

# Momentary Effects of Parental Stress on Parenting and Children's Self-Regulation

Kaitlyn Goslinga, Megan Knobloch, Francesca Maresma, Annemarie Wilson, Mikayla Rosenwasser, Longfeng Li, Ph.D.

Authorship Statement: Authorship order follows alphabetical arrangement by surname. Authors whose names are underscored contributed equally to this work.

## Introduction

Parental stress plays a critical role in shaping parenting behaviors and children's self-regulation (Blair, 2010; Duran et al., 2020). However, most prior studies have relied on cross-sectional designs and overlooked how everyday, temporary stressors influence parents and children, particularly within higher-risk families.

**Aim:** To address this gap and inform prevention efforts, we examined how temporary fluctuations in parental stress shaped parents' immediate interactions with their preschool-aged children and children's momentary self-regulation.

**Hypothesis:** We hypothesized that greater parental stress would be negatively associated with parenting behaviors and children's self-regulation.

## Methods

- Participants were 15 mother-child dyads from higher-risk families in Florida with children aged 2.5 to 3.5 years.
- Parents completed brief ecological momentary assessment (EMA) surveys three times per day (morning, afternoon, evening) for 21 days.
- EMA surveys assessed parents' momentary stress levels ("What is your stress level right now?" Scores ranged between 1-100), parenting behaviors ("Since the last survey, you have gotten along well with your child." Scores ranged between 1-7), and children's self-regulation of emotion (e.g., "My child had strong mood swings."), behavior (e.g., "My child followed a task through."), and attention (e.g., "My child concentrated easily." Scores ranged between 1-7; Ludwig et al., 2016).
- Multilevel models were used to examine within-dyad effects of parental stress on parenting behaviors and children's self-regulation.
- IRB #STUDY00006045. Parents provide informed consent prior to participation. The detailed study procedure is shown in the flowchart below.

