

Associations Between Infant Self-Regulation and Socio-Emotional Development



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Introduction

- Infant temperament can predict later attention:
 - Irritable infants, who show low threshold for frustration, are more likely to develop attention problems¹.
 - Irritability and ADHD are also comorbid later in life².
 - Less easily soothable infants are also shown to develop attentional problems later in childhood³.
- It is unclear whether temperament as early as 4 months, including irritability and soothability, can predict later attention.
- The current study explores relations between infant irritability and soothability with later attentional development.

Methods

Participants

- 111 infants were recruited at the Child Development Lab at the University of Maryland. 91 infants were followed up at 2 years.



Materials

- Parents completed the:
 - **Infant Behavior Questionnaire (IBQ)** to rate infants' temperament at **4 months**.
 - Subscales used: Distress to Limitation (**Dlim**), Soothability (**Sooth**).
 - **Child Behavior Checklist (CBCL)** to rate children's behavioral problems at **28 months**.
 - Subscales used: Attention Problems (**ProbAttn**), ADHD.

Procedure

- Ran regression models to investigate associations between IBQ temperament subscales (Dlim & Sooth), and CBCL attention subscales (ProbAttn & ADHD).
- Controlled for sex and age as covariates in the models.
- Bonferroni correction was used to control for multiple tests.

Descriptive Statistics

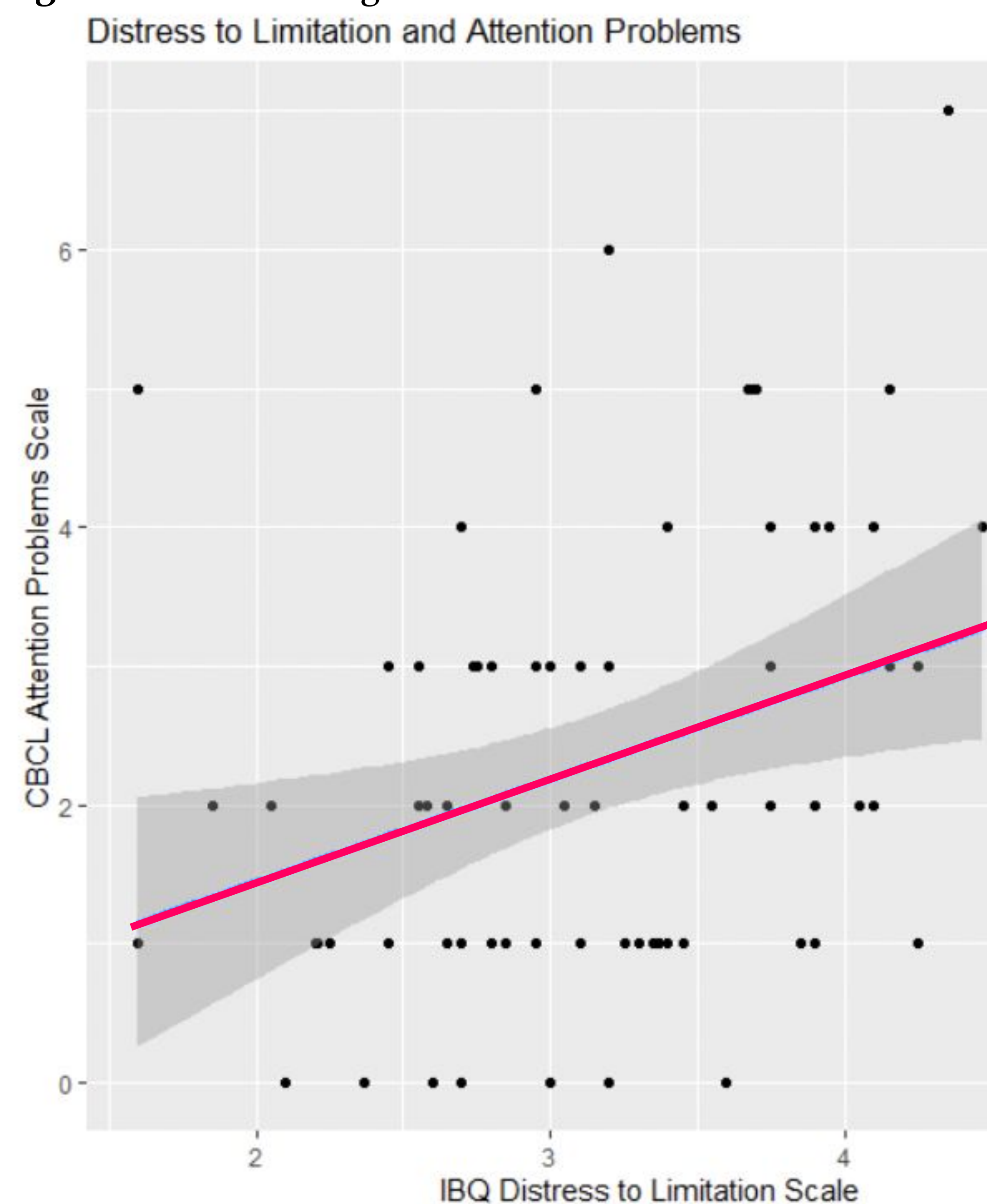
Table 1. Participant Demographic Information (n=91)

Sex (% female)	45.1%
Average Age (months) at Reactivity (M, SD)	4.21 (0.498)
Average Age (months) at CBCL	27.7 (6.22)
Child Race	
Caucasian	69.2%
Black or African American	4.4%
Asian	6.6%
More than one Race	19.8%
Child Ethnicity	
Hispanic or Latino	9.9%
Not Hispanic or Latino	90.1%

Results

$$r(89) = .00413, p < .01$$

Figure 1. Linear Regression



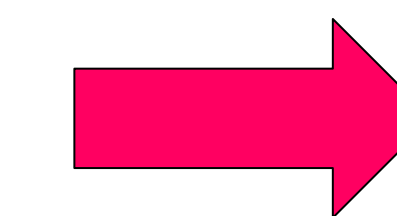
Discussion

Results

- Distress to limitation (infant fussiness, frustration) at 4 months is positively correlated with attention problems at 28 months.
- Infants who display fussing or crying while confined in a limiting position at 4 months are at an increased chance of exhibiting limited attention span at 28 months.
- Soothability at 4 months was not correlated with attention problems at 28 months.



Dlim @ 4m



ProbAttn @ 28m

Strengths and Limitations

- The current study addresses a gap in the literature by investigating the relations between infant temperament and attentional development.
- Limitations include shared methods variance between the variables and parent response bias.

Future Directions

- Explore relations between behavioral measures of irritability (e.g., using observational data of coded behavior from videos), at multiple timepoints.
- Use physiological measures (e.g., vagal regulation and heart rate variability).

References

