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Maternal State of Mind: How Does It Impact the Ability to Flexibly Adjust to Siblings' Needs?

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ABSTRACT

PURPOSE: To investigate the impact of maternal state of mind on the ability to adapt interactive behavior and perceptions of attachment behaviour across siblings.

RESULTS: Maternal sensitivity and perceptions of siblings' attachment behavior were highly correlated across children of non-Autonomous mothers, but not Autonomous mothers. Non-Autonomous mothers behaved similarly on eight domains of interactive behaviour, while Autonomous mothers behaved similarly on only two.

CONCLUSION: These findings suggest that maternal state of mind is implicated in the ability to flexibly adapt interactive style and relationship-specific attachment perceptions across siblings.

INTRODUCTION

• Maternal state of mind regarding attachment is considered important in shaping the quality of mother-infant interaction.

• Mothers classified as Autonomous on the AAI (Hesse et al., 2008) are thought to value attachment relationships and perceive them objectively, thus making them more capable of adjusting their perceptions and interactions to suit the child's needs.

• Mothers classified as non-Autonomous are thought to frame their relationships through a defensive lens, making them less capable of matching their perceptions and interactive style to each child.

• These associations have been based on dyadic research, despite the fact that most mothers have several children. No previous research has examined the link between maternal state of mind regarding attachment and flexibility/rigidity in maternal perceptions and interactions across siblings.

HYPOTHESES

1) ***Mothers classified as Autonomous on the AAI will demonstrate greater flexibility in their perceptions and interactions across siblings.***

2) ***Mothers classified as non-Autonomous on the AAI will demonstrate less flexibility (more rigidity) in their perceptions and interactions across siblings.***

METHOD

PARTICIPANTS

• 41 adult mothers who had been recruited for participation in several larger studies with their firstborn child, and who later had a second child. Siblings were spaced an average of 29.6 months apart.
• At the second home visit, mothers ranged in age from 19 to 40 years (*M* = 31.8, *SD* = 4.4). All were married. On average, mothers' highest level of education was some college/university. Average household income was $50 000 - $59 000 CDN.

MEASURES

Home Visit: The following measures were used to assess each sibling at 12 months of age:

Attachment Q-Sort (AQS; Waters & Deane, 1985)
Traditionally, the AQS is taken as a measure of attachment security, representing the degree of similarity (correlation) between a child's attachment behaviors and those of a prototypically sensitive child.
• In this study, AQS sorts were completed by mothers, and were taken to represent their perceptions of the child's behavior, as influenced by their overall framework for conceptualizing their relationship with that child.

Maternal Sensitivity Q-Sort (MBQS; Pederson et al., 1995; 1998)
• 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
  • E.g. "Annoyed by baby's uncooperative behavior"; "Shows delight in interactions with baby"
• Mother-infant dyads were observed interacting with and without toys, engaging in a challenging task, and reading a story.
• Sensitivity was calculated based on how closely the observer's Q-Sort, based on these interactions, correlated 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.
i.Awareness: M's awareness of her baby's needs.
ii.Response Effectiveness: effectiveness of response to the B's signals.
iii.Positive Affect: how M's affect influences her interactions with B.
iv.Rejection: M's degree of acceptance towards B and his behaviors.
v.Synchrony: Degree to which M and B are engaged in reciprocal interaction.
vi.Controlling/Interfering: Extent to which M interferes with B's autonomy in their interactions.
vii.Facilitation of Exploration and Learning: Degree to which M encourages B's exploratory behaviors.
viii.Comfort with Physical Contact: Degree to which M is comfortable engaging in physical contact with B.
ix.Engagement: Degree to which M actively engages B during interactions.

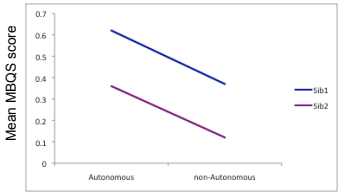
Interview: Mothers completed an AAI within six months of either home visit.
• *State of mind was classified as Autonomous (n = 20) or non-Autonomous (*n = 18; Preoccupied or Dismissing)

RESULTS

State of Mind and Maternal Sensitivity

• A mixed-model ANOVA indicated that MBQS scores were significantly higher for firstborns than second-born children of both Autonomous and non-Autonomous mothers, $F(1, 36) = 12.35$, $p < .01$. Means are presented in Figure 1.
  • Average sensitivity across siblings was higher for Autonomous mothers than non-Autonomous mothers

Figure 1. *Mean MBQS scores for first- and second-born children of Autonomous and non-Autonomous mothers.*



• Maternal sensitivity was highly correlated across children of non-Autonomous mothers ($r = .79$, $p < .01$), but not across children of Autonomous mothers ($r = .41$, ns). These correlations were not significantly different.

State of Mind and Domains of Interactive Behaviour

• The interactive content of Autonomous mothers was similar across siblings on only two domains; in contrast, non-Autonomous mothers interacted similarly on eight domains (see Table 1).

Table 1. *Correlations across siblings on domains of maternal interactive behaviour for Autonomous and non-Autonomous mothers.*

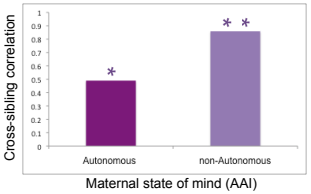
Domain	Autonomous[1]	Non-Autonomous[2]
Awareness	.43	.56 *
Response Effectiveness	.21	.57 *
Positive Affect	.38	.64 *
Rejection	.50 *	.67 *
Synchrony	.50 *	.66 *
Controlling	.48	.53 *
Facilitation of Exploration	.15	.31
Comfort with Contact	.47	.55 *
Engagement	.25	.63 *

[1]N = 20 mothers. [2]N = 18 mothers.
* $p < .05$.

State of Mind and Perceptions of Siblings' Relationships

• A mixed-model ANOVA indicated no significant differences in maternal AQS scores by birth order (*M* = .39, *SD* = .21 for Sib1; *M* = .39, *SD* = .20 for Sib2).
  • Averaged across siblings, mother-completed AQS scores did not significantly differ for Autonomous (*M* = .36, *SD* = .17) versus non-Autonomous (*M* = .42, *SD* = .20) mothers.
• Maternal perceptions of infant attachment behavior were highly correlated across children for non-Autonomous mothers, but less so for Autonomous mothers (see Figure 2).

Figure 2. *Correlations between mother-completed AQS scores for first- and second-born children of Autonomous and non-Autonomous mothers.*



Note. Correlations across siblings were significantly different for Autonomous and non-Autonomous mothers , $Z = 2.0$, $p < .05$.
* $p < .05$. ** $p < .01$.

CONCLUSIONS

• Consistent with past research, Autonomous mothers were more sensitive than non-Autonomous mothers, on average.

• However, the sensitivity of Autonomous mothers (as captured by a global sensitivity score) varied more across siblings.

• Examination of interactive content suggests that Autonomous mothers are more able to adjust their interactive style across children, while non-Autonomous mothers maintain a rigid pattern that may not suit each child.

• This finding is mirrored in their perceptions of each child's attachment behaviour: while Autonomous mothers appear more able to view each child in relatively distinct ways, non-Autonomous mothers seem to apply a fixed pattern of perception that may not capture the uniqueness of each child's behaviour.

• These findings suggest that the capacity to view each child and his needs as distinct may be a centrally important factor in the capacity to behave differently (and thus, perhaps, appropriately sensitively) towards each.

• Future research might extend these questions to investigate the association between maternal state of mind, flexibility/rigidity in interactive behavior and attachment perceptions, and the quality of siblings' attachment relationships.