



Differential Pathways from Hostile Parenting to Child Psychopathology: Physiological and Emotion Regulation

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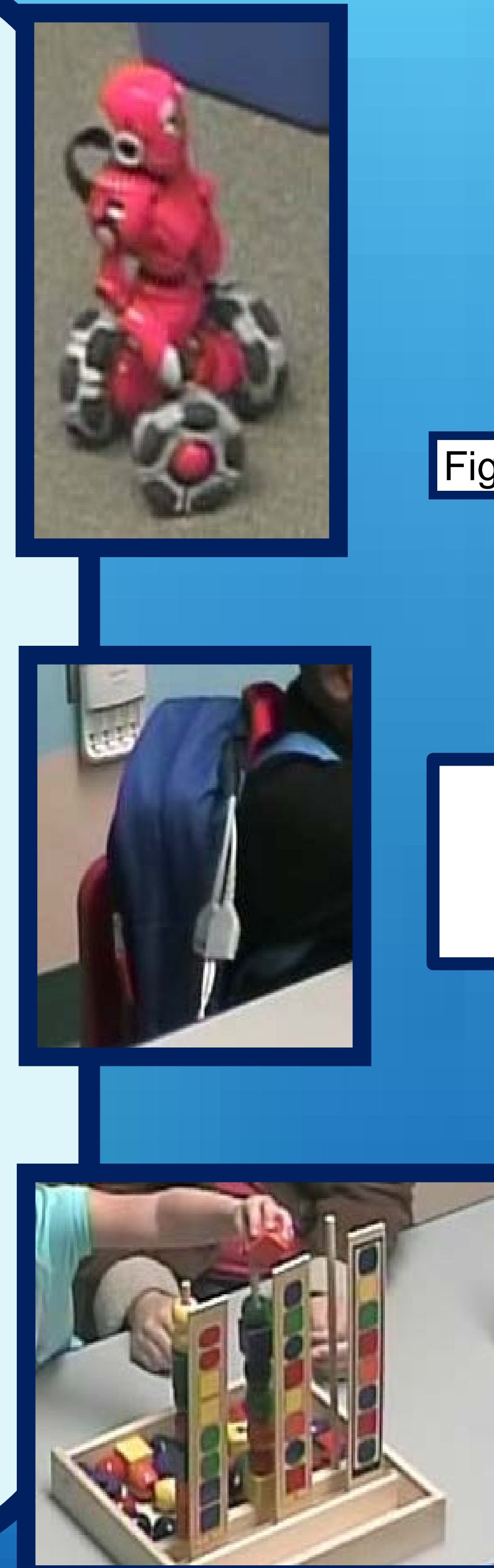


Background

- Self-regulation, the capacity to modulate responses to challenge, forms a building block for the development of psychopathology. Deficits in managing emotions have been implicated in depression, anxiety, externalizing behaviors, and social problems (Aldao, Nolen-Hoeksema, & Schweizer, 2010).
- Furthermore, physiological regulation – a key substrate of emotion management – has been itself directly associated with maladjustment (Hinnant & El-Sheikh, 2009).
- However, early life adversity can undermine these regulatory capacities.
- Hostile parenting, ranging from subtle expressions of resentment and accumulated anger to outright emotional abuse, is a pernicious threat to child development (Berzenski & Yates, 2010).
- While evidence suggests self-regulation mediates the link between negative parenting and child pathology (Maughan & Cicchetti, 2002), the specific contributions of physiology and emotion regulation have yet to be disentangled.
- Thus, this study evaluated a series of multiple-mediation models from hostile parenting (age four) to child pathology (age eight) through both physiological and emotion regulation (age six).

