to understand and deal with stuttering. The application contains an e-book and games to improve fluency. The e-book, written by the sole author and translated into English, is called "Ernest, the stuttering boy and his family". This e-book tells the story of a boy who stutters and explores his and his family and friends' difficulties in dealing with it. It also helps the child to understand what stuttering is and gives sound advice and counselling to parents and educators about improving communication with a child who stutters. The games are designed to explore talking (what happens to our body when we speak), to explore stuttering (what happens when the air flow is blocked and where we can block the air in our mouth - awareness of the harsh or smooth articulation contacts). They also teach the children to make easy starts and light articulatory contacts with several practical items. In the games it is also possible for the therapist to introduce other stuttering techniques like voluntary stuttering or "pull-outs" (move through a blocked word softly). This application can also be used by speech therapists to work with children with articulatory problems at the preschool or school-age level.

Speech therapy in Portugal: five decades of history

Isabel Guimarães

School of Health Sciences at Alcoitão-SCML, Clinical Pharmacological and Therapeutics Unit - Instituto de Medicina Molecular, Lisbon University

The intended purpose is to present the relevant educational, ethical, legal and social events regarding Speech Therapy in Portugal exposed in the book entitled 'Speech Therapy in Portugal: five decades of history'. The book is organized by decades since the idea from the Santa Casa da Misericórdia de Lisboa (SCML) in 1957, through the first speech therapy course origin in 1962, until the first decade of the XXIst century. The contents, written in Portuguese, derive from the existing sources at the Escola Superior de Saúde do Alcoitão-SCML, the Portuguese Association of Speech Therapists and the testimonies of some the protagonists of the story.

Thursday, 09th July 2015

Swallowing disorders in a geriatric population: Does the opinions converge?

Dália Nogueira

Coordinator of the Speech Language Therapy Degree at the School of Health Sciences at Alcoitão-SCML

The purpose of this study was to evaluate the swallowing patterns among a community of nursing home residents and compare the SLT assessment with the individuals' and the staff opinion. About 150 elderly living in nursing homes were evaluated. Sociodemographics variables as well as elderly's functional status were registered. To evaluate the swallowing function, the 3oz wst and the Quick Assessment Questionnaire for Dysphagia were applied. Residents were asked to fill the European Portuguese version of the EAT 10 (P-EAT-10) and a questionnaire was also applied to the staff. Finally, the results of the SLT assessment, the self perception of the elderly and staff opinion were compared using descriptive analysis, correlation and association measures. SLT's assessment identified a high proportion of individuals with signs of dysphagia, many of them not identified by the staff. The elderly's self perception differed also, in many cases, from the SLT evaluation. The results point out that the identification of clinical signs of dysphagia contributes to prevent its severe consequences. However, if the individual and the nursing home staff don't act in accordance with the severity of the problem and SLT recommendations, this situation exposes the elderly to constant risks of everyday life.

Friday, 10th July 2015

Parental alienation syndrome - the role of the SLT

Helena Germano

School of Health Sciences-Instituto Politécnico de Setúbal

The separation or divorce of a couple is often conflicting and the adaptation of the children in these situations stems from the attitude that parents assume. If constructive, promotes an easier adjustment because it includes protective elements, truth, question clarification and emotional support. At the other end, children can be manipulated by one parent against the other; the child is transformed into an ally that promotes demoralization of the other parent, rejecting him and charging him guilt, being induced to break the affective and relational ties he had with him.

This has consequences on child development as it may be generating anxiety, depression, eating and sleeping disorders, regressive or hostile behaviour modification and school performance modification. SLT's often deal with these situations of child suffering, not always easy to identify, and can receive parental implicit or explicit requests to take sides or to be witnesses in court. These circumstances can lead to ethical conflicts in the process of care and decision making, which will be analysed and debated.

Speech Therapy as a support net. Ethics amongst peers

Maria João Cunha

Coordinator of the Speech Language Degree of ESTSPorto

Ethics is the theory about how we should live our lives. Professional ethics is a set of norms regarding use during professional practice. There is a close connection between ethics and professional deontology (set of ethical norms and jurisdiction that rules professional behaviour).

For the Speech Therapist, the present code, advocated by APTF, refers the need to protect the patient well be, to keep up with more recent knowledge, but addresses also the need of a rightful representation of our profession. The code is only for those of APTF, naturally. But ethics shouldn't be an option: is a basic need for society protection against professional abuse. Getting into an undergraduate course, like ST makes us rethink our obligations from the start. For better serving those we work with, now or later. Sometimes it is difficult to identify ourselves with the group we get into or understand the values of others who surround us. But we all expect independence, trust, responsibility, solidarity and professional secrecy are values we all share and follow.

