

Faculty Mentor: Dr. Nicholas Smith, Speech, Language and Hearing Sciences

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Vocal Timing in Mother-Child Dialogue: Effects of Maternal Depression

Bridget Holterman and Nicholas Smith

Objective: As a research team, we are studying speech production in the context of caregiver-child interaction, by looking at the time differences of utterances and responses in dialogue between mothers and their children. In our lab we are focusing on how both maternal depression can affect this time gap within Early Head Start families. We hypothesize that mothers who suffer from maternal depression, will also have longer gaps between utterances and responses with their child.

Method: Our analysis makes use of existing sample of video recordings from about 1000 families from the Early Head Start Research and Evaluation Project (EHSRE). In these videos mothers and child are interacting through play with specified toys. We extract the audio from each recording, and use Praat software to identify what each utterance says as well as the time gap between the mother and child. From this we can obtain a variety of temporal measure, including the exact time between the utterances and responses between the mother and child as well as language sample analysis. Next, we look specifically into the mother's mental health history, determining if she suffers from depression, using a CESD scale. We use this knowledge to compare mother's with depression and mother's without depression. .

Results/Conclusion: Our preliminary results show a significant effect of maternal depression, with mothers with higher CESD scores showing slower and more variably timed responses than mothers with lower depression scores.