The current study investigates the impact of child IQ, child emotion reactivity, adverse experiences, and parent factors (i.e., predictability, emotion regulation) on child emotional regulation and reactivity in young children (4-7 years).

### Methods

**Participants**
- 88 Children aged 4-7 (M = 5.73 years) and their caregivers

**Measures**
- Emotional Regulation and Reactivity
  - Emotional Regulation: the ability to exert control over your own emotional state
  - Emotional Reactivity: the tendency to experience frequent and intense emotional arousal
- Environment and Experiences: The Impact of Threat and Deprivation
  - Threat: associated with changes in neural circuits that underlie emotional learning
  - Changes in hippocampus, amygdala, and ventromedial prefrontal cortex
  - At risk children often develop nonoptimal emotional regulation strategies (e.g., avoidance, disengagement, overcontrol)
- Deprivation: studies show reduced cortical thickness in the association cortex, disruptions in prefrontal cortex function, and declines in cognitive function

**Data Collection**
- CAREGivers and their children engaged in 3 visits (one at-home, two in lab).
- Data on emotion regulation and adversity collected via a secure online survey system
- Parent surveys provided data for the CTS-PC, STIMQ, QUIC, and DERS
- IQ data collected via the KBIT.

**Data Analysis**
- Descriptive statistics, regression analyses, and moderation analyses were conducted in SPSS.

### Hypotheses
- Parental reactivity is related to heightened reactivity in offspring
- Possible pathways include modeling and expected response performance
- IQ may impact emotional regulation (ER) and reactivity
- Flexible thinking and strong problem-solving ability are related to increased ER strategies
- Higher IQ is linked to higher self-regulation scores, heightened emotional discrimination, and higher emotional intelligence in children.

### Results: Correlations and Regressions

**Correlation matrix assessing the relationship between each child factor, environmental/experiential circumstance, and parent factor:**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.12</td>
</tr>
<tr>
<td>Participant Age in Years</td>
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</tr>
<tr>
<td>Composite Standard KBIT Score</td>
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</tr>
<tr>
<td>Threat</td>
<td>0.22</td>
</tr>
<tr>
<td>Cognitive Stimulation</td>
<td>0.09</td>
</tr>
<tr>
<td>Parental Predictability</td>
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</tr>
<tr>
<td>Parent Difficulties in Emotion Regulation</td>
<td>0.53</td>
</tr>
</tbody>
</table>

**Regression utilizing the Liability and Negativity subscale to assess emotional reactivity.** Indicates parent dysregulation is significantly related to emotional reactivity in children, and threat approach a clinically significant impact on emotional reactivity.

**Table 3. Regression Table for Liability/Negativity Subscale from Emotional Regulation Checklist**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>p-value</th>
</tr>
</thead>
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<tr>
<td>Participant Age in Years</td>
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<tr>
<td>Composite Standard KBIT Score</td>
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</tr>
<tr>
<td>Threat</td>
<td>0.08</td>
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<tr>
<td>Cognitive Stimulation</td>
<td>0.35</td>
</tr>
<tr>
<td>Parental Predictability</td>
<td>0.23</td>
</tr>
<tr>
<td>Parent Difficulties in Emotion Regulation</td>
<td>-0.24</td>
</tr>
</tbody>
</table>

### Results: Moderation Analysis

**Conclusions**
- Threat was not significantly associated with emotional reactivity or regulation
- Child’s IQ was not significantly associated with emotion regulation or predictability
- Deprivation and parental predictability are related to emotional regulation such that more cognitive stimulation and parental predictability were linked to increased regulation in children.
- Parental regulation impacts both emotional regulation and reactivity such that more parental emotional dysregulation is related to more reactivity and less regulation in children.
- Parental predictability’s impact on child regulation is moderated by parent emotional intelligence.

Overall, parent factors and environment/experiences heavily impacted the emotional regulation and reactivity of young children while child factors did not. Further research should explore the moderating relationship of parental predictability and regulation, and continue to explore the impact of IQ on emotionality across the lifespan.

### References