Free Communications

Monday, 06th July 2015

Frenchay Dysarthria Assessment, version 2: Preliminary data of its validation with People with Parkinson's Disease

Rita Cardoso^{1,4}, Isabel Guimarães^{2,4}, Helena Santos^{1,4}, Rita Loureiro¹, Joana Carvalho^{1,4}, Serge Pinto³ and Joaquim Ferreira^{1,4}

¹Campus Neurológico Sénior (CNS), Torres Vedras, ²School of Health Sciences at Alcoitão-SCML, ³Laboratoire Parole et Langage, Aix-en-Provence, França, ⁴Clinical Pharmacological and Therapeutics Unit - Instituto de Medicina Molecular, Lisbon University

Background: Dysarthria is a common feature in Parkinson's disease (PD) and actually there is a lack of validated instruments to assess speech in PD. The FraLusoPark is a multi-centric and international project to study speech disorders in PD and several instruments were translated, adapted and validated inside its framework. **Purpose:** To validate FDA-2 for the assessment of oro-motor function in People with Parkinson's disease (PwP). **Method(s):** The FDA-2 was administered to 80 PwP. The psychometric properties, reliability (internal consistency and inter-judge reliability) and validity (face and convergent) were measured. Instruments to assess disease severity were applied at the same moment. **Results:** FDA-2 revealed high reliability for the total score (0.94), an excellent inter-rater agreement of the total score (0.96) and moderate to large construct validity for 81% of the items. It is well correlated with the gold standard tool, MDS-UPDRS, an instrument for disease severity assessment in PD. **Conclusion:** The FDA-2 shows the salient features of a valid tool to be used by SLT in PD dysarthria assessment.

Keywords: Parkinson disease; Speech; Dysarthria; Outcome assessment.

Clinician and patient-based outcomes for swallowing assessment in Parkinsonism: Preliminary results of a systematic review

Helena Santos^{1,3}, Rita Loureiro¹, Rita Cardoso^{1,3}, Isabel Guimarães^{2,3}, Joaquim Ferreira^{1,3}

¹Campus Neurológico Sénior (CNS), Torres Vedras; ²School of Health Sciences at Alcoitão-SCML; ³Clinical Pharmacological and Therapeutics Unit - Instituto de Medicina Molecular, Lisbon University

Background: The traditional dysphagia assessment includes mainly physiological approaches, but clinician- and patient-based outcomes are useful and essential instruments in the swallowing disorders assessment. **Purpose:** The aims of this preliminary study are to: identify, describe and classify the available clinician and patient-based outcomes used to assess swallowing disorders in People with Parkinsonism. **Methods:** A comprehensive electronic search involving Pubmed and Cochrane databases and a hand search of reference lists was conducted, without limitations to yield the maximum possible number of relevant studies with reference to dysphagia instruments. **Results:** Eleven outcomes, three clinician-based and eight patient-based, were included in this review. **Conclusion:** This preliminary analysis shows that there are instruments more suitable for the use in Parkinsonism when performing a clinical evaluation and that in the last years an effort has been made to create specific tools for this population.

Keywords: Parkinson disease; Parkinsonian disorders; Outcome of assessment

Communication abilities profile of the Person with aphasia and his/hers Caregiver

Ana Lúcia Mano, Andreia Amaro, Joana Pinheiro, Elsa Soares and Sónia Pós de Mina

School of Health Sciences, Polytechnic of Leiria

Background: The Caregiver creates a communicative dyad along with the Person with aphasia (PA) in which, desirably both make themselves available to communicate. The Caregiver provides communicative support, influencing the behavior of the other. It is crucial to discover the most effective way to communicate. **Purposes:** The goals are: a) identify communicative difficulties presented by the Caregiver of the PA when interacting with him/her; b) identify the communication struggles presented by the PA; c) identify strategies that facilitate the communication between the Caregiver and the PA and, at last d) determine the dyad's communicative profile: Caregiver and PA. **Methods:** Qualitative methodology, non-experimental type and descriptive drawing. The data collection occurs transversely. The sample is composed by 20 dyads. Variables are: the strategies used by the PA; the strategies used by the Caregiver with the PA and the PA and Caregiver's communicative abilities perception. The data collection was made with a sociodemographic survey and the CAPPA-P Breve instrument. **Results:** The PA underestimates their linguistic abilities and overrate other skills (correction; turns beginning and exchange; management of the conversation topic's abilities), when compared to the Caregiver's perception. There is a wide range of strategies that are identified by the dyad's elements. **Conclusion:** The Caregiver assumes a fundamental role in the dyad's interaction, promoting the PA's communicative abilities.

Keywords: Communication, Strategies, Person with aphasia, Caregivers

Auditory discrimination in Portuguese toddlers

Diana Fernandes, Joana Marques and Etelvina Lima - School of Health Sciences, Polytechnic of Leiria

Background: Auditory Discrimination (AD) is a fundamental skill that underlies language development. Studies highlight the importance of researches in this area to enable reliable data in specific age groups. **Purpose:** The goal of the study was to identify and analyse AD performance in toddlers. **Methods:** It was conducted a non-experimental, descriptive, quantitative study, with 45 participants (22 female; 23 male): Portuguese toddlers aged between 4 years old and 4 years and 11 months (M). This sample was divided in two groups: children aged between 48-53M and 54-61M. It was applied a language test and socio-demographic questionnaire to establish the inclusion criteria. To collect data about AD it was used the Protocolo de Avaliação da Discriminação Auditiva (PADA). The data was analysed using the SPSS program, enabling an inferential descriptive analysis. **Results:** With the scores of PADA the findings indicated that there are higher levels of AD in older children (Md=102.00) compared to younger (Md=100.50). Moreover, the results point out a hierarchy of competence, since children performed better in terms of phoneme discrimination in words and the worst performance in the discrimination of sentences. **Conclusion:** This study showed that age is an important factor in the development of AD, since the results obtained corroborate many previous studies that suggest that the best AD performance is directly related to advancing chronological age.

