Sibling Mother-Infant Attachment: Different Patterns of Interaction Lead to Similar Relationships

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**ABSTRACT**

**PURPOSE:** To investigate the role of maternal sensitivity and interactive behavior in sibling attachment non-concordance.

**RESULTS:** 1) Global measures of sensitivity suggest that mothers of concordant-secure and non-concordant infants demonstrate a similar degree of sensitivity towards each child. 2) Mothers with non-concordant infants interact more similarly with each child on domains of maternal sensitivity, compared to mothers whose infants are concordant.

**CONCLUSION:** The quality of the attachment relationship in families with non-concordant mother-infant relationships— in contrast to families with concordant dyads— does not appear to be systematically affected by maternal sensitivity as typically assessed. More detailed assessment of the interactions suggest that mothers with non-concordant relationships with their infants may be unable to adapt their behavior to suit the unique needs of each child.

**METHOD**

**PARTICIPANTS**
- 50 mothers were assessed with each of their two children when each child was 13 months of age. The average spacing between children was 29 months (SD = 11.5).
- Mothers ranged from 24 to 39 years at the birth of their first child (M = 31.7 years). On average, mothers had completed an average of 14 years of education, and reported a mean annual total family income between $40,000 and $50,000.

**MATERIALS**
- **Home Visit:** Mother-infant dyads were observed during a 2.5-hour home visit, which included a divided attention task for the mother. The following assessments were performed:
  - **Maternal Behaviour Q-Sort (MBQS, Pederson et al., 1995):** 90 cards that each reflect a specific aspect of mother-infant interaction are sorted into 9 different piles, ranging from “most like” to “least like” the mother.
  - **Q-Sort of the interaction with a Q-Sort describing a prototypically sensitive mother.**
- **Domains of Maternal Interactive Behaviour:** The 90 items of the MBQS were sorted into nine rational domains based on how closely items were conceptually related.
  - **Awareness (α = .93):** Mom’s awareness of her baby’s needs.
  - **Effectiveness (α = .89):** The effectiveness of Mom’s response to the baby’s signals.
- **HYPOTHESES**
  1. Distinct content domains of maternal interaction will identify patterns of specific behaviors better accounting for non-concordance than global measures of sensitivity.
  2. Some domains of maternal interaction will be more important in establishing non-concordant relationships than others.

**RESULTS**

**Non-Concordance Rates**
- Two-way (secure- vs insecure) attachment classifications were used to establish non-concordance.
- Sibling attachment classifications were not significantly related, \( \chi^2(1) = 1.72, ns \) (see Table 1).

**Table 1.** Non-concordance in sibling attachment classifications. Annual total family income between $40,000 and $50,000.

<table>
<thead>
<tr>
<th></th>
<th>Younger Sib</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>Not B</td>
<td>Total</td>
</tr>
<tr>
<td>Older Sib</td>
<td>22 (44%)</td>
<td>9 (18%)</td>
<td>31 (62%)</td>
</tr>
<tr>
<td></td>
<td>19.6 ± 2.2</td>
<td>11.2 ± 2.2</td>
<td>31</td>
</tr>
<tr>
<td>Not B</td>
<td>10 (20%)</td>
<td>9 (18%)</td>
<td>19 (38%)</td>
</tr>
<tr>
<td></td>
<td>12.2 ± 2.2</td>
<td>6.8 ± 2.2</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>32 (64%)</td>
<td>18 (36%)</td>
<td>50</td>
</tr>
</tbody>
</table>

**Global Sensitivity**
- Siblings’ secure- vs insecure classifications were used to assign each child to one of four groups: SS (secure with secure sibling), Ss (secure with insecure sibling), sS (insecure with secure sibling), and ss (insecure with insecure sibling).
- Maternal sensitivity differed significantly between groups, \( F(3, 97) = 4.04, p < .01 \). The ss group differed significantly from all other groups; maternal sensitivity did not differ in the SS, Ss, and sS groups. Mean MBQS scores by group are presented in Table 2.

**Table 2.** Mean MBQS scores by group.

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>Ss</th>
<th>sS</th>
<th>ss</th>
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</thead>
<tbody>
<tr>
<td>Mean</td>
<td>.55</td>
<td>.63</td>
<td>.83</td>
<td>.66</td>
</tr>
<tr>
<td>SD</td>
<td>.41</td>
<td>.19</td>
<td>.19</td>
<td>.18</td>
</tr>
<tr>
<td>N</td>
<td>44</td>
<td>19</td>
<td>19</td>
<td>18</td>
</tr>
</tbody>
</table>

**CONCLUSIONS**
- While global maternal sensitivity scores in concordant families are consistent with theoretical predictions, no systemic relationship between sensitivity and security was found for infants in non-concordant families.
- The presence of a secure dyad in the family appears to moderate the association between sensitivity and security for the child in an insecure relationship.
- In non-concordant dyads, global measures do not appear to be assessing maternal sensitivity from the child’s perspective, i.e. the actual felt maternal sensitivity may be higher than assessed for the securely attached child, and lower for the insecurely attached child.
- Correlations of interaction content domain scores across mother-infant dyads within a family suggest that non-concordance may result when mothers are unable to adapt their behaviour to suit the unique needs of each child.
- From an observer’s perspective, sensitivity may take many different forms; however, from the child’s perspective, only one of these forms is effective in establishing attachment security.