

# Mothers' Depression and their Children's Emotional Dysregulation

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## ABSTRACT

- The purpose of this study is to evaluate how maternal depression relates to children's ability to regulate their emotions.
- Participants were 267 English speaking mother-child dyads; 88 depressive and 179 non-depressive mother-child dyads referred to Parent Child Interaction Therapy (PCIT) because of the child's disruptive behavior problems.
- Results showed that 1) child emotional reactivity was correlated with their emotional availability to their mothers; 2) mothers who were depressed rated their children as more emotionally reactive; and 3) their children showed greater variation in the emotional availability with their parents during the 15-minute observational assessment.

## INTRODUCTION

- The ability to regulate one's emotions is an integral part of the socio-emotional developmental process (Cicchetti & Toth, 1995). Children learn how to manage the intensity and expression of emotions with help from their caregivers (Thompson, 1994; Eisenberg & Morris, 2002).
- Young children's ability to regulate their own emotions is contingent upon a caregivers ability to recognize children's emotional state and help soothe them when they become dysregulated (Eisenberg & Morris, 2002; Eisenberg et al., 2003).
- Maternal depression can influence the developing child's emotional regulatory capabilities (Thompson, 2001). Depressed mothers show little positive affect and diminished sensitivity to their children's cues (Timmer et al., 2011). This can be detrimental to children, who need caregivers' engagement for optimal emotional regulation (Robinson et al., 2009).
- Emotional regulation/dysregulation is typically measured by assessing the intensity of children's positive and negative affect in response to an aversive stimulus and also noting how long it takes them to recover to a neutral emotional state (e.g., Ellis, Beavers, Wells, 2009; Gratz et al., 2010) We argue that changes in the intensity of children's affective response to their parents in play situations is one way to measure their emotional dysregulation.
- The purpose of this study is to evaluate the relationship between mothers' self-reported depressive symptoms and their clinic-referred children's emotional availability to increasingly aversive play situations as a way of demonstrating their level of emotional regulation.

## HYPOTHESES

- Based on previous research, we hypothesize that depressed mothers will rate their children as being more emotionally reactive as measured by the Child Behavior Checklist (CBCL), Emotional Reactivity scale.
- We hypothesize that children's emotional reactivity will be correlated with lower emotional availability.
- We hypothesize that as play situations become more aversive, children of depressive mothers will become more dysregulated in play with their mothers than children of non-depressive mothers.

## METHOD

### Participants

- 267 English speaking mother-child dyads; 88 depressive and 179 non-depressive mother-child dyads who were referred to Parent-Child Interaction Therapy (PCIT) because of the child's externalizing behavior problems.
- Children were 2 to 6 years of age (Mean= 3.90).

## METHOD cont.

### Procedure

- Mother-child dyads were evaluated before entering treatment (PCIT). Parents and children were observed in three 5-minute parent-child interactions (child directed play, parent directed play, clean-up) designed to elicit varying amounts of parental control as well as the child's response.
- During child-directed interaction, the child has control over the parent-child game. However, as the interaction moves to parent-directed interaction, the parent must direct the interaction. Clean-up requires the parent to direct the child to clean up without the parents help.

### Measures

- The Brief Symptom Inventory (BSI; Derogatis, 1994) is a self report assessment that measures parent psychological symptoms and will measure the mother's depressive symptoms.
- The Child Behavior Checklist (CBCL; Achenbach, 2001) assesses child behavior problems. For this study we use the Emotionally Reactive Scale as a proxy to assess the child's emotion regulation. The Emotionally Reactive scale is part of the Internalizing group of behavior problems, and may be an early indicator of future mood disorders.
- The Emotionally Reactive Syndrome scale asks questions about whether the child is disturbed by change, has sudden mood changes and other internalizing issues.
- Interactions between mother and child during the 15-minute tapes were coded according to the Emotional Availability coding system (EA, 3<sup>rd</sup> Ed.; Biringen, 2000). The EA Scales have four parent scales (i.e., sensitivity, non-hostility, non-intrusiveness, structuring) and two child scales (i.e., responsiveness, involving).
- For this study, the EA child scales will be used to evaluate the child's emotion dys-regulation in an observational setting. Higher scores indicate a more positive and emotionally availability to the parent, lower scores indicate a child who is observed to be more negative and less emotionally available. A significant drop on these scales from CDI to PDI to Clean Up indicate that in the face of an aversive situation, the child is unable to maintain consistent emotional availability towards the parent.

