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Antecedents of Attachment Disorganization across the First Year: Interactions among Child and Parent Variables

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INTRODUCTION

➢ **Disorganized attachment** is seen as reflecting an infant's **lack of strategy** for coping with the stress of the Strange Situation procedure (SSP; Ainsworth et al., 1978)

➢ The identification of disorganized attachment by Main and Solomon (1986) generated a large body of research into its antecedents and consequences.

➢ Despite these advances, however, **1)** few studies have employed a **prospective longitudinal design** to clarify antecedents of disorganization, and **2)** most research has focused on predicting disorganization from single risk factors, rarely investigating possible interactions among child and parent or environmental variables.

PRESENT STUDY

➢ The current study investigated the development of disorganized attachment across the first year from a **prospective longitudinal perspective** from 3 – 13 months.

➢ A primary goal was to employ a **transactional model** to predict disorganization at the end of the first year, with a focus on interactions among a variety of child (gender, stressful child characteristics) and parent variables (parenting stress, maternal behaviour, child care).

METHOD

PARTICIPANTS

➢ Community sample of *N* = 66 adult mothers and their first-born infants.

➢ Mean age of mothers was 30.08. Majority of mothers were married (75%) and had completed an average of 14.52 years of education. Average household income was $50, 000 - $59, 999.

METHOD Cont'd

MEASURES

➢ *Parenting Stress Inventory (PSI, Abidin, 1990).* Mothers completed the PSI to report on parenting stress related to both Child and Parent characteristics. High scores reflect greater stress.
➢ *Maternal sensitivity.* Based on 2-hour observations of parent-infant interaction at home, maternal behaviour was assessed using *1) Ainsworth's Maternal Sensitivity Scales* (Ainsworth et al., 1974) & 2) *Maternal Behaviour Q-Sort* (MBQS; Pederson et al., 1999).
➢ *Frightening/frightened (FR) maternal behaviour (Main & Hesse, 1992, 1998).* The FR Coding System was used to assess anomalous parental behaviour during parent-infant interaction at home.
➢ *Non-maternal Care.* Mothers reported on a variety of child care variables, including *Quantity of non-maternal care* (mean hours away from the mother per week), *Age of entry* into non-maternal care, and *Stability of care* (number of changes to child care arrangements).
➢ *Strange Situation Procedure (SSP; Ainsworth et al., 1978; Main & Solomon, 1990).* Standard laboratory assessment of attachment. Ratings for disorganization assigned (1-9).

PROCEDURE

➢ **3-months: Home Visit**
  ➢ PSI, Demographics (income, education, maternal age, infant gender)

➢ **4-months: Home Visit**
  ➢ Maternal Sensitivity, Non-maternal Care, Demographics

➢ **10-months: Home Visit**
  ➢ PSI, Non-maternal Care, Maternal Sensitivity, FR Behaviour, Demographics

➢ **13-months: Laboratory Visit**
  ➢ Assessment of Attachment

RESULTS

➢ 22 dyads (33% of the sample) were classified as disorganized (D). Average D score = 3.73 (*SD* = 2.08).

➢ **Significant Associations with D:**

Infant Gender χ^2 (1) = 5.14*, 73% of D's were male

Stressful Child Characteristics (PSI, 10mo)
Total Child Stress, *r* = .25*, Lack of Positive Reinforcement, *r* = .23*, Difficult Mood, *r* = .28*, Demandingness, *r* = .22*.

Parent-related Stress (PSI, 3&10mo)
Attachment *r* = .32**, Competence, *r* = .25)

Maternal Behaviour
Interference (4mo) *r* = .26*, MBQS sensitivity (10mo) *r* = .22*, **FR Behaviour** (10mo) *r* = .38**

Quantity of non-maternal care (Hours per week)
4mo. (*r* = .28*) & 10mo. (*r* = .25*) , **Stability of Child Care Arrangement** (*r* = .22*)

➢ **Predicting D from Interactions Among Antecedent Variables:**

1) Infant gender X PSI Attachment (3mo) predicted D, *R* = .49, *F* (3, 61) = 6.58*. High maternal attachment-related stress was most predictive of D for male infants, ß = 1.19, *t* (61) = 3.67** (See Figure 1).

