

Relations Between Stress, Sleep, and Parenting Style in Young Children: An Exploratory Analysis

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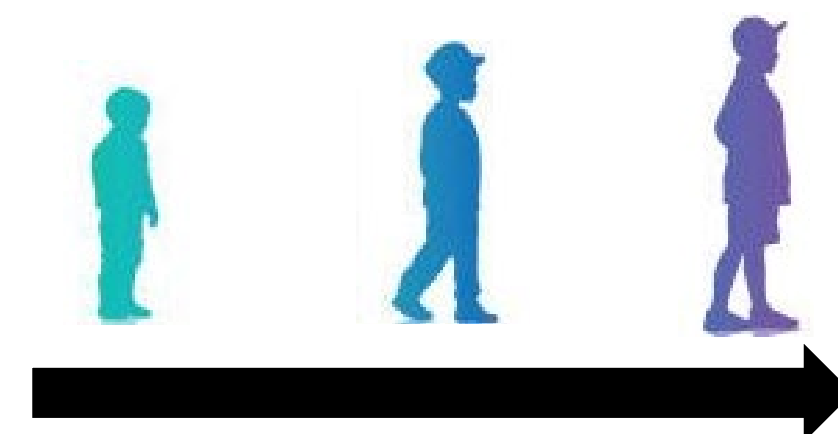
Introduction

- Adequate sleep is a critical component of healthy cognitive development during childhood¹.
- Studies in adults have shown relations between sleep and stress². Further research is required to understand the ways in which children's sleep may be impacted by stress.
- Parenting styles have differential relations to child outcomes³, with one study looking at the association between parenting style, parental distress, and children's sleep problems⁴.
- This study aims to examine the relationship between child-experienced stress, child sleep health, and parenting style.

Methods

Participants

- Participants were 85 children (47 females), 4-8 years (mean age at W1 = 5.27 years, SD = 1.07) who participated in an accelerated longitudinal study examining the development of episodic memory.



Measures

- STRESS:** Assessed via the Stressful Life Events Scale⁵ and Life Events Scale⁶. A Stressful Life Events (SLE) score was calculated for each question by combining the stressor experienced score and the severity indicated for each event⁷.
- SLEEP:** Assessed via the Children's Sleep Habits Questionnaire (CSHQ)⁸, which includes an overall sleep disturbance score as well as sub scores for 8 overarching sleep domains: bedtime resistance; sleep onset delay; sleep duration; sleep anxiety; night wakings; parasomnias; disordered breathing; and daytime sleepiness
- PARENTING:** Assessed using the Parenting Practices Questionnaire⁹ that measures three parenting styles: authoritative, authoritarian, and permissive.

