Maternal Working Memory and Inhibition Differentially Predict Later Maternal Negative Parenting Behaviors

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Introduction

- Research has begun to explore the relationships between maternal self regulation (e.g., executive functioning [EF], effortful control) and parenting behavior, for example:
  - Maternal working memory has been associated with increased maternal negative reactivity in the presence of challenging child behaviors
  - Inconsistent parenting has been associated with multiple different aspects of parenting (e.g., expressions of negative affect and intrusiveness/insensitivity)
- However, research has only examined one aspect of self regulation and/or one aspect of parenting

The Current Study

- To address the limitations in past research, we examined longitudinal associations between two aspects of maternal EF and two aspects of parenting using structural equation modeling (SEM)
  - Maternal working memory was expected to predict fewer negative parenting behaviors
  - Maternal inhibition was expected to predict more negative parenting behaviors

Methods

- To assess maternal working memory, mothers completed the following measures at four months postpartum:
  - Verbal Fluency task of the Delis-Kaplan Executive Function System (D-KEFS)4
  - Letter-Number Sequence task of the Wechsler Adult Intelligence Scale (WAIS-IV)5
- To assess maternal inhibition, mothers completed the following measure at four months postpartum:
  - Color-Word Interference task of the Delis-Kaplan Executive Function System (D-KEFS)6
- At ten months postpartum, mother-infant dyads participated in a series of structured tasks including a free play task in which no toys were provided
  - Videos of the interaction were later coded using the Parent Child Early Relational Assessment (PCERA)7 coding scheme
  - Coders rated maternal use of 13 parenting behaviors
  - 5 behaviors comprised aspects of negative affect and behavior (e.g., angry, hostile tone of voice, criticism of child; ICC = .70)
  - 8 behaviors comprised aspects of intrusiveness and insensitivity (e.g., rigid parenting style, inconsistent parenting; ICC = .77)

Discussion

- In addition, the following constructs were included as covariates:
  - Infant negative affect (measured at four and ten months postpartum via the Infant Behavior Questionnaire Revised [IBQ-R]8)
  - Contextual stressors (measured at four months postpartum via demographics questionnaires and the Structured Clinical Interview for the DSM-IV-TR [SCID]9)

Results

- Infant negative affect and other contextual stressors (e.g., cumulative risk, home chaos) were included as covariates
- Results indicated a well fitting model
  - X² (85) = 81.04, p > .05; CFI = .95; SRMR = .05; RMSEA = .00 (00 - .05)
  - The results of this study suggest that the various aspects of maternal EF have independent contributions on the development of later parenting behaviors
  - Findings also suggest that the efficacy of parenting interventions might be enhanced by targeting specific maternal EF skills
  - Future studies could examine additional aspects of self regulation and parenting to further assess the relationships between these two constructs.

References


Participants:
- 120 mothers and their infants participated in a larger longitudinal study
- 82 dyads completed the four month and ten month visits
- 54.5% of infants were female; 45.5% were male
- Families were predominately Caucasian (69.4%), with 11.6% self-identifying as Hispanic and 13.2% as African American
- Mean maternal age was 27.82 (SD = 6.32, range = 17-42)
- 57.3% of the families were economically stressed, with 23.6% of families at or below the poverty line

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