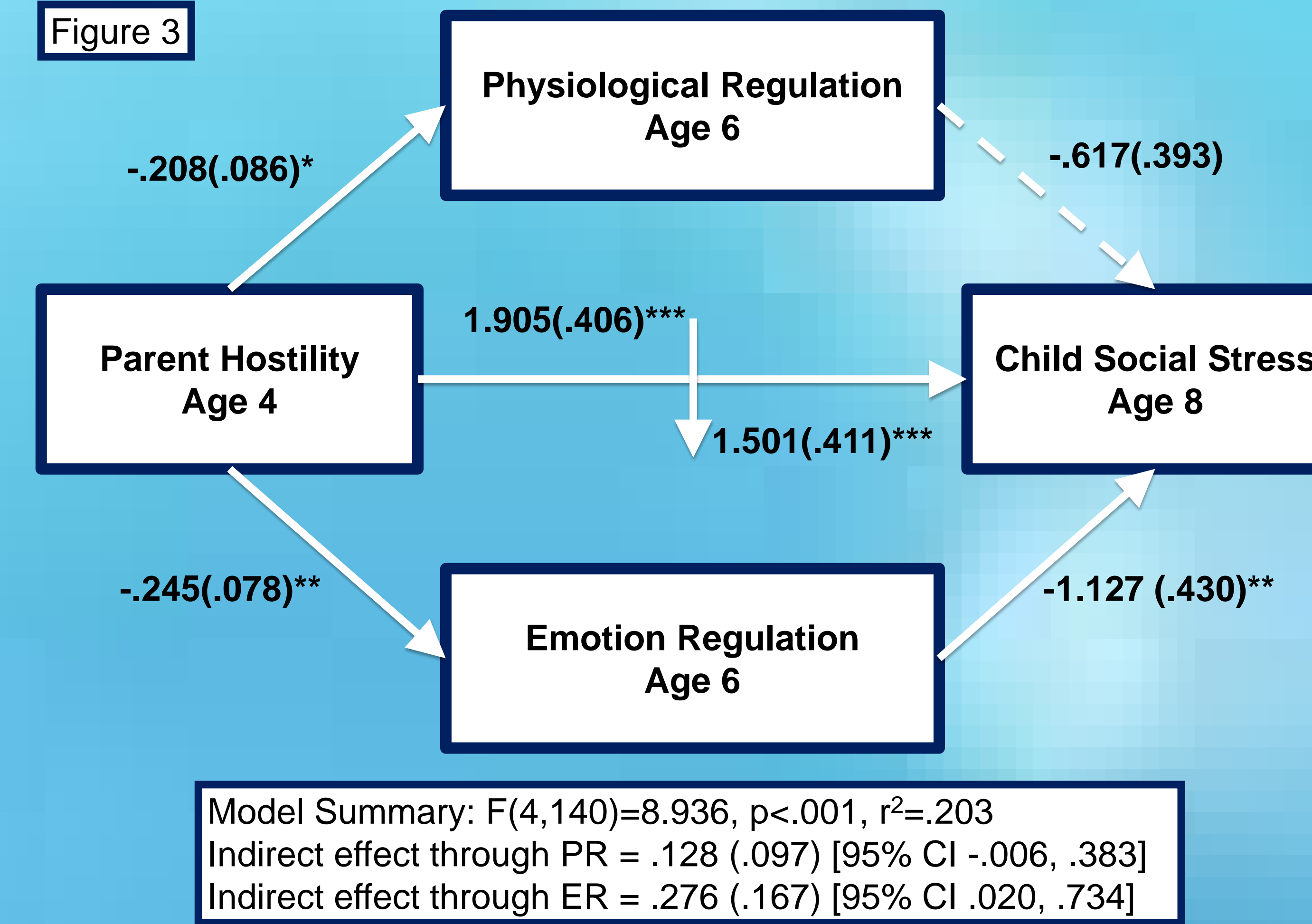
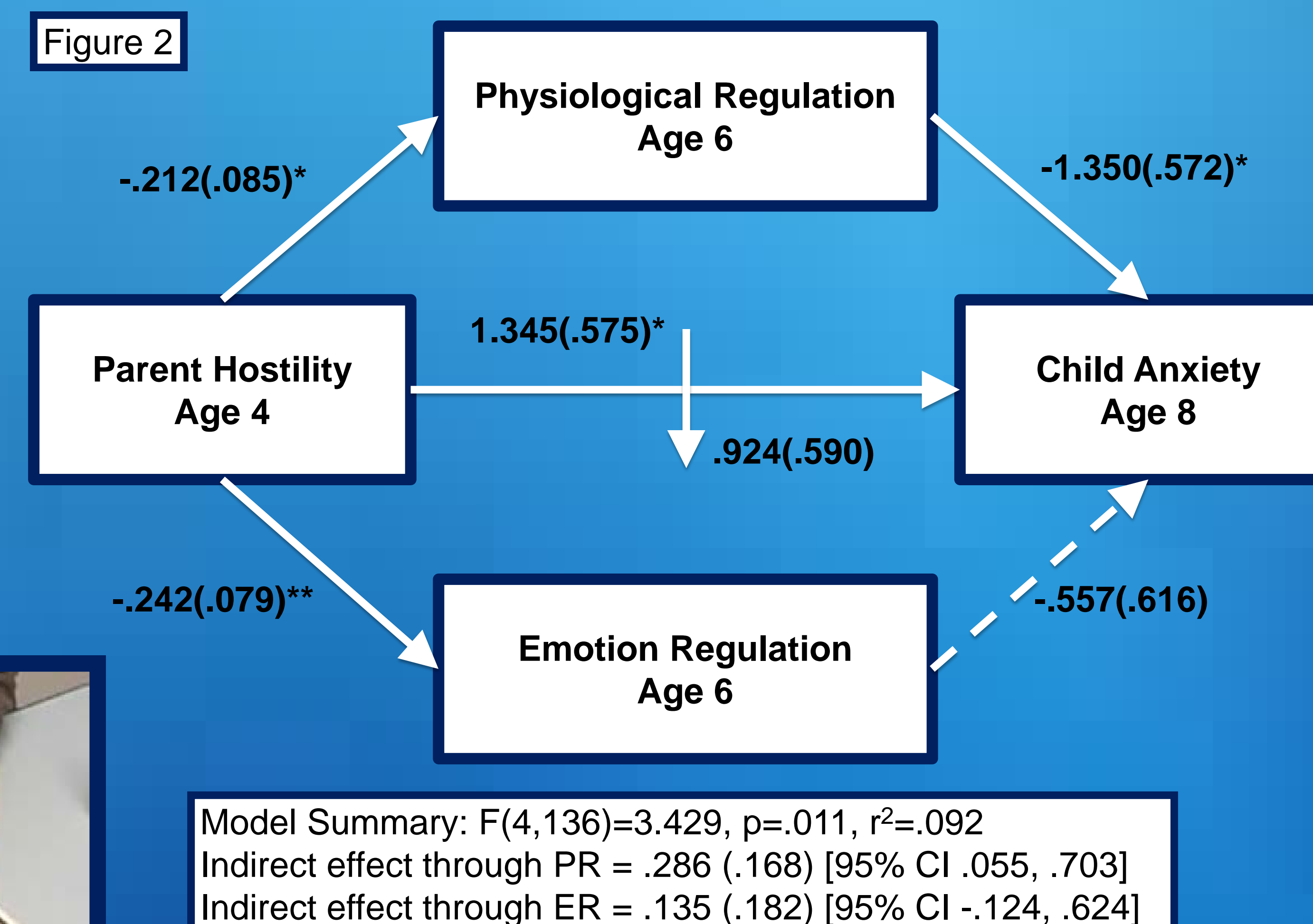