Keywords: Auditory discrimination, Toddlers, Assessment

Assessment practices of Speech language Therapists in Portugal with children in the pre-linguistic period

Ana Graça, Susana Samgy, Monica Rema, Gisele Tassarolo, Etelvina Lima and Andreia Salvador - School of Health Sciences, Polytechnic of Leiria

Background: The earlier communicative-linguistic alterations are identified, the earlier will intervention implemented. The assessment should offer the Speech Language Therapists (SLT) accurate information, however, the lack of national tools can be a determinant factor of quality assessment and intervention in this period. **Purposes:** (i) To identify the assessment methodologies used by SLP in the pre-linguistic period; (ii) To determine their satisfaction degree regarding to the methodologies used; (iii) to determine the opinion of SLT in Portugal about the assessment practices developed with this population. **Methods:** The research design is descriptive, quantitative and transversal, through the application of an electronic questionnaire. Statistical analysis will be performed with the SPSS. Ethical implications: this study was approved by the Ethics Committee of Coimbra Nursing School. Implications for the health practice: contributes to the existence of evidence concerning the evaluation process in the pre-linguistic stage. **Results:** The SLT in Portugal conduct informal evaluation (48.1% always), assessment through translated instruments (40.7% most often) and assessment with formal instruments (40.7% never). In informal assessment subjects have pointed out aspects of communicative intentionality (37.0%) and forms of communication (33.3%) as the most prized. Participants apply always or most of the time, the practices referring to the assessment organization as well as the subsequent practices at the time of the evaluation. **Conclusion:** A national instrument, would homogenize the assessment practices in this period.

Keywords: Language development, nonverbal communication, infants, speech language pathologists, Portugal.

Tuesday, 07th July 2015

Diagnose of laryngeal pathologies using speech signal processingHugo Cordeiro¹, Isabel Guimarães², José Fonseca³ and Carlos Meneses¹¹Department of Electronic, Telecommunications and Computers, ISEL-IPL, Lisbon; ²School of Health Sciences at Alcoitão- SCML and Clinical Pharmacological and Therapeutics Unit - Instituto de Medicina Molecular, Lisbon University, ³Department of Electrical Engineering, FCT - UNL Caparica, Portugal

Background: Speech signal processing techniques provided several contributions for pathological voice identification where healthy and unhealthy voice samples are classified. **Purpose:** This study identifies which speech signal information allows distinguishing between healthy voices, physiological larynx pathologies (vocal fold edema and nodules) and neuromuscular larynx pathologies (unilateral vocal fold paralysis). The variables in the study are the sustained vowel /a/ or continuous reading speech, the speech features with or without perceptual information and the classifiers. **Method:** Three classes of signals were organized: voices from 59 subjects with physiological larynx pathologies; voices from 59 subjects with neuromuscular larynx pathologies; and 36 voices from healthy subjects. Training and test data were rotated to evaluate all the data set. The best classifiers are then fused to improve the overall result. **Results:** The fused classifier combines continuous speech with the sustained vowel /a/, spectral and perceptual speech features, achieving an overall accuracy of 84.4%, which represents an improvement of 9% compared with the best stand-alone approach. **Conclusion:** Results indicate that the effort required to produce continuous speech helps in the physiological larynx pathologies identification. Also, systems have better results in pathology identification when applying perceptual information, namely in physiological larynx pathologies identification. Sustained vowel /a/ has only the best result in the diagnoses of neuromuscular larynx pathologies.

Keywords: Voice, Laryngeal pathologies, Speech signal

Pediatric voice handicap index: Pilot study in European Portuguese¹Sandra Ferreira, ²Susana Vaz-Freitas and ²Isabel Carvalho¹Universidade Fernando Pessoa; ²CHP-Hospital Santo António

Background: Dysphonia is present in a wider number of children, with a negative impact on social interaction and academic proficiency. The importance of measurement instruments that reflect the magnitude of voice problems and the efficacy of Speech Therapy is enhanced. **Purpose:** To present the results of a pretest of the self-perceived impact of voice quality in quality of life questionnaire - pVHI- Pediatric Voice Handicap Index, in European Portuguese speakers. **Methods:** The pVHI questionnaire was translated, back-translated and analyzed by experts. It is assumed, for European Portuguese, the name Índice de Desvantagem Vocal Pediátrico (IDV-p). This was applied to 43 parents of children aged 6-10 years old. The study was authorized by the Ethics Committee for Health. **Results:** The average age was eight years, with male gender predominance. The average values of the sub-domains and the total score of the IDV-p was always higher in the study group, with statistical significance (except for the functional sub-domain). In the last question (global voice perception) this tendency was also observed. **Conclusion:** The IDV-p questionnaire can be used as a tool in assessing voice quality in children, differentiating between children with and without voice complaints. These data correspond to the initial stage of the IDV-p validation.