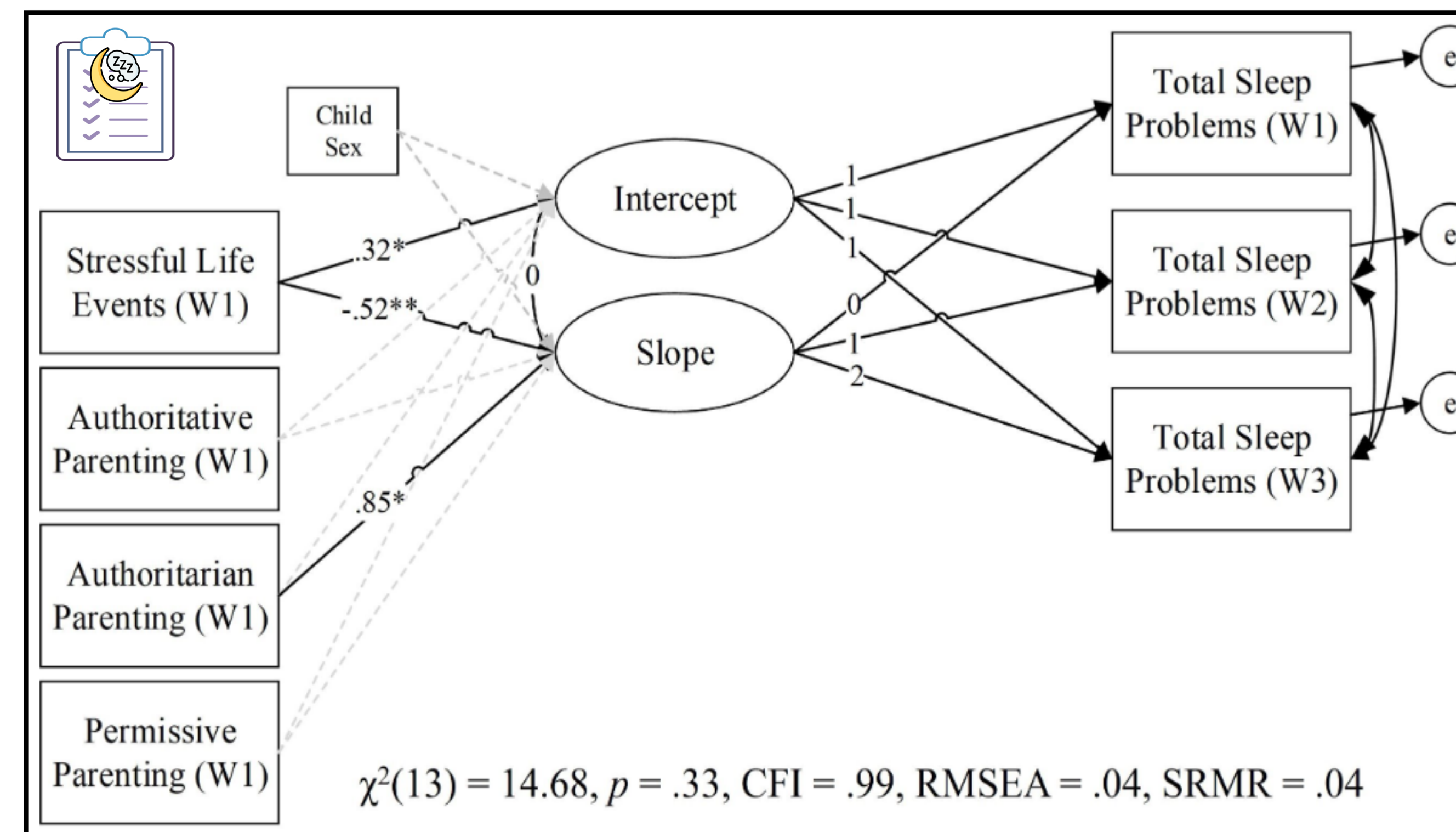


Analyses

- Structural Equation Modeling (SEM) was used in Mplus to examine the impact of SLE and Parenting on CSHQ scores over time with child sex as a covariate.
- Multigroup analyses were run to assess if models could use both cohorts combined or should be run between cohorts.