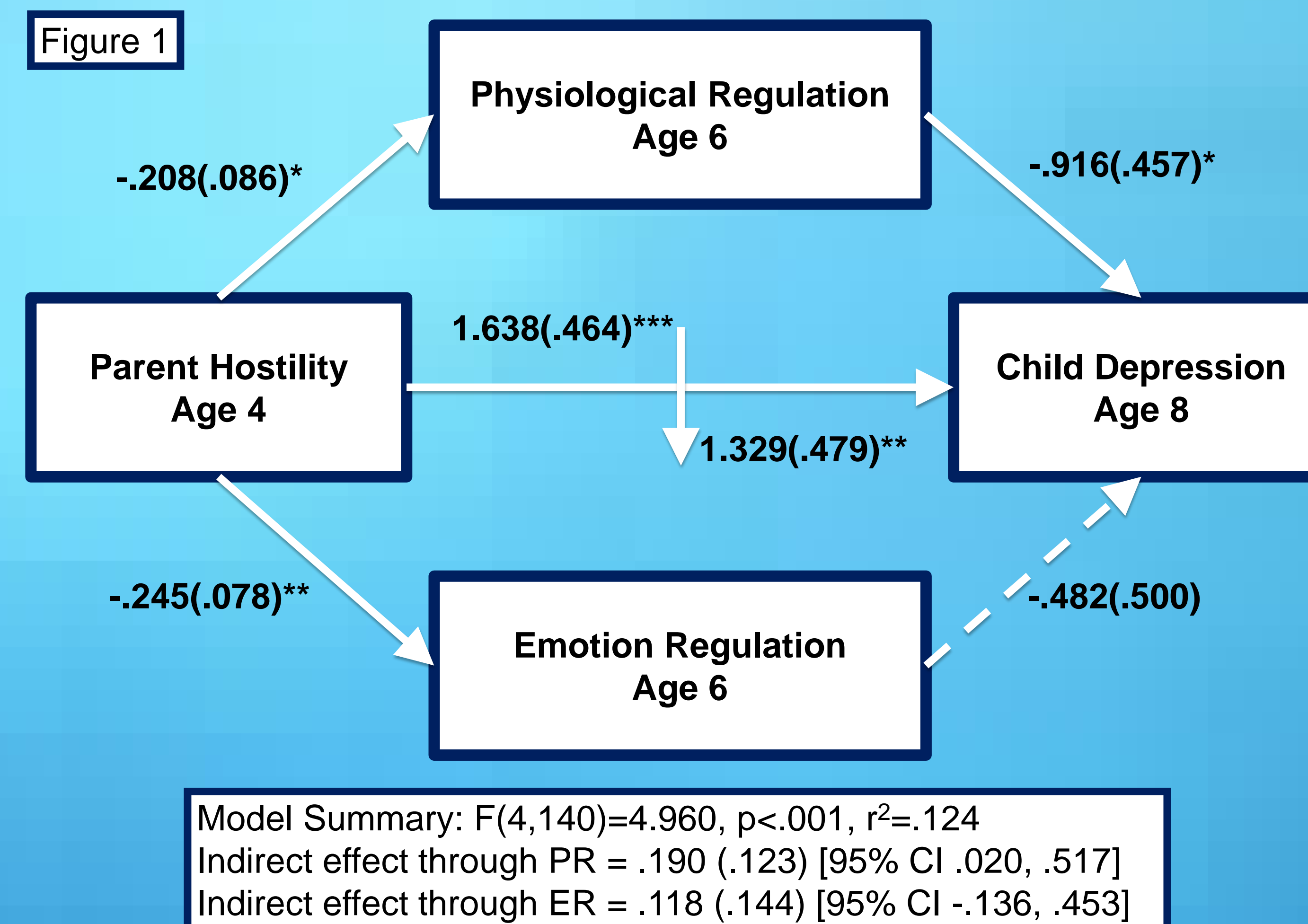
Method

