Socially Embodied Attention: Infants of Struggling Parents

Cognitive Development Lab, Department of Psychology

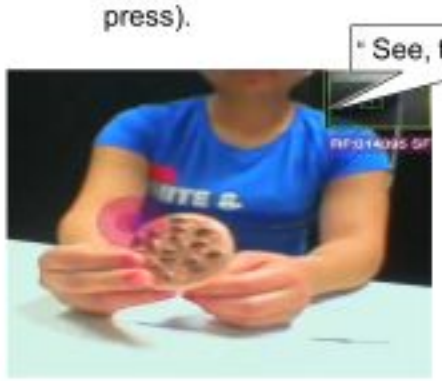
Laura Lay, Sofi Gonzalez, Melisa Williams Ibora,

Anastasia Deeter LCSW-S, Carla Sharp Ph.D., Teresa Duryea MD, and Hanako Yoshida Ph.D.

UNIVERSITY of HOUSTON

Background

- Consequences of Maternal Depression
  - Maternal Behavior
    - Unresponsive and hostile attitudes towards child (O'Hara 2013)
    - Intrusive or withdrawn behaviors (Field 2010)
  - Effects on child development
    - Poorer language and IQ development (Chu 2015; Kingston 2014; Murray 2010)
    - Development of behavioral problems (McLearn 2006)
- Research Question
  - ***What is the mechanism during mother-child social interactions that mediates differences in child development?***
- Nature of Quality Play
  - Visually optimal naming moments (VONM) are relevant to early word learning in young children (Yu and Smith, 2012).
  - VONM
    - **Labeling**- the mother label the object being taught
    - **Visual Dominance**- the object must be dominant in the child's view with least competing objects in view
    - **Child attention**- the child must be looking at the visually dominant object that the mother is labeling
    - **Object handling**- object handling by the mother or child (Yu and Smith, 2012; Burling & Yoshida, in press).



Hypothesis

Mothers who are struggling and/or having adjustment issues with newborns and healthy mothers will actively engage in play, yet infants with struggling mothers will experience reduced VONM compared to the healthy control group during the interactions with their infants.

Methods

PARTICIPANTS

- 5 typically developing infants (M=13.3 months)
- 4 infants with struggling mothers (M=11.9 months)
  - All mothers had EPDS scores above 10
  - One mother was diagnosed with a variety of disorders (e.g., major depressive disorder, bipolar disorder).
  - The other three mothers were not officially diagnosed with depression, so the entire group is labelled as "struggling".

PROCEDURES

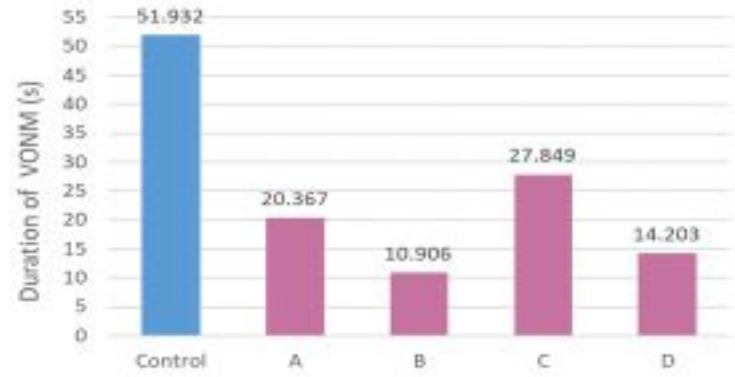
- Mothers taught their infants a series of words with provided toy objects in a 7 minutes long play session.
- Both mothers and infants wore head cameras and eye trackers.

Results

Verbal Data

Duration of Object Holding

Duration of Visually Optimal Naming Moments



Discussion

The purpose of the present study was to explore potential mechanisms underlying previously documented early consequences of maternal depression. In the present study, we specifically focused on the dynamic relation among infant's visual experience, mother's object holding, and mother's object labeling during the social interactions (Yu and Smith, 2012; Burling & Yoshida, in press).

Though the current status of the study is more of a case study due to small sample size, the rich data consisted of observations of over 150,000 frames suggests that achievement of VONM (enriched learning experiences) does not depend solely on the health condition (e.g., struggling and adjustment), but rather, the maternal behaviors affected by their condition.

Our results indicate that there are no drastic differences in parent play activities (e.g., verbalization and holding). However, struggling mothers have lower durations of VONM than mothers in the control group. We will continue collecting, annotating the target behaviors, and analyzing the data to validate the preliminary trends. Given that we do not know how these results develop, we will analyze joint reference between different factors involved in visually optimal learning moments. In addition, we will analyze both child and parent insinuated joint attention and social referencing in order to determine differences in sustained attention between the control and the struggling groups.

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