Results

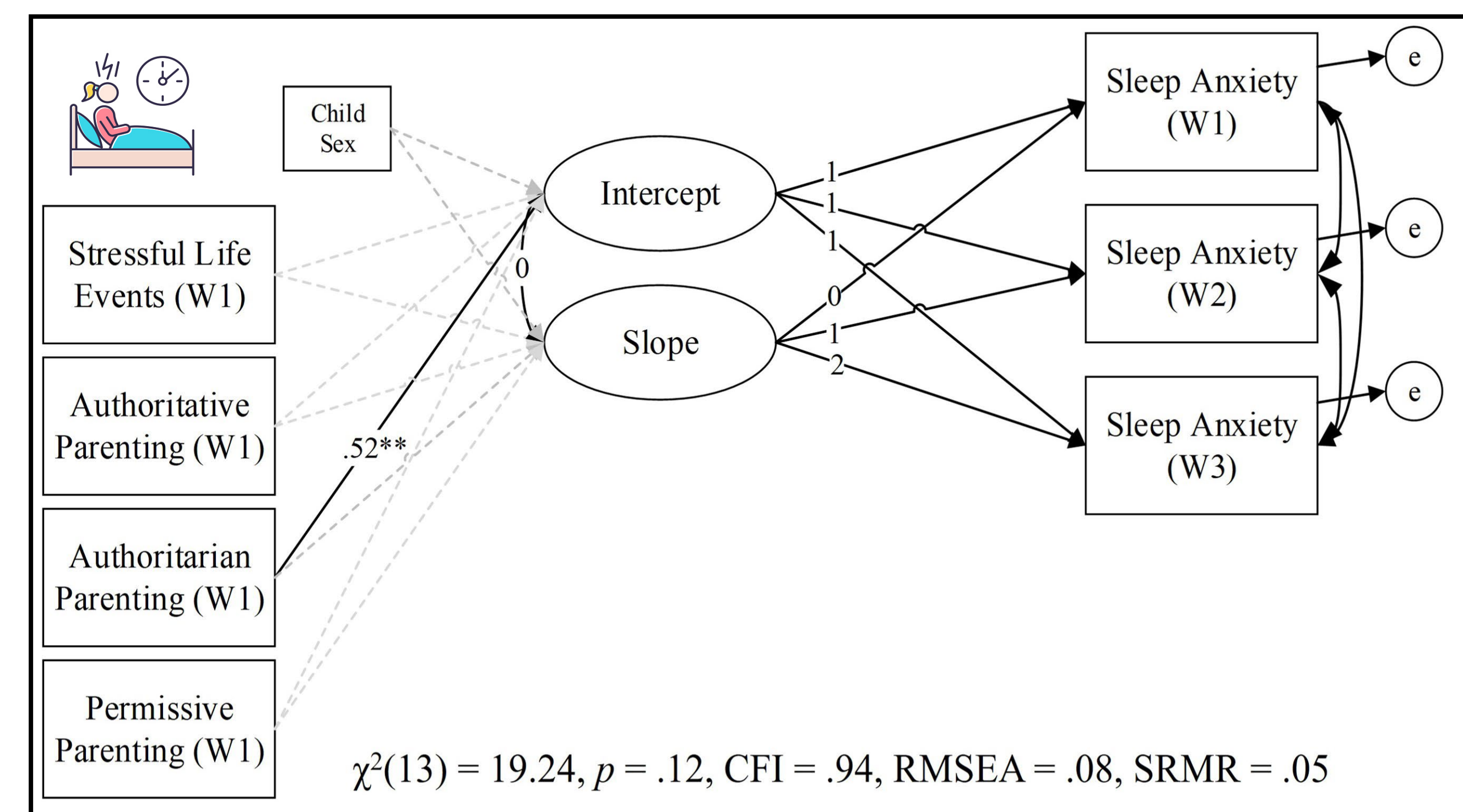
Total Sleep Problems (1)



- 2) SLE was positively associated with the intercept ($\beta = .42, p < .05$) and with slope 2 of sleep duration ($\beta = .76, p < .05$).

More SLE was related to higher initial levels of sleep duration problems but a slower increase over time from W2 to W3.

