Introduction
How does parental depression impact children’s social referencing across the early childhood period?

Parental depression may have detrimental effects on children’s socioemotional development.

• Parents with depression are less responsive to their children, such as gazing less at their children’s faces. (Parke & Simons, 1990)
• Children coming from a home with a depressed parent exhibit more shy and withdrawn personalities. (Belsky & Rovine, 1988)

Children with a depressed parent experience disruptions in attachment relationships that may impact their social referencing. (Breniere, Clinton, & Mintz, 1998)

• Attachment, being based in a child’s inclination to look toward their parent for support and comfort, may play a great role in a child’s social referencing techniques and practice (Bretherton, 1990).
• Children of depressed mothers are more likely to have an insecure attachment relationship. (Bretherton, Clinton, & Mintz, 1998)
• 17% of children of depressed mothers are securely attached compared to 68% of children with non-depressed mothers.

Social referencing is a measure of social communication based on the information gathering and regulation techniques employed by children naturally. (Milton, 1991)

For example, children will look toward a caregiver for feedback to know what to do with novel objects. (Palmore, Cosenza, & Palermo, 1996) If the caregiver appears anxious, the child will typically approach the stimulus anxiously as well. (Hirshman, Cosenza, Topper, & Malow, 2004)

Previous studies have indicated that the impacts of parental depression seem greatest for children experiencing the effects of their parent’s depression at an earlier age. (Ass et al., 2018)

• In the current study, we examined the relationship between parental depression and social referencing in two different age groups. We predicted that higher levels of parental depression would correlate with poorer performance on social referencing tasks, and that this relationship would be most pronounced when measured at infancy.

Methods

Participants
9-Month-Olds: Participants were recruited by phone from a community participant pool. All children were screened for normal developmental or neurological disorders, and known vision or hearing impairments.

• Participants and members of Kathleen M. Thomas’ Cognitive Development & Neuroimaging Lab.

5-Year-Olds: Participants were recruited by phone from record of participation in a study four years prior.

Participants

<table>
<thead>
<tr>
<th>Age at Test</th>
<th>9-Month-Olds (n = 104)</th>
<th>5-Year-Olds (n = 45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M ± SD</td>
<td>9.91 months range = 8.8 – 9.83 months</td>
<td>5.52 years range = 5.16 – 5.74 years</td>
</tr>
<tr>
<td>Sex</td>
<td>M ≤ 53</td>
<td>22, 23 m</td>
</tr>
</tbody>
</table>

Acknowledgments

This research was supported by a University of Minnesota Graduate School Fellowship and Doctoral Dissertation Fellowship, and by the NIMH under a Post-Behavioral National Parenting Center Award (T32HD007151) from the NICHD. Additional support was provided by the University of Minnesota’s Institute on the Learning Disabilities and Development. Additional support from the University of Minnesota’s Institute of Behavioral Development & Neuroimaging Lab. The authors thank the families of participants and members of Kathleen M. Thomas’ Cognitive Development & Neuroimaging Lab.

Results: 9-Month-Olds

Infants of parents with higher levels of depression spent less time attending to people.

• There was a negative correlation between parental depression scores and duration of looking time towards people by 9-month-old infants (r = -0.27).

Infants of parents with higher levels of depression spent more time in quiet disengagement.

• There was a positive correlation between parental depression scores and duration of time spent in quiet disengagement by 9-month-old infants (r = 0.30).

Results: 5-Year-Olds

Children of parents who report higher levels of depression spent less time looking towards experimenters by 5-year-old children (r = -0.36).

There was a negative correlation between parental depression scores and time spent looking towards experimenters by 5-year-old children (r = -0.36). Children of parents who report higher levels of depression had less attention shifts between the gift and the experimenter.

Children of more highly depressed parents displayed fewer instances of social referencing, with less shifts of attention toward the experimenter (r = -0.27) and toward the present (r = -0.29).

Conclusion

Parental depression impacts the development and expression of social referencing across early childhood.

Our results suggest consistency in the effects of parental depression over time.

• Similar effects across age groups (despite highly different tasks) suggests that parental depression has stable effects on children’s social referencing across development.
• This further signifies the importance of intervention efforts to assist parents experiencing depression over the early childhood period.

Most parental depression scores fell in the normative range.

• The clinical cut-off score for the CES-D is 16; only 5-10% of our sample fell into the clinical range for depression.
• This indicates that even milder/non-clinical levels of depression in parents predict children’s social referencing development.

Further research suggestions:

• Future research should investigate whether behavioral interventions are effective for parents experiencing depression symptoms at non-clinical levels.