## RESULTS

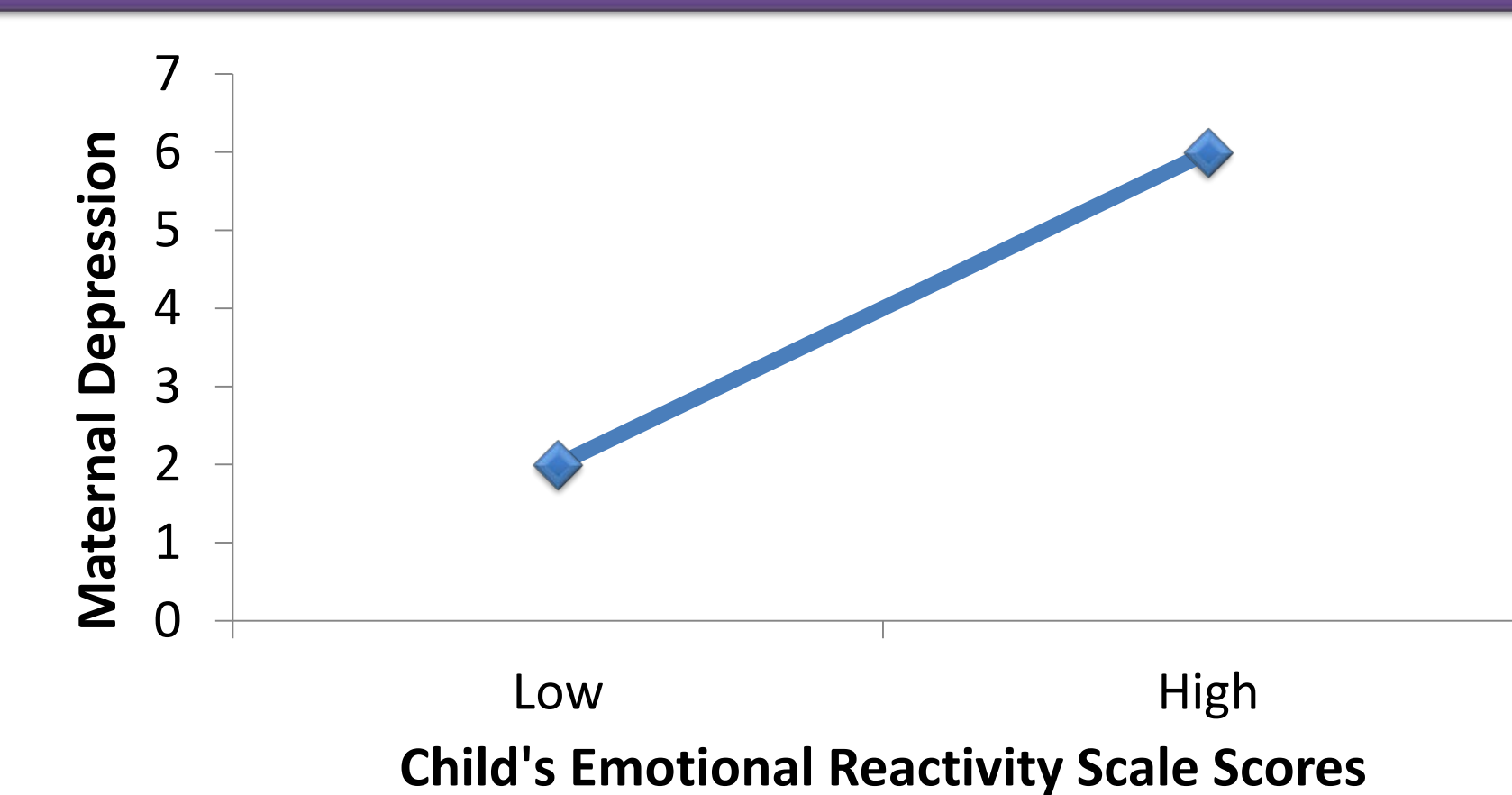
Table 1. Descriptive Statistics for Depressive Mothers and Non-Depressive Mothers