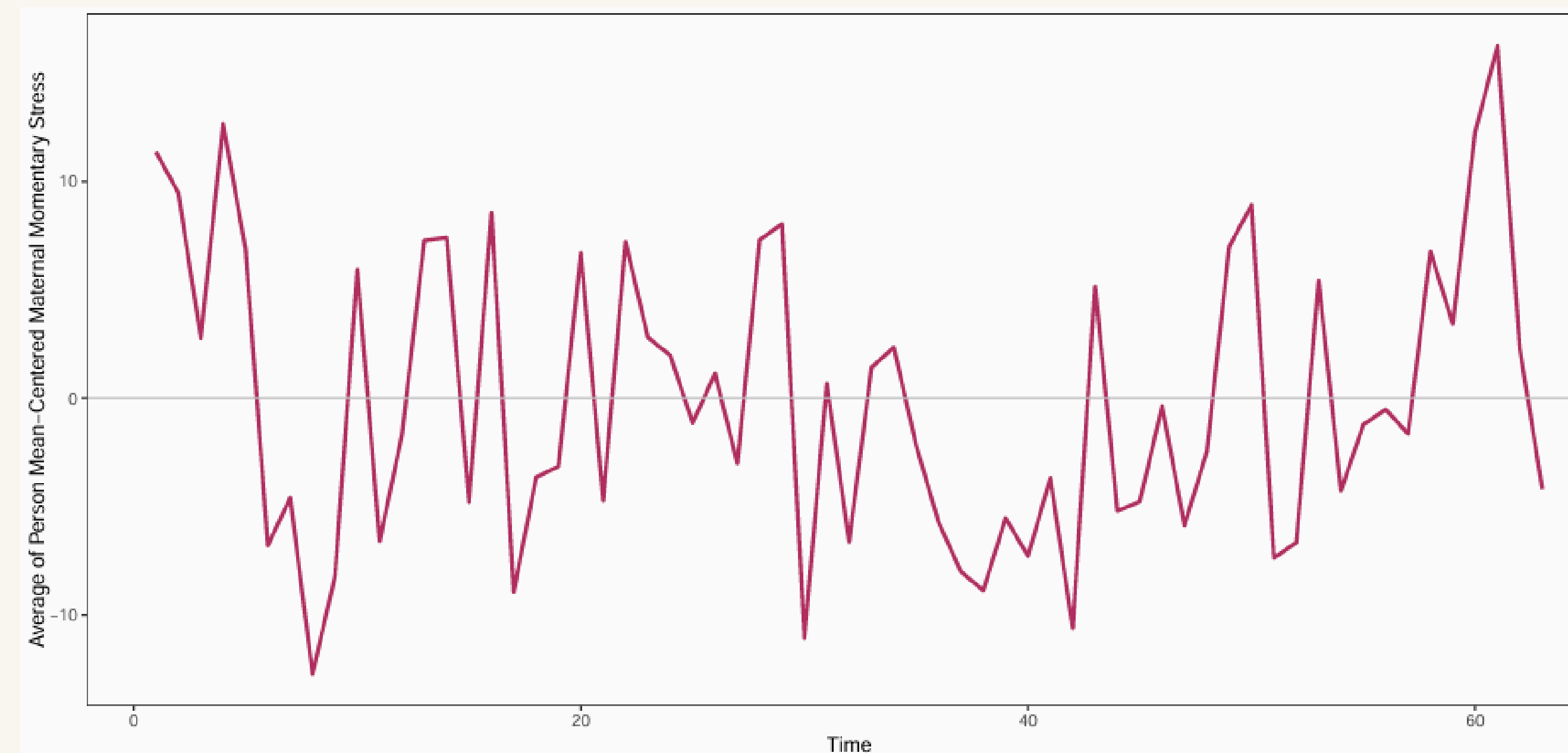