Keywords: Childhood, Dysphonia, Questionnaire, Translation, Adaptation

Vocal fold paralysis/paresis - Audio-perceptual assessment - before & after Speech Therapy¹Elisabete Cardoso, ²Susana Vaz-Freitas and ³Sónia Pais¹Universidade Fernando Pessoa; ²CHP-Hospital Santo António; ³School of Health Sciences, Polytechnic of Leiria

Background: Voice assessment is considered the first step in therapeutic approach and includes procedures in order to describe voice quality. The audio-perceptual assessment is one of the tools that Speech Language Therapists use in clinical practice. The chosen scale was RASAT, which assesses hoarseness, harshness, breathiness, asthenia and strain. It results from the translation and adaptation of GRBAS to Portuguese. **Purpose:** This study aims to analyze the results achieved by a group of patients with vocal fold paralysis using audio-perceptual evaluation, before and after Speech Therapy intervention. **Methods:** It was performed a retrospective analysis of the results obtained in a group of 75 patients with vocal fold paralysis, followed in Speech Therapy at Centro Hospitalar do Porto- Hospital de Santo António. **Results:** The type of paralysis was variable, however, most of the subjects had unilateral left vocal fold paralysis, in the paramedian position. Differences in audio perceptual classification, based on the RASAT scale parameters, proved to be statistically significant ($p < 0.01$), except in the strain parameter. **Conclusion:** Speech Therapy in cases of vocal fold paralysis is effective and the patients show substantial improvements in voice quality.

Keywords: Vocal fold paralysis, Voice assessment, Audio-perceptual assessment.

Discourse processing in elderly healthy population

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Background: Many patients with right hemisphere lesions or patients with dementia have specific problems with discourse comprehension. Diagnostic methods, which examine just word comprehension do not detect deficits on discourse level. To comprehend the discourse it is necessary a certain level of cognitive functions and general knowledge. The educational level may influence the character and amount of knowledge. **Purpose:** Our aim was to investigate, how the healthy population scores, the level of the discourse comprehension and to find out if the educational level has some impact on the performance in this domain. We examined 30 people in aged 60 and over. The experimental sample constituted just from respondents, who reached the norm in cognitive screening with MoCA test (Slovak version: Cséfalvay, Marková, 2011). For the investigation of the discourse comprehension we used complex diagnostic battery from Markova, Matisová (2012). **Results:** Our study demonstrates that education has an influence on discourse processing. The best performance was present in a group with the highest education. In general, all three educational groups showed the lowest percentual achievements in the metaphoric language. The most sensitive tasks were the description of the picture, pictures ordering based on logical sequence, comprehension of the story and metaphoric language. **Conclusion:** The findings would be useful for the comparison with pathology. This would help carry out more accurate diagnose and therapy. Ignoring deficits of the discourse comprehension would make the therapy ineffective or unsuccessful.

Keywords: Language processes, Discourse, Education, Elderly healthy population, Comprehension

An interactive computer environment to motivate children in speech and language therapy

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Background: Visual Speech is an interactive platform designed to assist speech and language therapists (SLT) during and after speech therapy sessions. The platform has an in-session interactive environment that includes biofeedback mechanisms that allow self-monitoring of speech performance. This combined with motivational elements like a progress bar and augmented reality reward mechanisms, make speech therapy much more interesting and motivating to the patients. With this environment, it is also possible to capture audio-visual recordings and annotations of the session for later analysis. While the platform is prepared with visual and interactive elements to support exercises for articulation problems, we are also including elements to support exercises for voice problems. **Methods:** The in-session platform was tested in real speech therapy sessions with 14 children with ages between 4 and 10 years old. **Results:** The tests showed that the children reacted positively to the in-session interactive environment and its visual elements, especially to the reward mechanisms. It was observed that the progress bar helps children to be more aware of their performance and that 79% of the children who participated in the test collaborated more during the therapy session when Visual Speech was used. **Conclusions:** When used in speech therapy sessions Visual Speech helps the SLT on maintaining the child's focus and motivation in the planned exercises. This environment can contribute to more productive sessions and therefore to faster improvements of the child's speech.

Keywords: Biofeedback for speech therapy, Reward mechanisms for speech therapy, Assistive technology

Enabling non-intrusive facial-Anthropometry in Speech Language TherapyRicardo Carrapiço¹, Margarida Grilo², Isabel Guimarães^{2,3}, Sofia Cavaco¹ and Joao Magalhães¹¹Dept. Computer Science, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal; ²School of Health Sciences at Alcoitão- SCML, ³Clinical Pharmacological and Therapeutics Unit - Instituto de Medicina Molecular, Lisbon University

Background: The tools used in Speech and Language Therapy sessions for facial anthropometry can be quite intrusive creating discomfort to the patient. This is especially problematic when applied to children, who can be impatient and may not grasp the benefits of the therapy. For these reasons, speech therapy could benefit from a computational system for 3D video acquisition and analysis. **Purpose:** In this paper we explore new ways of improving speech therapy with a set of computational applications that provide better and richer inspection tools. **Methods:** The first contribution is a video recording application that captures both visible and infrared images and audio. The patients' faces and voices are recorded to allow the speech and language therapist (SLT) to examine the therapy exercises after the session. The second contribution is a Web-based repository of all videos recorded by the SLT. The Web application allows searching for similar facial-anthropometries, speech productions or to filter patients by pathologies. The third and most relevant contribution is a 3D visualization of the patient's face, which is a key tool to carefully examine facial anthropometry, patients with facial paralysis, and, to measure the evolution of the patient in a quantified manner. These tools enable the therapy session to be more natural, with less instruments that cause distractions, and let the SLT do a scrupulous examination of the patient's speech production and facial anthropometry. **Conclusion:** This work is a starting point for the research of new methodologies in speech therapy that explore this new rich information.

