



EUROPEAN CLEFT PALATE CRANIOFACIAL ASSOCIATION

12 - 15 JUNE 2019 | UTRECHT, THE NETHERLANDS | CONGRESS

ABSTRACT BOOK

Early speech and language intervention in Brazil: preliminary results from a small randomized study

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Background: *Background:* Young children with palate with or without cleft lip (CP+/-CL) are at risk for early vocabulary and speech sound production delays. Early intervention studies have shown some promising findings to promote early speech and vocabulary development following palate repair; however, we know little about how these interventions can be used in other international contexts. This study adapted an early speech and language intervention developed in the US; Enhanced Milieu Teaching with Phonological Emphasis (EMT+PE) to the Brazilian context at the Hospital for Rehabilitation of Craniofacial Anomalies at the University of Sao Paulo-Bauru.

Aims: *Aims:* The purpose of this study was to compare the speech and language performance of two groups of toddlers with CP+/-CL randomized into an EMT+PE intervention or a business-as-usual (BAU) comparison group.

Methods: *Method:* Twenty children with non-syndromic children between the ages of 19-32 months with CP+/-CL were included in the preliminary findings of the study and is part of a larger intervention study which is still ongoing. Inclusion criteria included palate repair prior to 15 months of age, monolingual Brazilian Portuguese spoken at home, absence of a syndrome or sensorineural hearing loss recruited from the Hospital for Rehabilitation of Craniofacial Anomalies. The children in the intervention group received 30-40-minute intervention sessions twice weekly for 24 sessions. Target words for the intervention were selected from the CDI based on sounds omitted or substituted on the Profiles of Early Expressive Phonology: Brazilian Portuguese. The intervention was provided by a speech-language pathologist in one of two sites in San Bernardo or Bauru, Brazil with parents given training in EMT+PE strategies. The Bauru clinicians were trained to criterion on the EMT+PE intervention by the project PI and they trained the clinician in San Bernardo. Assessments of the children in both groups occurred at three time points before, after and 3 months following the end of intervention. Assessments included a standardized language test, single word articulation test, language sample and the CDI parent questionnaire in Brazilian Portuguese. Any interventions received by the BAU group were documented for therapy type, goals and frequency. Inter and intra judge reliability of speech sound production and language sample transcription were obtained for 20% of the samples. Procedural fidelity of the intervention was assessed at 4 time points and showed excellent fidelity.

Results: *Results:* The pre and post comparison was focused on the changes in single word articulation production. The results indicated a large effect size difference that favored the EMT+PE intervention group for stop consonant production ($d = 0.77$) which were the target sounds for all children in the study. Pre-post vocabulary changes favored the EMT+PE group with an effect size of $d = 1.67$. The children in the EMT+PE group had a mean increase in vocabulary of 238 words while the BAU group increased an average of 87 words.

Summary/Conclusion: *Conclusions:* Preliminary data suggests that EMT+PE adapted for the Brazilian context shows promise as an early speech and language intervention for children with CP+/-CL. However, further data is needed to provide additional insight into changes observed in both groups.