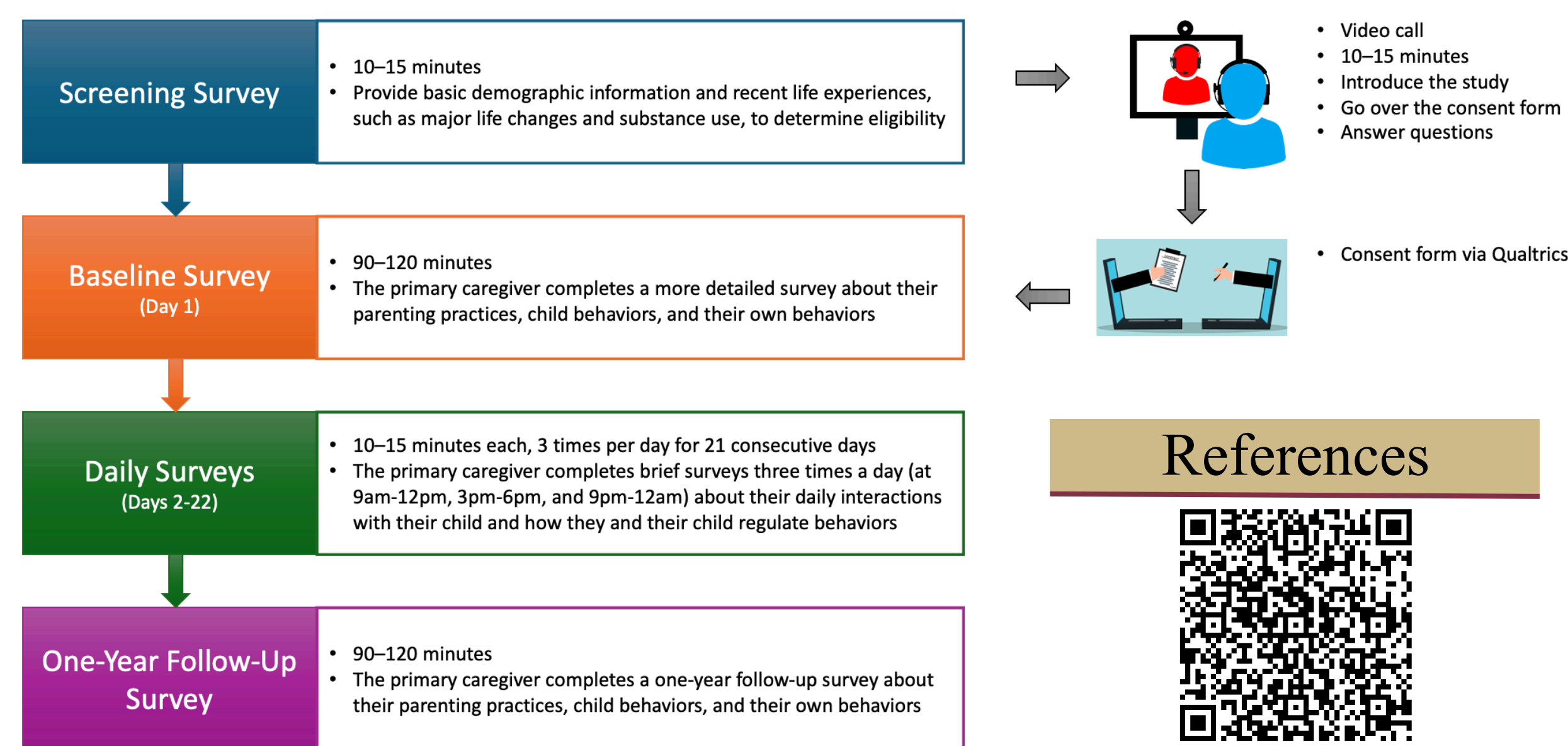