Keywords: 3D visualisation, Facial anthropometry, Assistive technology

Aeronautical communication - Preliminary study for the construction and validation of the perception of speech and voice questionnaire (AEROVOZ)

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Background: Communication in aeronautics is a topic heavily discussed today to be a major factor in triggering the majority of incidents/accidents in aviation, involving human error as the main cause. Regulatory aviation entities have emerged efforts to combat this problem, however such features as the impact of stress on vocal quality and speech intelligibility have been little studied and taken into account in the initial training of pilots. **Purpose:** To build and validate the perception questionnaire of spoken voice in aeronautical communication (AEROVOZ). The main objectives of this instrument are: contribute to the training of the pilots and get safety indicators in aeronautical communication. With the construction of this instrument, the researchers intend to characterize perceptively, the pilot oral speech and the intelligibility of the spoken voice in aeronautical context. In order to validate this instrument it was built an online questionnaire that aimed to verify the accessibility of the vocabulary and ensure comprehension of instructions and items AEROVOZ questionnaire. **Methods:** After the construction of the questionnaire it was necessary to handle a preliminary study concerning the content and facial validation of the items. **Results:** Presentation and demonstration of the relevance of materials built for the study of communication in aeronautics. **Conclusion:** Suggestion of possible improvements of the built instruments and directions to improve it and continue the validation process.

Keywords: Aeronautical communication, Voice, Validation, Questionnaire

Mathematic challenges resulting from language difficulties

Ana Peixoto – ESTS Porto

Background: Linguistic symbols provide humans with a species unique format for cognitive representation. “That is, when a child learns the conventional use of linguistic symbols, what she is learning are the ways her forebears in the culture found it useful to share and manipulate the attention of others in the past” (Tomasello, p.13, 2003). Symbols are used in math in a similar way used in language. Mathematical disorders occur in tasks involving symbolic and nonsymbolic number comparison with small and large magnitudes. **Methods:** This is a systematic review of literature published in the last 5 years using Pubmed with key words impact language disorders math. From 21 articles only 5 were considered according to the inclusion criteria. **Results:** One can see in literature that reading and mathematics investigation have largely evolved in the last years, however very few articles correlate these two areas together. Hypothesis are presented: a) Reading (RD) and mathematical difficulties (MD) might result from an additive comorbidity and reflect a cumulative effect b) Because there are verbally mediated processes in math one can assist of MD and RD co-occurrence c) domain-general impairments in prefrontal cortex that support tasks both math and reading determine MD and RD co-occurrence. **Conclusions:** Language difficulties are pervasive in other areas of academic acquisitions, like math. SLP work with children with language difficulties for whom mathematics might be a symbolic and/or non-symbolic challenge. Being aware of these allows SLP for a better practice with both the children and their teachers and parents.

Keywords: Speech Language Therapy, Language, Mathematics

Wednesday, 08th of July 2015

Caregivers’ opinion about their children’s eating problem

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Background: The children feeding behavior is reflective of the various intrinsic interactions between their idiosyncrasies, the environment in which it occurs and the scale of the task itself. The problematic behaviors related to food have been described as a serious problem for children, caregivers and health professionals, as it can lead to the occurrence of disturbances regarding the child nutrition, growth and quality of life. **Purpose:** To analyse and compare the opinion of caregivers of children between six months and six years of age with and without eating disorders using the Montreal Children’s Hospital Feeding Scale. **Methods:** The scale was administered to caregivers of 30 typically developing children and 10 caregivers of children with eating disorders and then compared when it came to their socio-demographic characteristics and scale partial and total results. **Results:** Statistically significant differences ($p < 0.05$) were found between the groups studied for the total score and for five of the 14 questions. The average age is 38.8 (± 20.2) months in the group with normal development and 41.8 (± 16.5) months in the group with eating disorders. The average gestation weeks is lower in the group with eating disorders, as well as their weight at birth. **Conclusion:** The children here studied have similar characteristics to those found in literature. The caregivers are of great importance to the diagnostic of eating disorders in children and their concerns about it as well as their strategies should be taken into account by health professionals.

Keywords: Feeding/eating scale, Eating disorders, Sensory disorders, Pediatrics.

Young females’ professional voice characteristics: preliminary data

Isabel Guimarães

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Background: Delivering TV news in Portuguese culture demands stringent, persistent, and controlled speaking voice. Different news forms (duration and/or style) are delivered with different vocal strategies, such as a contextualized modification of pitch, variations in speaking rate, strategic demarcation and duration of pauses, precisely all on top of well-defined and executed articulatory pattern. **Purpose:** To determine female professional voice characteristics while reading and to compare it to non-professional females. **Methods:** Thirteen young female Portuguese broadcaster journalists and 13 matched controls were analysed. The frequency and temporal measures were measured during reading aloud of a standard passage. **Results:** The young female journalists’ group was found to have a significantly higher pace of reading, lower number of pauses and lower pause duration than the controls. No significant difference between the groups was found in the frequency measures. **Conclusion:** There are significant temporal differences between professionals and non professional voice users.