Characteristic	Non-Depressed N = 179	Depressed N = 88
Sex of child (% male)	57.5	63.6
Mean age of child (SD)	3.9 (.984)	3.8 (.914)
Ethnicity of mother		
Caucasian (%)	45.8	52.3
African American (%)	18.4	20.5
Latino (%)	25.1	12.5
Other (%)	10.6	14.8
Risk History		
Physical Abuse (%)	36.1	36.4
Neglect (%)	62.7	53.2
Domestic Violence (%)	60.9	60.3
Sexual Abuse (%)	6.3	10.4
Mothers Criminal history (%)	28.0	30.6
Mean age of Mother in years (SD)	27.8 (5.2)	27.57 (6.6)
Marital Status % Single	68.4	71.3
Mothers educational attainment		
Mean years (SD)	11.4 (2.1)	11.4 (1.7)

- There were no significant differences between depressive groups.

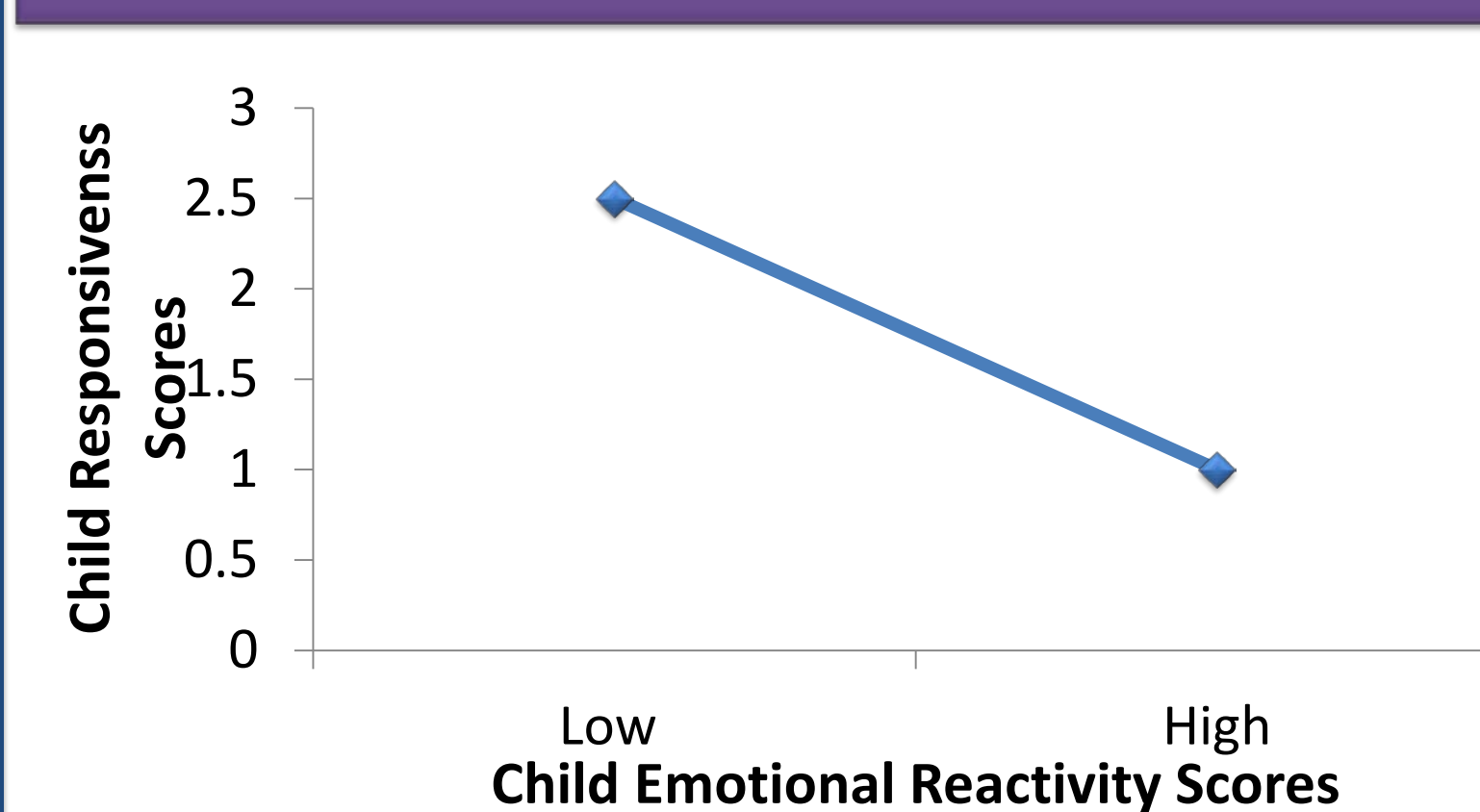
## RESULTS

Graph 1. Correlation of Depression and CBCL Emotionally Reactive Scale



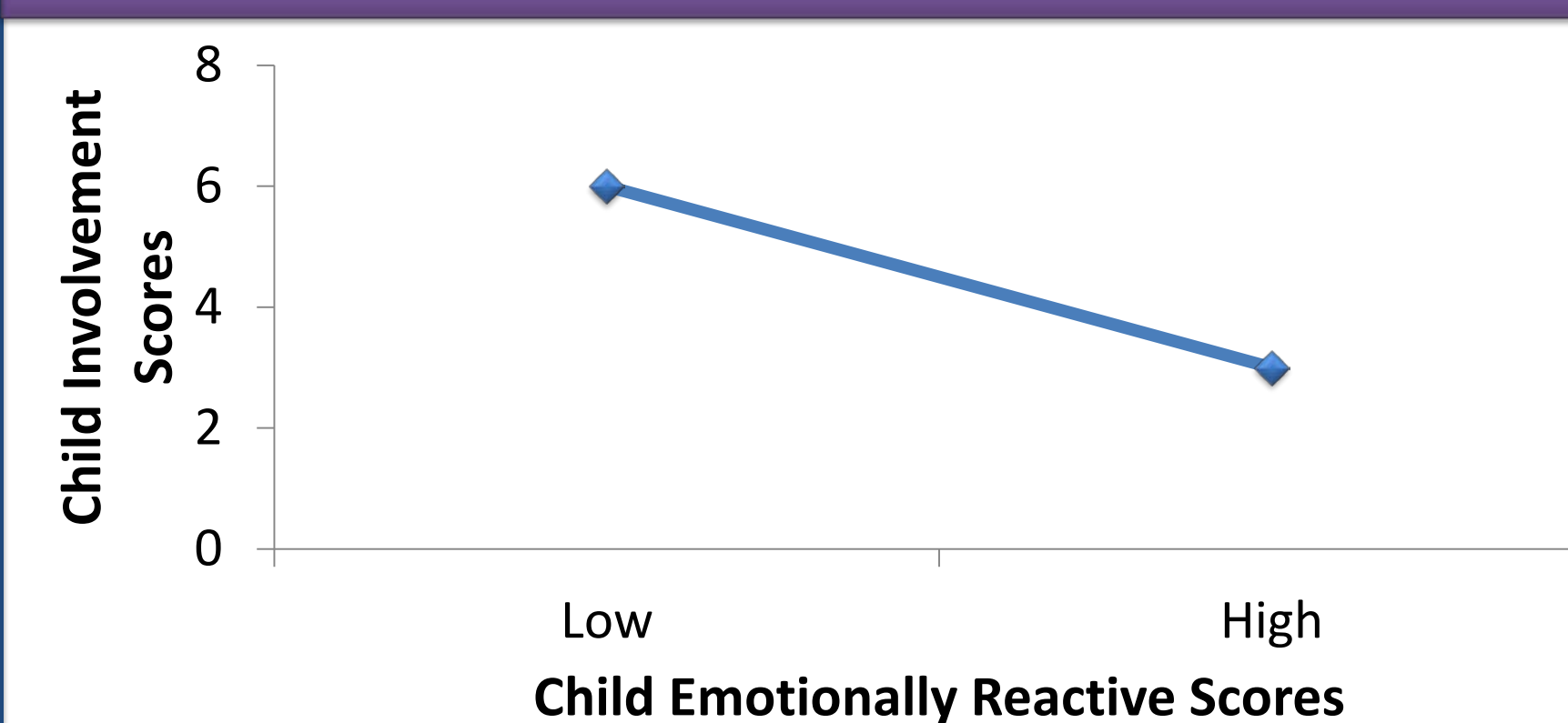
- Maternal Depression significantly correlated with Emotionally Reactive Scale scores on the CBCL.
- $r(265) = .287, p = .00$