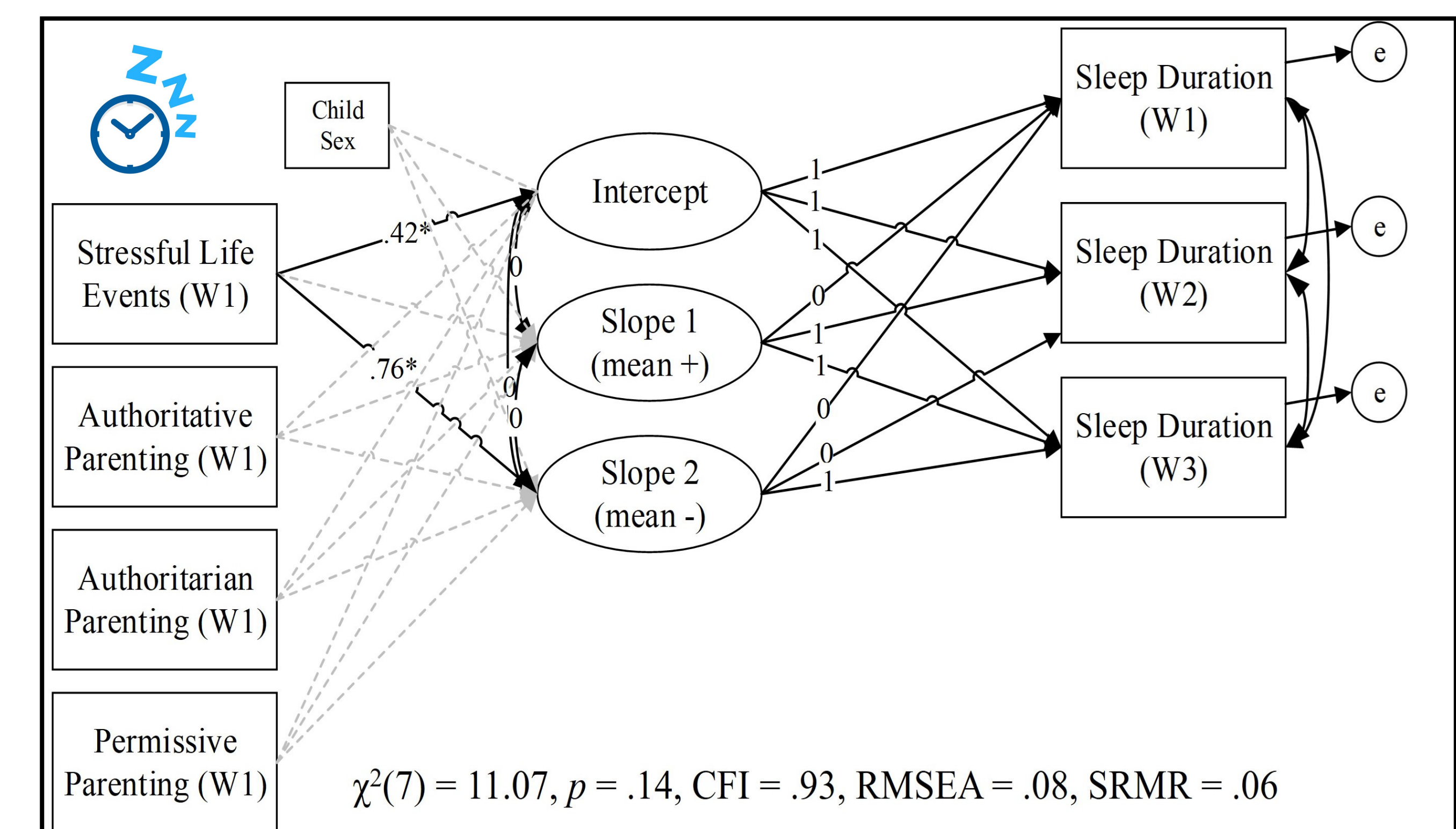
Sleep Anxiety (3)



- 1) SLE was positively associated with the intercept ($\beta = .32, p < .05$) and negatively associated with the slope of total sleep problems ($\beta = -.52, p < .01$). Authoritarian parenting was associated with the slope ($\beta = .85, p < .05$).

More SLE was related to higher initial levels of sleep problems, but slower increase over time. Higher levels of authoritarian parenting were related to greater increase in sleep problems over time.

Sleep Duration (2)



- 3) No significant associations between SLE and the intercept or slope of sleep anxiety. Authoritarian parenting was positively associated with the intercept of sleep anxiety ($\beta = .52, p < .01$), but not the slope (n.s.).

Higher levels of authoritarian parenting were related to higher initial levels of sleep anxiety.

Discussion & Takeaways

- Normative stress in childhood impacts sleep overall and also specific aspects of sleep.
- Parenting style may play a role in the relation between stress and sleep.
- Future studies should explore these associations in samples with different demographics (e.g. SES) known to impact both stress and sleep and also examine the potential for bidirectional relations between stress and sleep.

References

- Dutil, C. et al. (2018) *Sleep Medicine Reviews*, 42.
- Cartwright, R.D. & Wood, E. (1991) *Psychiatry Research*, 39.
- Baumrind, D. (1971) *Developmental Psychology Monograph*, 4.
- Tyler, D. et al. (2019) *Journal of Child and Family Studies*, 28.
- Williamson, D.E. et al. (2003) *Psychiatry Research*, 119.
- Egger, H.L. et al. (2006) *Journal of the American Academy of Child & Adolesc. Psychiatry*, 45.
- Botdorf, M. & Riggins, T. (2022)
- Owens, J.A. et al. (2000) *Journal of Developmental & Behavioral Pediatrics*, 21.
- Robinson, C.C. et al. (1995) *Psychological Reports*, 77.

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