Keywords: Female, Professional voice, Speaking voice

Prospective analysis of articulation performance of children with and without language disorders

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Background: Speech and language disorders are very common in child development. **Purpose:** To analyze prospectively and compare children's articulatory performance (articulatory errors and its frequency) - AP- at two assessment moments according to language development. **Methods:** 32 participants (19 ♀; 13 ♂), aged between 4 to 8 years old, attending pre and primary school in Lisbon, did a language test (1st assessment) and a speech screening test on both assessment moments (one year in between). AP was analyzed according to language test results (normal and disordered). **Results:** There is a positive development, from 1st to 2nd moment, regarding participant's AP (error frequency has declined). At the 1st moment disordered obtained the highest number of articulatory errors. Normal had less articulatory errors, but presented a higher number of altered sounds. At the 2nd moment, normal revealed more articulatory errors, but presented less altered sounds. Normal can easily overcome articulatory errors, while disordered tend to increase the type of error from 1st to 2nd moment.

Conclusion: Language performance may effectively interfere with AP that's why normal can easily overcome articulatory errors due to their linguistic maturity. Articulatory errors occur mostly in consonant blends, fricative and liquid phonemes, with greater incidence on omissions and substitutions. Although study limitations (reduced sample; heterogeneity in gender and age; missing written records of language tests), study results provide clues to speech and language therapy clinical procedures and to further research, in order to better understand childhood linguistic and articulatory development.

Keywords: Articulatory performance, Language, Articulatory and Linguistic development.

Speech and oral motor performance in children

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Background: Oral motor disorders (morphological or/and functional) are frequently associated with speech performance in childhood. **Purpose:** Characterize and compare differences between articulation and oral motor performance in children with and without speech disorders. **Methods:** The sample comprises 169 Portuguese children (31 with speech disorders and 138 with normal speech), aged between 6 and 10 years old, from a School at Odivelas. Participants were assessed with a speech screening test and an orofacial motor test. Speech performance was assessed through a naming task to analyze the number of correct consonants, number of errors, type of errors and the quality of global production of each stimulus. Oral motor performance was assessed through morphological and functional characteristics of the lips, jaw, teeth and gums, dental occlusion, tongue, hard and soft palate and breathing. **Results:** Boys had more speech disorders than girls. Speech errors were mainly substitutions and distortions. As the age increases speech disorders tend to decrease. Children with speech disorders revealed a higher percentage of augmented tonsils. **Conclusion:** We suggest further research on the topic with a more homogeneous sample and assessment of facial characteristics in order to improve diagnosis and treatment of speech and oral motor performance.

Keywords: Children, Speech performance, Oral motor performance, Speech disorders.

Thursday, 09th July 2015

Reading proficiency in adults

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Background: Reading proficiency includes fluency (number of words read per minute) and accuracy (percentage of words read correctly). **Purposes:** To measure reading proficiency according to fluency and accuracy; Compare reading accuracy on the basis of words and pseudo-words; Compare the reaction time in reading words and pseudo-words and correlate with reaction times of reading proficiency. **Methods:** Cross-sectional study, quantitative and descriptive-correlational. Between november 2013 and january 2014, 40 literate subjects were analyzed, aged between 18-26 years old, native speakers of European Portuguese, without neurological pathology and/or psychiatric disorder. Each subject was assessed by an initial interview, signed an informed consent to use the data collected, then using the passage "O Rei" that allows to analyze the fluency and the accuracy of reading, and counting the reaction times of words and pseudo-words from the study of Pinto, Costa & Villalva (2014). A statistical analysis was made using SPSS version 21. **Results:** The sample showed a mean value of 174 words/minute on the reading fluency proof "O Rei" and 100% on reading accuracy. No statistically significant differences were found in the accuracy of reading words and pseudo-words, however, this study showed statistically significant data in reading reaction times of words and pseudo-words. Was found that there was a moderate negative association between reading proficiency and reaction times of reading words. **Conclusion:** The performance level of the participants was excellent or consistent, showing skills in reading.

Keywords: Adults, Reading, Language, Reaction time, Word processing

Counselling provided to caregivers of babies with cleft lip and/or palate - Prenatal and neonatal careHelena Pimenta¹ and Marta Pinto^{1,2}¹Escola Superior de Tecnologia da Saúde do Porto - Instituto Politécnico do Porto; ²Equipa Local de Intervenção Precoce Espinho/Gaia, SNIPI