Figure 1. Momentary Parental Stress Across 21 Days

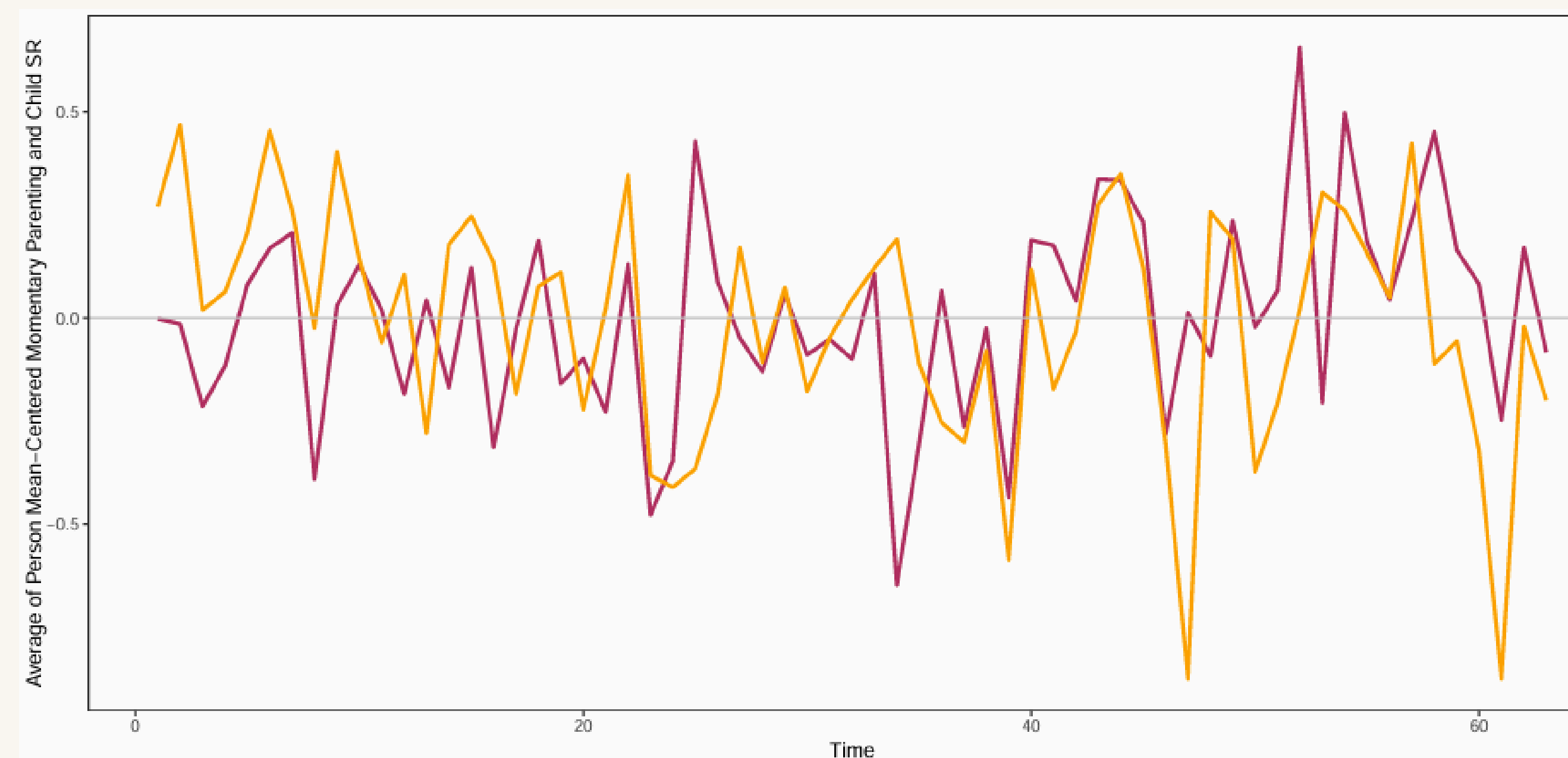


Figure 2. Orange Line: Momentary Parenting Behavior Across 21 Days  
Maroon Line: Momentary Children's Self-Regulation Across 21 Days

The Effects of Parental Stress on Parenting Behavior and Children's Self-Regulation

	b	SE	t	p
<b>Parenting Behavior</b>				
Momentary Parental Stress	-0.007	0.002	-3.662	<.001
Average Parental Stress	-0.014	0.009	-1.543	0.147
<b>Children's Self-Regulation</b>				
Momentary Parental Stress	-0.007	0.001	-4.820	<.001
Average Parental Stress	-0.036	0.007	-4.926	<.001

Table 1. Effects of Parental Stress on Parenting Behavior and Children's Self-Regulation

## Results

- As shown in Figures 1 and 2, parental stress, parenting behavior, and children's self-regulation showed considerable fluctuations around their average levels across 21 days.
- Momentary parental stress was significantly and negatively associated with parenting behavior and children's self-regulation ( $p < .001$ ; see Table 1).
- Therefore, when a mother experienced greater stress at a moment, compared to her usual level, she was less likely to report getting along well with her child and more likely to report difficulties in her child's self-regulation.
- Average parental stress (mean scores across assessments over 21 days) was also negatively associated with children's momentary self-regulation ( $p < .001$ ).
- Thus, mothers who experienced greater stress, compared to other mothers, were more likely to report difficulties in their children's self-regulation.

## Discussion, Conclusion, and Implication

- Findings highlight the close, moment-to-moment links between parental stress, parenting behaviors, and children's self-regulation in daily life, particularly within higher-risk families.
- Higher levels of parental stress were associated with poorer parenting behaviors and more difficulties in children's self-regulation, suggesting that even temporary increases in stress can influence parents and children.
- This study emphasizes the importance of targeting daily parental stress in prevention and intervention programs aimed at strengthening parenting practices and promoting self-regulation in young children.
- Supporting parents in managing daily stress may improve both immediate parent-child interactions and long-term developmental outcomes.
- Caution is needed when interpreting the current findings, as the sample size is relatively small and data collection is still ongoing.

## Acknowledgements

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