

# PREDICTORS OF MOTHER-PREATURE INFANT INTERACTIONS AT 6 AND 18 MONTHS CORRECTED AGE

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**Purpose:** Interactions between mothers and premature infants are influenced by a number of factors. The study examined the extent to which child characteristics (gender, multiple birth), child illness severity (birthweight, days of mechanical ventilation, neurological insults, number of rehospitalizations), maternal characteristics (race, education, age, parity), maternal psychological well-being (perceived stress due to the NICU, depressive symptoms, worry about child health), and paternal support (maternal marital status, number of child caregiving activities performed by the father) predict mother-infant interactions at 6 and 18 months corrected for prematurity.

**Method:** 110 prematures (57 boys, 53 girls; 49 African Americans, 60 whites, 1 Asian) who weighed less than 1500 gm or required mechanical ventilation were recruited from 2 hospitals in 2 states. Mean gestational age at birth was 28.8 weeks; birthweight averaged 1224 gm. At 6 and 18 months, the infant and mother were videotaped for 45 minute in their home. After videotaping, the HOME Inventory was scored. The occurrence of child and mother behaviors in each 10-second interval of the videotape was coded. Ongoing inter-rater reliability (kappas) for these behaviors ranged from .62 to .95. Observational behaviors and HOME sub-scales were grouped into three maternal (positive involvement, developmental stimulation, negative control) and three child (social, developmental maturity, irritability) interactive dimensions. General linear mixed models were calculated for each dimension using corrected age, child characteristics, illness severity, maternal characteristics, maternal psychological well-being, paternal support, and their interactions with age as predictors.

**Findings:** Maternal positive involvement and child irritability decreased with age; maternal developmental stimulation, negative control, child social, and developmental maturity increased. Maternal positive involvement was lower for infants in multiple birth sets and for younger and multiparous mothers. Mothers with less education and with fathers who engaged in less caregiving showed more negative control. Mothers of infants with more rehospitalizations and white mothers showed more developmental stimulation. Less maternal education, first-time mothers, and less maternal worry about the child's health were related to greater child developmental maturity. Child social behaviors were not related to any predictive factor but was the only child dimension correlated with all 3 maternal dimensions, suggesting it reflected maternal behaviors, rather than the predictive factors examined in the analysis.

**Discussion:** Although mother-premature interactions were associated with variables in each predictor group, only a few possible predictors were related to each interactive dimension. Interestingly, depressive symptoms and stress experienced in the NICU appeared to have minimal influence on mother-premature infant interactions. Mothers showed more positive involvement and greater developmental stimulation with sicker infants suggesting maternal compensation for infant interactive difficulties.