

Associations Between Positive Parenting, Cortical Thickness, & Depressive Symptoms in Young, Typically Developing Children Brooke H. Kohn*, Adriane Davis*, Zehua Cui, Mark Wehland, Tracy Riggins University of Maryland, College Park, Department of Psychology

INTRODUCTION

- parenting styles are predictive of greater anxious and depressive symptoms in children (Korom et al., 2021; Romero-Acosta et al., 2021)
- Positive parenting, parental monitoring, and responsiveness *may* be beneficial or protective against maladaptive
- Literature exploring associations between parenting and cortical thickness (CT) in 'normative' samples is sparse. than eight years of age (Farber et al., 2020).
- Few studies have examined the associations between young, pre-adolescent children.
- **OBJECTIVE:** The present study examined links between year-old children.

HYPOTHESES

symptoms and increased CT.

METHOD

- Parents completed the Childhood Depression Inventory (CDI) and the Parenting Styles and Dimensions Questionnaire (PSDQ).
- weighted structural scan was acquired & processed in FreeSurfer v5.1
- inferior parietal, caudal anterior cingulate, & pars triangularis.



Measurement model of positive parenting was saturated. Standardized factor loadings were above .51 (p < .001).

Participants (<i>N</i> = 69)	Mean (SD)
Age (in years)	6.35 (1.09)
Sex	38 Female : 31 M



All analyses controlled for age and sex.

 Positive parenting was related to bilateral precentral CT (β = .31, p= .01), RH pars triangularis CT (β = .32, p= .02), such that greater positive parenting was associated with thicker cortices.

• Positive parenting was related to CDI ($\beta = -.37$, p=.003), such that greater positive parenting was associated with lower depression scores. The ROIs were not related to children's CDI scores (p's>.23).

Warmth moderated the relation between CDI scores and CT of LH caudal anterior cingulate thickness (β = .36, p<.01) and RH caudal anterior cingulate ($\beta = .31, p<.01$). Autonomy granting moderated the relationship **between CDI scores and CT of** RH pars triangularis ($\beta =$.28, *p*<.05).

WHOLE-BRAIN ANALYSIS (Monte Carlo simulations

 Analyses revealed a negative association between **positive parenting and CT** of the right superior frontal gyrus and right rostral middle frontal gyrus. There were no associations with the left hemisphere or CDI.

DISCUSSION

• Positive parenting is associated with child depressive symptoms and CT.

• These findings extend previous literature to a younger age group, which may be relevant to neurodevelopmental trajectories of CT (Shaw et al., 2008).

Opposite effects found between ROI and whole-brain analysis may be driven by the differing rates of maturation in different areas of the brain.

Future analyses should explore these associations in children with clinically significant depression and should utilize observational assessment of positive parenting.



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