Graph 2. Correlation of Child Responsiveness and CBCL Emotionally Reactive Scale



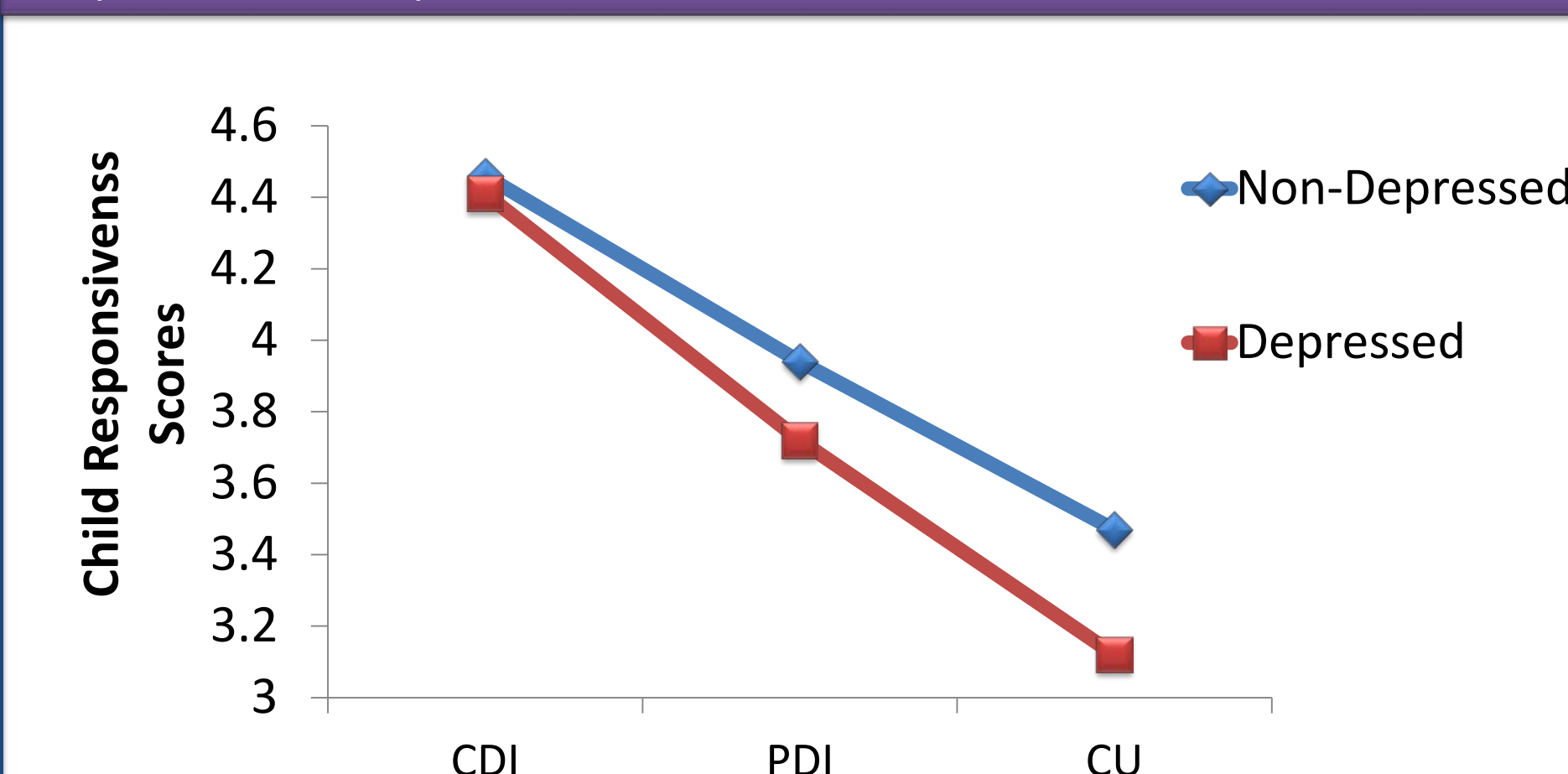
- Children's Responsiveness scores in Emotional Availability significantly correlated with Emotionally Reactive Scale scores on the CBCL.
- $r(265) = -.12, p = .04$

