Delineating how Maternal Executive Functions Impact Discipline Strategies: Implications for Children's School Readiness

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BACKGROUND

- Parenting is a cognitively demanding task, and emerging conceptual frameworks have turned to executive functions as a potential explanatory variable in determinants of parenting research (Crandall et al., 2015).
- Working memory is a cognitive process that serves to facilitate goal-oriented behavior through maintaining information that is no longer perceptually present in consciousness and allowing for active manipulation of that information (Engle & Kane, 2004).
- Inhibitory control plays a critical role in an individual’s ability to self-regulate in challenging situations (Barkley, 1997).
- Set-shifting includes changing perspectives and adjusting thoughts or behaviors in response to changing demands (Miyake et al., 2000).
- These cognitive processes may be especially important within a discipline framework, as they have the potential to facilitate more constructive practices and inhibit harsher, more reactive forms of discipline.
- Maternal discipline practices in turn have implications for young children’s adjustment, specifically as they transition to school settings where independent self-regulation becomes an increasingly stage-salient task.

AIMS

Examine how maternal executive functions may influence parental discipline practices, and how these discipline practices in turn are associated with children’s school readiness in the early elementary years.

Hypothesis 1: Maternal executive function variables (working memory, inhibitory control, and set-shifting) would be positively associated with maternal scaffolding discipline practices, and negatively associated with maternal use of harsh discipline.

Hypothesis 2: Maternal discipline practices would be associated with children’s school readiness outcomes, such that scaffolding discipline would lead to better adjustment outcomes, and harsh discipline would lead to more negative adjustment outcomes.

METHODS

Participants: 235 families: mothers and their 5 year old children (55% female).
- Median family income ranged from $0 - $162,000 (M = $35,200)
  - European American (43%)
  - African American (48%)
  - Latino (16%)

Procedure: Families visited the laboratory at University of Rochester for two waves of data collection spaced one year apart.

Table 1. Means, deviations, and bivariate correlations of primary study variables

RESULTS & DISCUSSION

➢ Inhibitory control was significantly associated with mother’s use of scaffolding discipline, β = -.18, B = -.23 (SE = .09), p = .02, even when family income was included in the model.

➢ Scaffolding discipline was significantly associated with children’s school engagement, β = .20, B = .04 (SE = .03), p = .01, and the teacher child relationship, β = .22, B = .08 (SE = .03), p = .005.

➢ Harsh discipline was significantly associated with teacher-child relationships, β = -.17, B = -.06 (SE = .03), p = .03.

Discussion:
- All three domains of the executive suite were associated with scaffolding discipline at the bivariate level, suggesting that mothers may utilize a broad array of cognitive capacities towards enacting planful, explanatory, and effortful discipline practices.
- Moving towards specificity, it appears that maternal inhibitory control may be the most predominant cognitive skill for maintaining sensitivity in a discipline context.

➢ More scaffolding discipline provided at age 5 led to higher levels of school engagement and more positive teacher-child relationships at age 6.

➢ Scaffolding discipline may facilitate independent problem-solving skills in children, or potentially improve social skills.

➢ Higher levels of harsh discipline at age 5 were associated with more negative teacher-child relationships at age 6.