



# Parental Stress, Parent-Child Sleep Interactions, and Children's Sleep Quality



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## INTRODUCTION

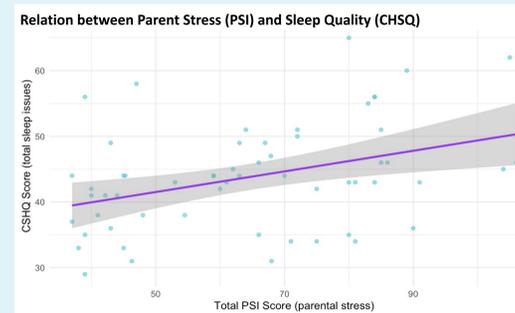
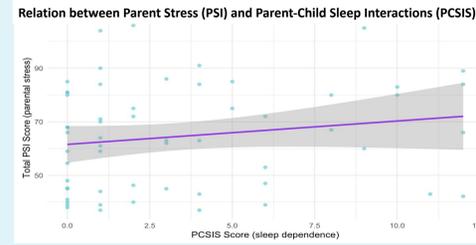
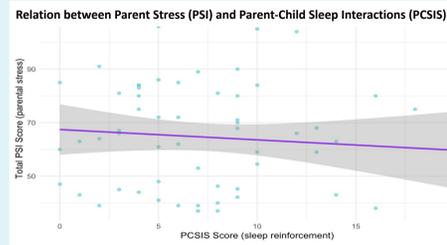
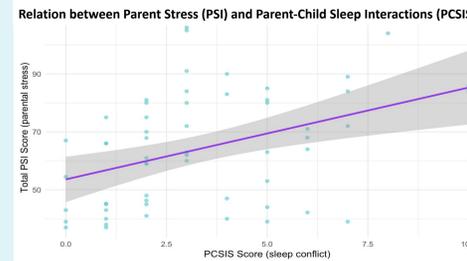
- **Sleep** is crucial for children's emotional and cognitive development<sup>1, 2</sup>.
- The quality of sleep is linked to behavior, executive function, and academic performance<sup>3</sup>.
- **Children's sleep quality** is influenced by duration, timing, and subjective experiences (e.g., ease of falling asleep)<sup>4</sup>.
- **Parenting stress** affects **parent-child interactions** (e.g., singing songs, reading stories, imaginary games, playing with toys inside)<sup>5</sup>.
- **Interactions before bed** (e.g., parent-child routines, parental sensitivity, and reduced screen time) contribute to better sleep outcomes<sup>6</sup>.
- Links between sleep habits and sleep problems in preschoolers, and parental stress and parent-child routines remain underexplored.
- This study seeks to assess relations between parental stress, parent-child interactions before bed, and sleep quality in preschool-aged children.
- **Hypotheses:**
  - Greater parenting stress will be positively correlated with sleep difficulties in children.
  - Parent-child sleep routine difficulties will be positively associated with sleep difficulties in children.

## METHODS

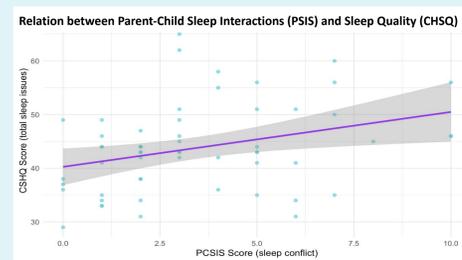
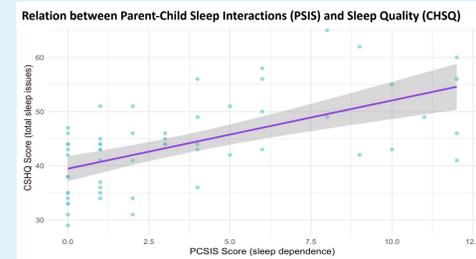
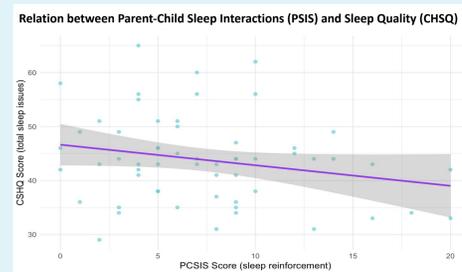
- Participants**
- 68 children (3 to 5.5 years, M = 3.76, SD = 0.63, 31 females, 37 males) participated in the study.
- Measures** primary caregivers completed:
- **Parenting Stress Index (PSI):**
    - We used the **total score** subscale to measure parental stress.
  - **Parent-Child Sleep Interactions Scale (PC SIS):**
    - We used the **Sleep Dependence** (difficulty going to sleep without parent), **Sleep Conflict** (conflict and child noncompliance surrounding sleep), and **Sleep Reinforcement** (reassurance of child sleep behaviors) subscales.
  - **Children's Sleep Habits Questionnaire-Short Form (CSHQ-SF):**
    - We used the **total score** subscale to measure children's sleep difficulties (e.g., falling asleep, daytime sleepiness).
- Analyses**
- Linear regression analyses (5 for CSHQ and PSI, 3 for CSHQ and PC SIS, 3 for PSI and PC SIS), controlling for age and sex, were run to assess associations among these measures.

## RESULTS

**Greater parental stress was related to increased childhood sleep conflict issues (p=0.001).**



**Greater parental stress was related to increased sleep problems (p=0.004).**



**More negative Parent-Child Sleep interactions (i.e., increased sleep dependence and conflict) are related to increased sleep problems (p<0.001 and p=0.007, respectively).**

## RESULTS

- All significant findings survived FDR correction for multiple comparisons.

	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
<b>CSHQ child sleep difficulties</b>				
PSI Total Stress	0.15	0.05	2.99	0.004*
PC SIS Sleep Dependence	1.18	0.21	5.47	<0.001**
PC SIS Sleep Conflict	1.03	0.37	2.77	0.007*
PC SIS Sleep Reinforcement	-0.26	0.2	-1.27	0.206
<b>PC SIS Sleep Dependence</b>				
PSI Total Stress	0.87	0.68	1.27	0.206
<b>PC SIS Sleep Conflict</b>				
PSI Total Stress	3.24	0.93	3.46	0.001*
<b>PC SIS Sleep Reinforcement</b>				
PSI Total Stress	-0.39	0.54	-0.73	0.466

\* = p<0.05, \*\* = p<0.001

## DISCUSSION

- **Our findings support our hypothesis** that parental stress is associated with increased child sleep difficulties.
- **Higher levels of parental stress** were linked to:
  - Greater parent-child conflict at bedtime.
  - More pronounced sleep problems in children.
- **Stress may indirectly impact children's sleep** by contributing to more negative parent-child interactions during bedtime routines.
- **Both sleep dependence and bedtime conflict** were associated with increased child sleep difficulties, highlighting the importance of a supportive bedtime environment.
- **The quality of the parent-child relationship** plays a key role in promoting healthy sleep in children.
- **Disrupted sleep in children** can negatively affect behavioral regulation and executive functioning.
- **These findings underscore the need** to support parents in managing stress and fostering positive bedtime routines.

### Future Directions

- Investigate how parental stress may impact children's memory development **through the pathway of sleep disruption**, considering the vital role of sleep in **memory consolidation during early childhood**.

## REFERENCES

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## ACKNOWLEDGEMENTS

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