Background: The diagnosis of Cleft Lip and Palate (CLP) can begin throughout the prenatal period, from the second trimester of pregnancy, or in the neonatal period. According to specialists Robbins et al., (2010), Kutenberger et al. (2010) and Rey-Bellet e Hohlfeld (2004), usually, this diagnosis has a significant impact on the family. The literature indicates that one of the research priorities in the area of orofacial clefts is the knowledge of the different effects of these diagnoses, evidencing the role of Speech and Language Therapist (SLT) in the follow-up of those families. **Purpose:** Therefore, we aim to identify, characterize and describe the role of this professional in the pre and neonatal counselling provided to caregivers of babies with CLP. **Methods:** To achieve the outlined objectives it was developed a narrative review, with a selection and analysis of published articles, between 2000 and 2015, based on reference authors such as C. Rey-Bellet, E. Altmann, L. Flasher, P. Fogle, J. Hohlfeld, J. Robins or R. Strauss. **Results:** The prenatal diagnosis enables a more effective preparation for neonatal baby needs. During this period, SLT can advise parents, looking for a co-responsibility and guidance to promote family skills, particularly in the feeding process. According to the research, this area stands out as that which is most needed for prospective parents. The satisfaction of families with this counselling reaches high values. **Conclusion:** In summary, when comparing the two types of counselling, the support provided during prenatal period is considered, by parents, as essential and most advantageous.

Keywords: Cleft lip and/or palate, Speech and language therapist, Counselling, Prenatal, Neonatal.

The presence of vocal alterations and self-perception of the same in Primary teachers from the county of Leiria

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Background: Teachers are a professional group that presents a high predominance of voice disorders. Therefore, this study has an innovating character considering the target population, having the perspective of a better knowledge concerning the predominance of voice disorders and the self perception of the same on Primary teachers from the county of Leiria. **Purposes:** Determine the amount of Primary teachers with vocal alterations on the county of Leiria, characterize how they see themselves concerning their voice and correlate their self perception of vocal alteration and the presence of it in these professionals. **Methods:** The drawing of this study is non-experimental, quantitative, descriptive-correlational and transversal. We had the involvement of 82 primary teachers from the county of Leiria. The research tools used were the Interview Script from Guimarães (2007), the Questionnaire for self-evaluation about the impact of voice in the quality of life (VHI) and an Informal Protocol for vocal assessment. **Results:** According to the results obtained through the statistic analysis, one can conclude that there is a weak or almost null correlation between the presence of voice disorders and the self perception of these. **Conclusions:** Through these results one can see that most of the teachers who present voice disorders do not value the importance of a healthy voice for a better professional performance showing that vocal quality does not have any impact in their lives.

Keywords: Teachers, Voice perception, Voice disorders

The influence of shared reading practice between parents and children in MLU

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Background: The language acquisition is a permeable process shaped by several factors, and these skills can be stimulated, by others, during shared reading activities between parents and children. This practice involves reading stories to children, encouraging conversation and debate about them. MLU emerges as a linguistic measure that mirrors the child's grammatical development and that also allows the measurement and analysis of spontaneous speech samples. **Purposes:** The objective of the study is related to the investigation of the existence of a relationship between the MLU in children between 3A0M and 3A6M, speakers of European Portuguese and shared reading habits. **Methods:** It was conducted a quantitative study of the exploratory type. The researchers applied a sociodemographic questionnaire and a questionnaire on shared reading activities to the father and mother of 33 children with typical language development, aspect assured by applying a Language Assessment Test in Children. It was recorded an audio sample of spontaneous speech of each child, then proceeding to their orthographic transcription and morphological analysis. The data were analysed using SPSS software. **Results:** It was found that 31 mothers and 24 fathers perform reading practices with their children, obtaining a significant value to the MLU of 0.336 and 0.034, respectively. **Conclusions:** There is a relationship between the MLU and the practice of reading moments between the father and the child. However, this practice was not checked between mother and child.

Keywords: Parents, Mean length of utterance, Shared reading

The impact of the progenitor's schooling in the shared reading with children from 3Y0M to 3Y6M

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Background: Parents with lower academic education tend to have poorer literacy skills, less confidence in reading aloud and less awareness of the beneficial effects of shared reading with their children. **Purposes:** The objective is to perceive what effect does the degree of academic education of the parent has in shared reading between mother or father and the child. **Methods:** It was conducted a quantitative study of the exploratory type. It has been applied a sociodemographic questionnaire and a questionnaire on shared reading activities directed to the father and to the mother of 33 children with typical language development, aspect assured by applying a Language Assessment Test in Children. The data were analysed using SPSS software. **Results:** It was found that 77.8% of mothers with 2nd Cycle/3rd Cycle and 90.9% with the Secondary Education / Post-Secondary read to their children, and 100% of mothers with Bachelor / graduation also conduct this practice. As for the father's, it was found that 53.9% of them who has 2nd Cycle/3rd Cycle and 75% with the Secondary Education/Post-Secondary read to their children, and 100% of parents with Bachelor/graduation and master's degree also perform that habit. **Conclusions:** Findings show that there is an increase of shared reading practice as the mother and father education level increase.

