

# Speed of processing nouns in mother and non-mother tongue in children with specific language impairment

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**Conference presentation / Izlaganje na skupu**

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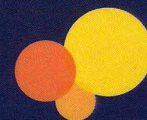
## **Programme and Abstract Book**

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was measured using the cognitive scale of Bayley Scales of Infant Development III (BSID-III) at 2;0. The development of the children was compared to test norms.

**Results and discussion:** The mean receptive lexicon size was 66 words (range: 0-261). Children had acquired all types of words to their receptive lexicon (the mean number of social-pragmatic words 16, nouns 30, verbs 11, adjectives 3, closed class words 4), although the individual variation was high. The mean number of early gestures was 11 (range: 2-17) and the mean number of later gestures was 12 (range: 4-27). 33% of the children had acquired less than 19 gestures (<10% of the norming group). Both the receptive lexicon size and the number of different types of words associated moderately ( $p < 0.05$ ) with later cognitive development (lexicon size  $r = 0.33$ , social-pragmatic words  $r = 0.28$ , nouns  $r = 0.33$ , verbs  $r = 0.32$ , adjectives  $r = 0.27$ , closed class words  $r = 0.29$ ). Also the number of acquired gestures at 1;0 associated significantly ( $p < 0.05$ ) with cognitive development at 2;0 (early gestures  $r = 0.32$ , later gestures  $r = 0.32$ ).

The results provide support for the view that the VP/VLBW children as a group have acquired smaller receptive lexicon size and less gestures than the full-term children at 1;0. Thus, early receptive lexicon and gestures provide important information on the development of preterm children. The results also provided interesting information on the association between early communication and later cognition. Significant associations between these developmental areas propose that they develop in inter-action with each other, at least partially. Thus, early communicative development can provide clinically relevant information on later cognitive development of VP/VLBW children.

**Learning Outcomes:** Very preterm and/or very low birth weight (VP/VLBW) children have smaller receptive lexicon size at 1;0 than healthy full-term children. Roughly 30% of VP/VLBW children have acquired <19 gestures at 1;0, when the respective percentage is 10% in full-term children. The development of receptive lexicon and gestures at 1;0 was significantly associated with cognitive development at 2;0 in VP/VLBW children.

*This abstract advances the priorities of the WHO collaborative plan*

## **PTU090**

### **Processing of Verbs in Children with Specific Language Impairment**

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#### **Abstract:**

Speed of processing in children with specific language impairment has been studied in various contexts. Generally, results showed that their speed of processing is slower than in children with typical language development. When it comes to linguistic tasks, research on speed of processing verbs in children with specific language impairment is especially interesting since verbs are more complex than other words. This research was conducted to explore differences regarding developmental differences of speed of processing verbs. Three groups of 15 children participated in the study; (1) children with specific language impairment (SLI), (2) children with typical language development matched to children with SLI on age and sex, and (3) children with typical language development matched to children with SLI on speech-language status and sex. Speed of processing verbs was examined using E-prime software. Frequency of verbs in Croatian language was used as criteria for choosing stimulus words. Children were compared by accuracy and reaction time in picture selection. Stimulus words were presented in auditory form, and children's task was to choose which one of the three options (presented visually) represents the verb they just heard. One of the pictures represented the target verb, the others contained verb chosen on the basis of phonological similarity with the target verb, and the last one was chosen on the basis of semantic similarity with the target verb. Ordering of picture types was random at each trial and target words were presented to children in random order. Results were analysed at quantitative and qualitative level. Data from this research gives support to thesis that children with specific

language impairments have difficulties with processing verbs. Besides reaction time and accuracy, types of errors were also analyzed. Obtained results have implications for creating therapeutic goals when working with children with specific language impairments.

**Learning Outcomes:** Participants should be able to evaluate processing of Croatian verbs in children with SLI. Participants should be able to implement results from this study in diagnostic and rehabilitation process of children with SLI.

*This abstract advances the priorities of the WHO collaborative plan*

## **PTU091**

### **Feeding Behaviour and Language Development in Preterm and Term Infants over the First 30 Months**

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#### **Abstract:**

Prematurity is recognized as a risk factor for development. Among various problems identified, feeding and language appear as areas of development in which the preterm infants (PTI) have presented major problems.

The main aim of this work was to study the evolution of Feeding Behaviour and Language Development in Preterm and Term Infants (TI) over the first 30 months and how these two processes relate to each other. We also investigated how the maternal perception, maternal stress, gestational age and birth weight are associated with problems in the Development of Feeding Behaviour and Language Development in both groups.

The research design was longitudinal. Four evaluation periods were considered: 0-1 months, 6 months, 18 months and 30 months. The study included 33 PTI without clinical disease, 36 healthy TI, and their mothers. The groups were compared for Development of Feeding Behaviour and Language Development over 30 months. Maternal perception (0-1 months) and maternal stress (in the different periods of evaluation) were also assessed, in both groups.

The results show different developmental trajectories of Feeding Behaviour and Language Development, with a delay in the development of these skills in the group of PTI.

There was a significant positive association between Feeding Behaviour and Speech production in both groups, which corroborates the Integrated Model of Speech Motor Control. It is also observed a significant association between maternal variables (Maternal Perception and Maternal Stress) and Feeding Behaviour and Language Development in the group of PTI over the first 30 months, which supports a Dynamic Systems approach. The clinical implications of the study, limitations and future research areas are the subject of discussion and reflection.

**Keywords:** Prematurity, Feeding Behaviour, Language Development

**Learning Outcomes:** Participants will examine feeding behaviour and language development in preterm infants over 30 months. Participants will recognise different developmental trajectories across feeding and language skills between preterm and term infants.

*This abstract advances the priorities of the WHO collaborative plan*

## **PTU092**

### **An Exploration of Syntactic Abilities of Greek Cypriot Children with (S)LI Using Narratives**

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