- Participants were part of a longitudinal study following 250 ethnically diverse children annually from ages 4-8. Data in this report were a subsample of 145 children (53.8% male) and their primary caregivers (93.8% biological moms).
- Hostile parenting (overt anger toward or rejecting of the child) was coded on a 1 (low) to 7 (high) scale during a color-shape matching teaching task at age four (Block & Block, 1980; ICC=.751).
- Regulation was assessed during a delay of gratification task at age six, in which children waited their turn to play with an attractive remote-control robot.
- Physiological regulation was indexed by respiratory sinus arrhythmia (RSA). RSA is a non-invasive measure of cardiac functioning and the specific physiological marker most closely associated with emotion regulation.
- Emotion regulation was measured by the duration of negative affect displayed during the task, coded in 10-second intervals (ICC=.784).
- Pathological outcomes were assessed by child self-report on the Behavioral Assessment System for Children (BASC-2; Reynolds & Kamphaus, 2004) at age eight.



Results

- Multiple-mediation models, controlling for child sex, compared the strength of physiological and emotion regulation as explanatory pathways from hostile parenting to child depression, anxiety, social stress, and inattention/hyperactivity.
- In all models, **hostile parenting evidenced an initial direct effect on child psychopathology**, as well as significant associations with both types of regulation.
- Although **both physiological and emotion regulation were related to each type of child pathology at the bivariate level** (Table 1), comparing these mediators in the same model revealed differential explanatory paths.



- There were significant indirect effects of hostile parenting on child depression (Figure 1) and anxiety (Figure 2) through physiological regulation, but neither indirect effect through emotion regulation was significant.
- In contrast, for child social stress, there was a significant indirect effect of hostile parenting through emotion regulation, but no indirect effect through physiological regulation (Figure 3).
- Finally, for child inattention/hyperactivity, neither mediation pathway was significant (Figure 4).