Keywords: Mother, Father, Academic education, Shared reading

Effectiveness of a health and vocal training program in children of a choir group

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Background: Children are a group exposed to situations of misuse and/or vocal abuse, since they often socialize in noisy environments and share activities that enhance inadequate vocal behavior. Additionally, the target-population of this study practices an activity that requires an additional use of voice: the singing. In this view, additional care with this population should be taken. **Purpose:** This study aims to compare the vocal habits and vocal quality before and after the implementation of a health and vocal training program. **Methods:** It was conducted a quasi-experimental study (pre-test/post-test type) in a sample of 29 children, aged 6 to 9 years, who attend the choir group of Orfeão de Leiria. A vocal health questionnaire and an evaluation protocol of vocal quality were applied. The implementation of the health and vocal training program was held for five weeks in a weekly frequency with activities to promote healthy vocal habits and vocal training. **Results:** After the implementation's program the daily intake of water was increased by 3.4% and the water intake at nature temperature was increased by 17.3%. There was a significant change ($p = 0.002$) in performing warming and relaxation exercises. The values of the coefficient s/z increased in the post-test (from 0.846 to 0.931). **Conclusion:** The implementation of the program revealed a positive impact, however, it is important to continue the study considering a more representative sample of the population and its implementation over a longer period of time.

Keywords: Voice-quality, Children, Singing vocal training, Vocal health habits

Friday, 10th July 2015

Items to assess in the realization of prerequisites for Speech and Language Therapy degree candidates

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Background: The Speech and Language Therapy (SLT) student, as a future professional in the human communication field, needs to meet certain requirements. In Portugal, there is a need to conduct prerequisites for access to a SL degree with an inquiry to be completed by an SLT. However, there is not a unique model of inquiry and each higher education institute uses its own, which increases the subjectivity of the process. **Purpose:** To characterize the SLT's perspective, considering the realization of SLTD prerequisites; To characterize the assessment tools used by SLT in assessing the prerequisites; To check the relationship between SLT prerequisite assessment and their thoughts about what should be assessed.

Methods: The study is quantitative, descriptive, non-experimental and transversal. Data was collected through an online survey and analyzed using descriptive statistics. The target population is native Portuguese SLT, constituting a snowball type sample, coming to a sample of 159 SLT. **Results:** The results show that most SLT believe that assessing the candidate prerequisites is important (98.1%), all of them also refer the importance of a procedural script. Half of the participants have experienced difficulty in assessing candidates (49.7%). The evaluations carried out are mostly informal (34% use formal proofs and 85.5% informal proofs), being language and speech the most assessed areas. **Conclusion:** There is not uniformity in the proceedings concerning the assessment of prerequisites, this highlights the need of a procedural script common to all higher education institutions.

Keywords: Students, Skills, Speech and language therapy, Higher education, Prerequisites

Speech Language Therapists: The integration in Portuguese mental disorders' teams

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Background: The studies undertaken up till today related to Speech Language Therapists' integration in the Mental Health Teams in Portugal is scarce. **Purpose:** Identify the number of Speech Language Therapists (SLT) integrated in Portuguese mental health intervention teams; Indicate the mental health pathologies in which the SLT intervenes more frequently; Compare the level of need and pertinence of SLT services between the mental health teams that have this service and the ones which do not have it; Characterize the Portuguese mental health teams having into account the professionals that compose them. **Methods:** Descriptive and exploratory study; quantitative and qualitative; and cross-sectional. The researchers contacted and sent the questionnaires to 206 teams that accompany People with Mental Disorders in Portugal. From these the researchers could count on the participation of eight teams. Questionnaires were applied to the responsible for the team and to the Speech Language Therapist, if this professional existed in the team. The data was analyzed using SPSS; content analysis was used in open questions. **Results:** There are six SLT on eight Mental Health Teams. They intervene more frequently on schizophrenia and bipolar disorders in the areas of Language, Reading and Writing. Six of the 7 responsible for the teams refer that would fit an SLT because it was an assault on the intervention. **Conclusion:** The professionals integrated in the team with more frequency are SLT, Occupational Therapist and Psychologies. The most frequent professionals integrated in the teams are SLT, Occupational Therapists and Psychologists.

Keywords: Speech language therapy, Mental illness, Intervention team, Portugal.

pVR-QOL - Translation and adaptation for European Portuguese

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¹Universidade Fernando Pessoa; ²CHP-Hospital Santo António

Background: The number of children with dysphonia has been increasing as well as the professional interest on it. The assessment of childhood dysphonia needs multidisciplinary approaches. Among those approaches the impact of dysphonia on quality of life must be addressed. **Purpose:** The description and interpretation of the results obtained in the pretest of a quality of life auto-perceived impact related to voice questionnaire - pVR-QOL - for European Portuguese speakers. **Methods:** The questionnaire was translated and adapted into Portuguese and submitted to a peer review. The final version was applied to 44 parents. Two groups were formed: 37 parents of children without vocal complaints and 7 parents of children diagnosed with vocal pathology. It is subdivided in two parts: social-emotional (questions no. 4, 5, 7, 8, 10) and physical-functional (questions number 1, 2, 3, 6 and 9). All the questions were compared as well as the sub levels. Statistical analysis was conducted using Mann-Whitney test, with a 90% of confidence level. **Results:** The mean age was 7.64 years old. In terms of disease group, 4 children are female and 3 are males, while in no-complaints group 18 children are female and 19 are male. There were statistically significant differences between the two groups. In a discriminative manner, 3 out of 10 questions identify the disease group compared with the group without pathology. **Conclusion:** With this research we conclude that the questionnaire used in this study can be a tool in the assessment and speech therapy intervention, with application in European Portuguese paediatric voice disorders.

Keywords: Childhood, Dysphonia, Assessment, Questionnaire