Graph 3. Correlation of Child Involvement and CBCL Emotionally Reactive Scale



- Children's Involvement scores in Emotional Availability significantly correlated with Emotionally Reactive Scale scores on the CBCL.
- $r(265) = -.16, p = .008$

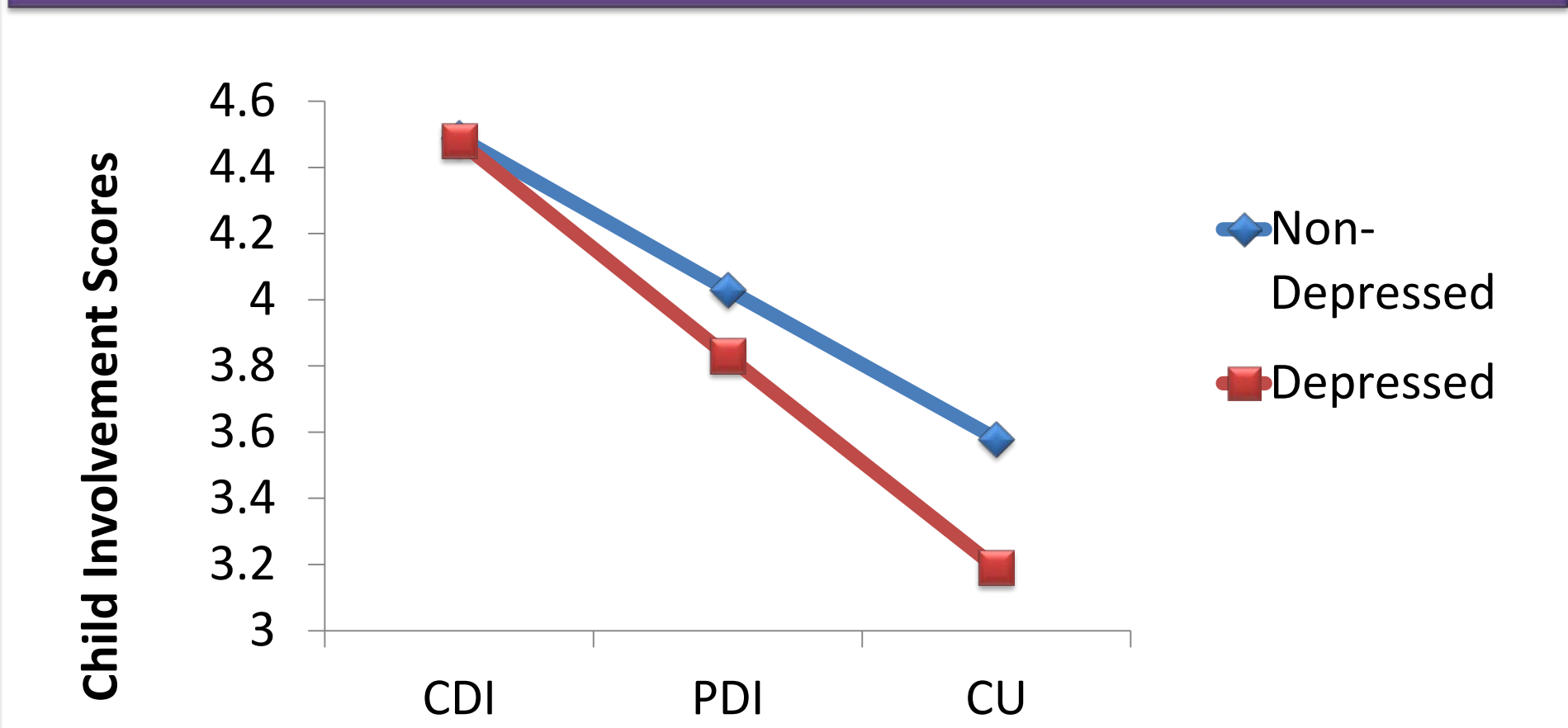
Graph 4. Child Responsiveness across CDI, PDI and CU



