Infant Temperament and Maternal Parenting Self-Efficacy Predict Child Weight Outcomes


**SUMMARY:** A sample of mother-infant dyads were assessed several times in the child’s first three years of life to examine the relationships among infant negative reactivity (expression of negative emotions), self-regulation, parenting self-efficacy (belief in one’s parenting ability), and child weight outcomes. Greater observed infant negative reactivity predicted more weight gain when mothers had lower parenting self-efficacy.

**KEY FINDINGS:**
- The mean mother-reported scores for infants at one year was 3.15 for negative reactivity and 4.57 for self-regulation.
- Greater mother-reported infant self-regulation at one year was associated with lower child body mass index at one year.
- Greater infant negative reactivity predicted greater weight gain when mothers had lower self-efficacy; less infant negative reactivity predicted less weight gain when mothers had higher self-efficacy.

**IMPLICATIONS FOR MILITARY PROFESSIONALS:**
Military professionals could:
- Collaborate with organizations connected with military parents to emphasize the importance of reducing risk factors associated with childhood obesity
- Facilitate support groups for military parents that focus on enhancing parental self-efficacy

**IMPLICATIONS FOR PROGRAMS:**
Programs could:
- Include information in parenting curricula about factors that pose an increased risk of their infant being overweight in childhood
- Provide education designed to increase military parents self-efficacy prior to the birth of a child

**IMPLICATIONS FOR POLICIES:**
Policies could:
- Continue to support utilization of evidence-based parenting programs for military Service members and their families
- Recommend professional development regarding the risk factors associated with childhood obesity among military families

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METHODS
- Mothers intending to breastfeed were recruited from the maternity ward of an academic medical center in Pennsylvania; mothers and babies were assessed at infant birth, at one year, and at three years and 16 weeks and additional data were collected from a subsample of participants when the children were three years old.
- At age one year, mothers completed the Infant Behavior Questionnaire-Revised (negative reactivity and self-regulation scores) and infants were observed during an adapted version of the LAB-TAB Toy Removal Task.
- Birth weights were obtained via infants medical charts and research nurses measured infants weight and length at age one year. Weight and length data from medical appointments were obtained for the subsample of three year olds.

PARTICIPANTS
- Participants included 110 mother-infant dyads.
- The majority of infants in the study were female (51%), with a mean birth weight for gestational age percentile of 45 (SD = 28.7).
- Ninety-one percent of mothers were White and 65% of mothers were college-educated, with a family income of over $50,000 per year (65%).

LIMITATIONS
- The sample is primarily White, well-educated, and intending to breast feed; results may not generalize beyond this population.
- Information on the self-efficacy measures used and how they were administered was not described, limiting the validity of the results.
- Only civilian mother-child dyads were included in the study and therefore, results may not be generalizable to military families.

AVENUES FOR FUTURE RESEARCH
Future research could:
- Include multiple aspects of infant early negative reactivity and self-regulation and evaluate their interactions with parenting
- Explicitly measure parenting practices and styles, infant temperament, and weight outcomes with military families
- Examine other risk factors for childhood obesity, particularly among military families

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