2) Quantity of non-maternal care (10mo) X MBQS Sensitivity (10mo) predicted D, *R* = .42, *F* (3, 60) = 4.28**. Greater hours of non-maternal care predicted D only when mothers displayed low sensitivity at home, ß = 0.06, *t* (60) = 2.9** (See Figure 2).

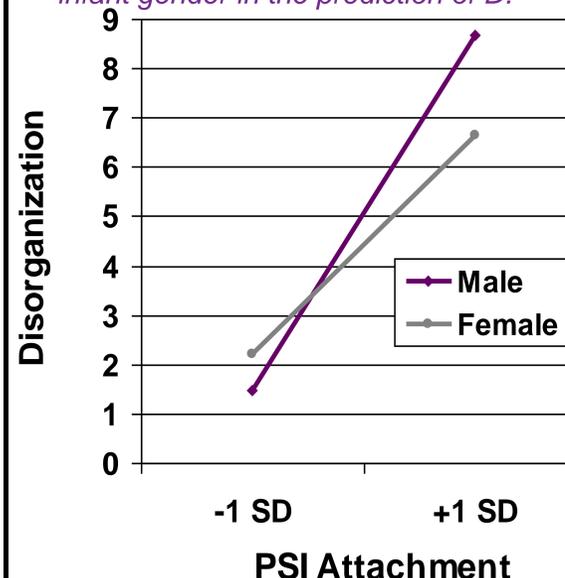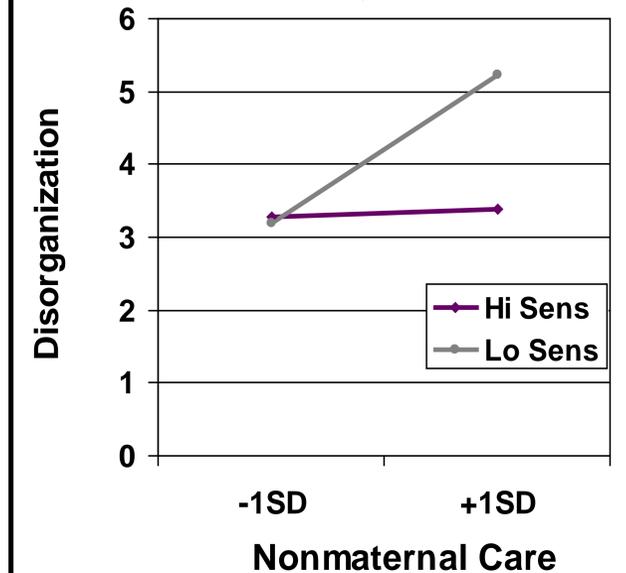**Figure 1.** *Interaction among PSI attachment and infant gender in the prediction of D.*

Figure 2. *Interaction among 10mo non-maternal care and maternal sensitivity in the prediction of D.*

3) Infant gender X PSI Competence (3mo) also predicted D, *R* = .39, *F* (3, 61) = 3.72**. Males again were more vulnerable to D when mothers reported less parenting competence.

4) Quantity of non-maternal care (10mo) X Infant negative mood (10mo) predicted D, *R* = .51, *F* (3, 58) = 6.95**. A high quantity of non-maternal care predicted D only when infants were rated as high in negative mood.

CONCLUSIONS

➢ Disorganization was associated with a variety of child and parent/environmental variables across the first year of life.

➢ There appear to be complex interactional effects between the child's vulnerability (male gender, difficult mood) and parental/ environmental characteristics (parenting stress related to low competence and the attachment relationship, quantity of non-maternal care, maternal sensitivity) that contribute to the development of disorganized relationships.

➢ These results can be conceptualized within an additive interactional model of development. Certain variables (male gender, non-maternal care) may constitute vulnerability factors for infants and the cumulative effects of these vulnerability factors over the first year are likely to increase the likelihood of developing a disorganized relationship.