

Mediating Factors of Family Risk and Parent-Child Interaction Quality

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Introduction

Everyday parent-child interaction (PCI) supports children's early development in foundational ways. PCI can be impacted by several factors. Parenting as a Teen, Living Alone, on Public Assistance, Limited Education, and neither working nor in school are five risk factors that are often associated with greater parenting stress and family conflict (Steele et al., 2016; Pereira et al., 2012; Melançon et al., 2019). Medium and High risk families are defined as having three or more of the five factors listed. 57% of the Early Head Start Research and Evaluation Project sample ($N = 3001$) are categorized as medium or high risk (Kopack-Klein, Kemmerer, West, & Lim, 2016). Stress and family conflict are associated with less positive parenting behaviors (Mak et al., 2020) and more delays in children's development (Casalin et al., 2014).

The purpose of this study is to examine whether parenting stress or family conflict, reported by parents at 14, 24, and 36 months of age, are mediating variables between baseline family risk and reduced parent-child interaction (PCI) quality at 36 months.

Methods

Sample

For our analyses, we used extant data from the Early Head Start Research and Evaluation Project (EHSREP, $N = 3001$, PICCOLO data $n = 1348$). 51% of our population was male, and 49% of our population was female, ranging in age from 14-36 months.

Analyses

We conducted linear regressions to separately analyze the pathways of family risk \rightarrow parenting stress \rightarrow PCI and family risk \rightarrow family conflict \rightarrow PCI. We then used mediation analyses to determine if parenting stress or family conflict were mediators between risk and parenting, that is, whether stress or conflict accounted for all or part of the association between family risk and poor PCI. A Sobel test was used *post hoc* to determine statistical significance of the proposed mediation pathways.

Variables & Measures

Parenting stress (PS): Parent self-report scores on the *Parenting Stress Index (PSI)* were taken at 14, 24, & 36 months and averaged across ages for this variable. Higher scores indicate greater levels of stress (Abidin 1995).

Family conflict (FC): Self report scores were taken on the Family Environment Scale – Conflict (FES-C) at 14, 24, and 36 months and averaged together for this study. This variable indicates the extent to which open expressions of anger and aggression arise in the family (Moos, 1974).

Family risk (FR): Family risk is a combined variable created for the EHSREP study by tallying parental self-report at intake of five specific risks: Below age 20 at child's birth, living alone, receiving public assistance, not graduating from high school, and neither working nor in school.

PCI: Interactions were observed and coded by trained persons from 10-minute observations at age 36 months using *Parents Interactions with Children: Checklist of Observations (PICCOLO)* which measures developmentally supportive parenting behaviors during play interactions with young children (Roggman et al., 2013).

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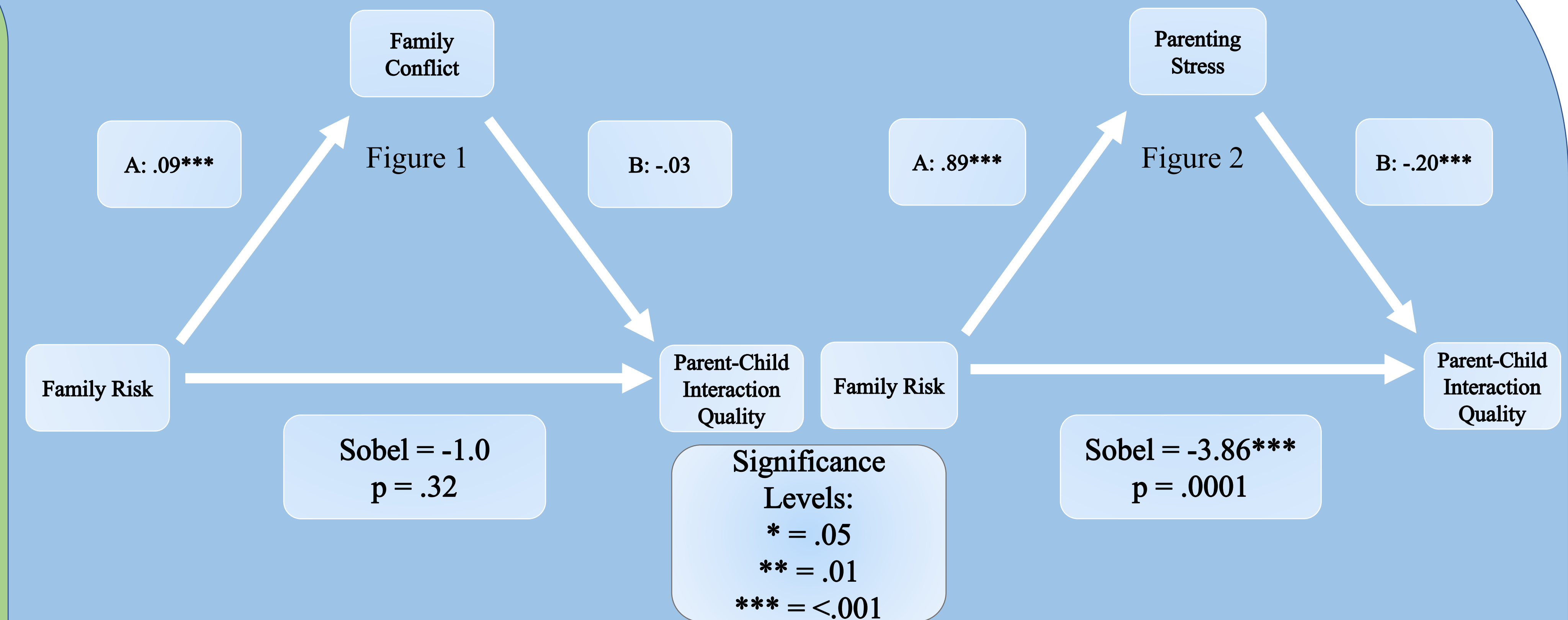
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Results



The Regression analyses for family conflict revealed a connection between higher family risk and lower PCI scores. Mediation analysis revealed that conflict scores were not a mediating variable between family risk and PCI scores at 36 months. We can conclude that family risk contributes to an increase in conflict in the home, but the conflict caused by family risk does not lead to decreased parent-child interaction quality.

The Regression analyses for parenting stress revealed a connection between family risk and PCI. Mediation analysis revealed a connection between family risk and parent stress, and between parent stress and PCI scores. The Sobel test revealed that parental stress accounts for this association. Family risk contributes to greater levels of parent stress, which in turn contributes to decreased PCI scores at 36 months.

Key Findings

- Family risk is associated with both parent stress and family conflict in the first three years.
- Parent stress in the first three years mediates the association between family risk and positive PCI at 36 months.
- Family conflict, however, does not mediate between family risk and PCI at 36 months.
- High and low family risk groups differed significantly in family conflict and family stress. Medium and high-risk groups did not differ.

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