

**Abstract Submitted to SRCD 2013**  
**From Infant Sleep to Toddler Attachment**

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Theory and empirical data call attention to the importance of studying parenting and family functioning in relation to children's sleep (Keller, Buckhalt, & El Shiekh, 2008; Sadeh, Tikotsky & Scher, 2010). The aim of this study was to contribute to our understanding of the little studied but theoretically complex relations between infant sleep quality, parenting, and attachment security. Past studies on infant sleep and attachment, which have produced mixed results, have focused only on attachment classifications of secure/insecure; also important to examine are the rating scales that represent key elements of attachment quality. In the current study, with its longitudinal design and culturally diverse U.S. sample, we include maternal reports of being bothered by infant sleep and examine whether these associations differ based on ethnicity because beliefs about what is normative in terms of sleep varies across ethnic/cultural groups (McKenna et al., 2007).

Participants were 87 mothers and their healthy infants (53% female) at 6 and 18 months of age. Mothers were 55% Caucasian, 29% Latino/Hispanic, 5% Asian/Asian-American, and 11% from other cultural/ethnic groups. Maternal education ranged from 6 to 17+ years ( $M=15$  years,  $SD=2.17$ ). At 6 months, mothers visited the laboratory and completed questionnaires about their infant's sleep. At 18 months, mothers completed similar questionnaires and were observed with their toddlers in the Strange Situation. Family income and infant temperament were included as controls.

Infants with more nighttime issues at 6 months were more likely to be securely attached at 18 months, but toddlers with more nighttime issues at 18 months were less likely to be securely attached. Across time, infants with more nighttime issues at 6 months were less avoidant at 18 months, thus supporting the position that more sleep issues at 6 months may give mothers an opportunity to be sensitive and responsive to their infants' distress signals.

Moderator analyses indicated that Caucasian parents were more likely than Hispanic parents to display the pattern that being more bothered by bedtime issues at 6 months predicted attachment security and avoidance at 18 months. Being bothered by infant sleep likely arises for parents whose sleep is interrupted to care for their infants during the night. Parental involvement around going to and returning to sleep is normative in Hispanic cultures, as is physical proximity to parents at night (i.e., cosleeping; Lozoff et al., 1984), which may make it easier for mothers to be contingently responsive and render infants less likely to have to signal distress. However, when 6 month-old infants were distressed during the night, more sleep issues in Hispanic (but not Caucasian) families predicted less proximity seeking ( $b = -3.69$ ,  $SE = 1.59$ ,  $p = .03$ ), a marker of insecure attachments. Although we controlled for sample differences in income, there could have been other stressors in the Hispanic families that contributed independently to infant distress and toddler attachment.

In sum, results from the current longitudinal study contribute new perspectives on infants' sleep behaviors in relation to attachment. Findings have relevance for parents of young children and professionals who work with families around sleep issues.

Table 1

*Predicting security of toddler attachment from sleep behaviors at 6 and 18 months*

Independent Variables: Sleep	Dependent Variables: Attachment	Main Effects
Nighttime issues (6m)	Secure attachment classification (18m)	$b = 1.32, SE = .66, p = .04$
Nighttime issues (18m)	Secure attachment classification (18m)	$b = -6.82, SE = 2.79, p = .01$
Nighttime issues (6m)	Avoidance: rating scale (18m)	$b = -.13, SE = .06, p = .03$