- As maternal control increases from CDI to PDI to Clean up, children of both depressive and non-depressive mothers showed less emotional responsiveness.  $F(1, 249) = 4.281, p = .04$

## RESULTS cont.

Graph 5. Child Involvement across CDI, PDI and CU



- As maternal control increases from CDI to PDI to Clean up, children of both depressive and non-depressive mothers showed less involvement.  $F(1, 249) = 4.387, p = .04$
- There was a significant interaction: High Emotional reactivity related to greater decreases in child involvement from CDI to PDI to Clean Up for children with high levels of depressive symptoms.  $F(1, 249) = 4.281, p = .05$

## SUMMARY OF RESULTS

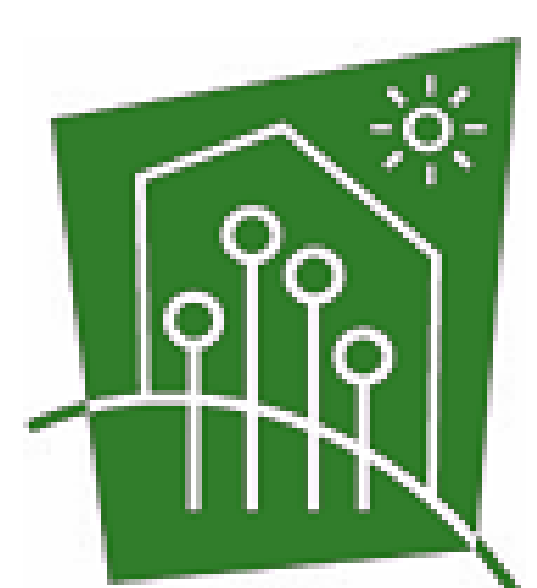
- Maternal depressive symptom severity correlated with their ratings of their children's Emotionally Reactivity on the CBCL.
- Children's Emotionally Reactivity was significantly negatively correlated with their observed emotional availability.
- Child responsiveness decreased more sharply among children of depressed than non-depressed mothers as maternal control increased from CDI to PDI to Clean up.
- Increases in emotional reactivity related to greater decreases in child involvement from CDI to PDI to Clean Up, particularly among children of mothers with high levels of depressive symptoms.

## DISCUSSION

- The purpose of this study is to evaluate the relationship between mothers' self-reported depressive symptoms and their clinic-referred children's emotional availability in increasingly aversive play situations as a way of demonstrating their level of emotional regulation.
- Demographic comparisons showed that the two groups of dyads were similar. They did not differ in age, ethnicity, education, exposure to violence, drug exposure, or maltreatment history. This suggests that parents' reports of higher child emotional reactivity, observed differences in child emotional availability, and greater emotional dysregulation in response to the aversive play situations can be attributed to differences in mothers' depressive symptoms.
- Findings presented here also help confirm the usefulness of looking not only at the quality of the relationship in the first five minutes of the DPICS assessment, but comparing children's responses to the shift in activity to parent-led play and finally to clean-up. The degree to which the therapist observes a shift in children's response to the parent will inform them about the children's difficulties with emotional regulation.

## CLINICAL IMPLICATIONS

- Children's emotional dysregulation is a trauma symptom. Increasing regulation should be incorporated into a child's treatment goals; and parents should be coached to be aware of impending dysregulation and develop strategies to help soothe and regulate.



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