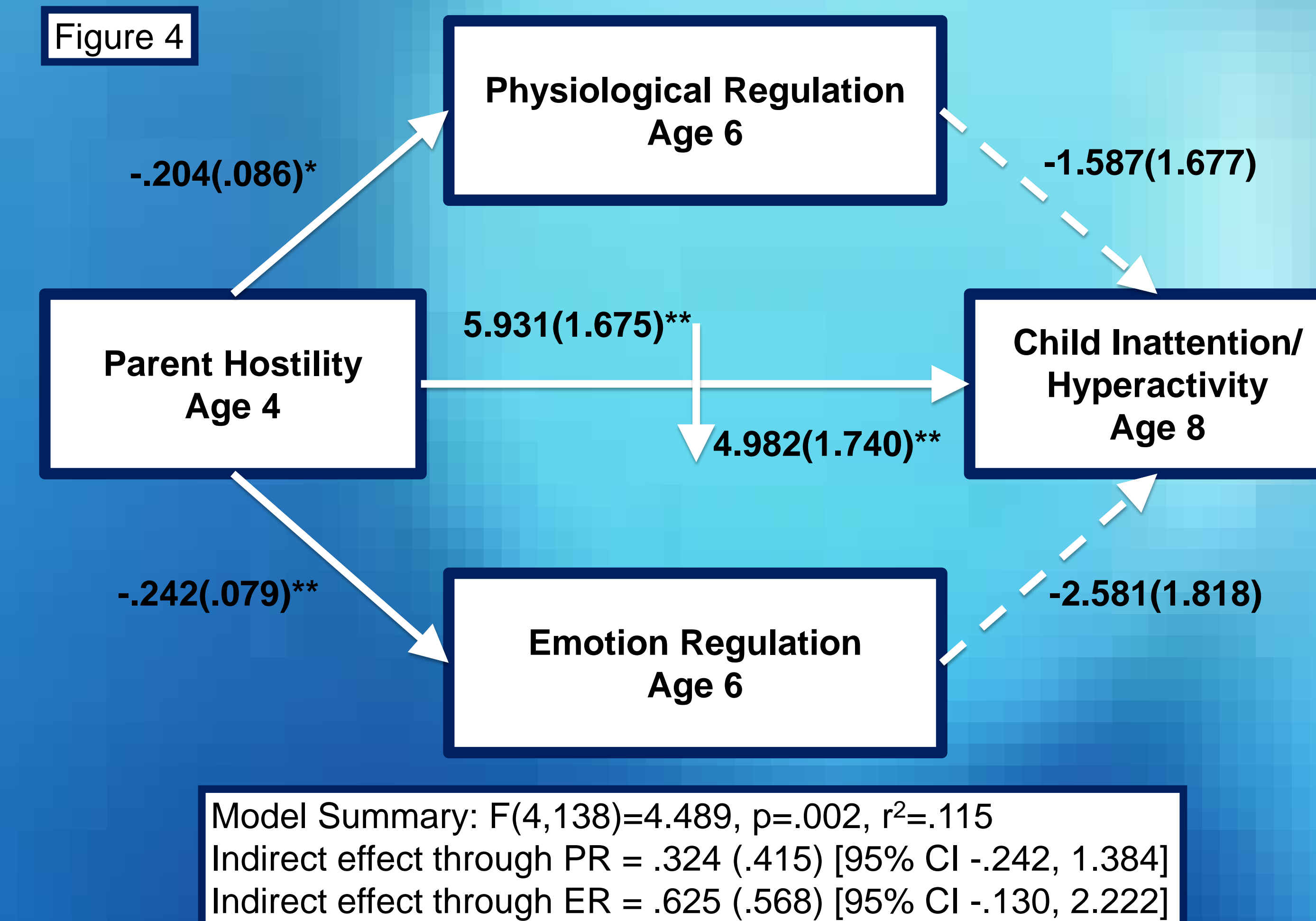


Table 1.
Initial Bivariate Relations with Physiological and Emotion Regulation

	PR	ER
Parent Hostility	-.162 *	-.138 *
Child Depression	-.231 **	-.178 *
Child Anxiety	-.249 **	-.147 #
Child Social Stress	-.231 **	-.305 ***
Child Inattention/Hyperactivity	-.155 #	-.224 **

*** $p<.001$, ** $p<.01$, * $p<.05$, # $p<.10$

Discussion

- This study demonstrates that hostile parenting can have lasting effects on child psychopathology, by way of maladaptive self-regulation.
- Moreover, while both physiological and emotion regulation were directly associated with internalizing, externalizing, and social problems, when accounting for both aspects of regulation jointly, particular outcomes were more strongly driven by one component than the other.
- It remains to be determined whether the comparatively weaker association between internalizing problems and emotion is specific to regulating expressed vs. felt emotion.
- As for the explanatory pathway that may predict inattention/hyperactivity, behavior regulation is one potential candidate factor.
- Nevertheless, these findings highlight the need to examine complex processes within the system of self-regulation, disentangling capabilities that are highly interrelated, to establish the driving force behind specific pathways to adjustment, and to elucidate efficient targets for intervention.

Key References and Acknowledgements

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- Maughan, A., & Cicchetti, D. (2002). Impact of child maltreatment and interadult violence on children's emotion regulation abilities and socioemotional adjustment. *Child Development, 73*(5), 1525-1542. doi: 10.1111/1467-8624.00488
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