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Whether children of separated parents 2 years of age and younger should have frequent overnight parenting time with noncustodial fathers has been the subject of much debate but little data. Contrary to some previous findings, the current study found benefits to both parent-child relationships associated with overnights (a) up to and including equal numbers of overnights at both parents’ homes, (b) for both the long-term mother-child and father-child relationships, and (c) both when children were 2 years old, as well as when they were under 1 year of age. These benefits held after controlling for subsequent parenting time with fathers in childhood and adolescence, parent education and conflict up to 5 years after the separation, and children’s sex and age at separation. While the findings do not establish causality they provide strong support for policies to encourage frequent overnight parenting time for infants and toddlers, because the benefits associated with overnights also held for parents who initially agreed about overnights as well as for those who disagreed and had the overnight parenting plan imposed over 1 parent’s objections. The observed benefits for the long-term father-child relationship are consistent with findings from intervention studies showing that fathers who are more involved with infants and toddlers develop better parenting skills and relationships with their children.

Keywords: shared parenting time, parent-child relationships, infants, parent conflict, child custody policy

About 15 years ago, a debate arose among family policymakers, researchers, legal scholars, and mental health professionals about potential risks and benefits of infants and young children of divorced or separated parents spending overnight parenting time with their noncustodial fathers (Biringen, Howard, & Tanner, 2002; Kelly & Lamb, 2000; Lamb & Kelly, 2001; Solomon & Biringen, 2001; Warshak, 2000, 2002). Recently, a special issue on attachment and overnights appeared in July 2011 in Family Court Review, the journal of the International Association of Family and Conciliation Courts (AFCC), followed by several commentaries (Garber, 2012; Hynan, 2012; Lamb, 2012; Ludolph, 2012). In the special issue several prominent attachment researchers, including Carol George, Judith Solomon (George, Solomon, & McIntosh, 2011), Mary Main (Main, Hesse, & Hesse, 2011), and Alan Sroufe (Sroufe & McIntosh, 2011) offered specific policy recommendations to the professional community, and by extension to parents, against frequent overnight parenting time with fathers. Sroufe appeared to speak for the group when he concluded that:

prior to age 18 months, overnights away from the primary carer (sic) should be quite rare . . . . At 3 [years], I would not recommend it to be equal time. It is easier to see that happening when the child is 6 or 8. (Sroufe & McIntosh, 2011, pp. 472 – 473)

Sroufe assured readers that these recommendations came with “the weight of expert attachment opinion” behind them (Sroufe & McIntosh, 2011, p. 472). The theoretical justification for the policy recommendation that overnight parenting time during infancy and toddlerhood should be “quite rare” is the notion of monotropy, originally proposed by John Bowlby in his formulation of modern attachment theory (Bowlby, 1969/1982), that the infant initially forms an attachment to only the primary caregiver. According to this reasoning, overnight separations from the primary caregiver risk damage to that first relationship, with potentially far-reaching consequences. Conversely, postponing overnights should not harm the child’s relationship with the other parent because the child is initially forming an attachment with only the primary parent. The attachment relationship with the other parent should be more affected by parenting time during later years than during infancy. However, as Everett Waters, another prominent attachment researcher pointed out also in the special issue:

Bowlby softened up on the idea of monotropy and it is not well justified in the logic of the theory that is understood today. There are people who would assert this, but there are no propositions of attachment theory that lead you to deduce that we must have this monotropic tendency. It is possible for infants and children and for adults to use a multiplicity of figures for secure-base support. (Waters & McIntosh, 2011, pp. 479 – 480)
Soon after, a neutral stance was taken in a second special issue (Pruett & DiFonzo, 2014) that reported on a “think tank on shared parenting” convened by AFCC and composed of 19 social scientists and mental health practitioners, 12 legal professionals, and one activist-educator. The report concluded that research had not settled the issue and eschewed any prescriptions about the amount of overnight parenting time for young children.

At the same time, two review papers appeared in support of overnight parenting time during the child’s first three years. Warshak (2014) was published with the endorsement of 110 developmental psychologists and mental health practitioners, and argued that the broader literature and theory justified frequent overnight separations as beneficial to the father-child relationship and not harmful to the mother-child relationship. Nielsen (2014) argued that the overnighting debate is the latest example in which advocates, in this case those opposed to overnights for young children, have promoted and misrepresented one or two studies in order to influence policy.

This issue of the effects of the quantity of parenting time (i.e., frequency of overnights) on parent-child relationships signals an important change of focus. It has been common in the research literature to find statements that “it is the quantity—not the quantity—of time that matters most to children’s outcomes” (Pruett et al., 2016, p. 91), and to find researchers (e.g., Adamsons & Johnson, 2013) testing the “straw man” question of whether the quantity of time or father-child relationships better predict child outcomes (Fabricius, Sokol, Diaz, & Braver, 2012, 2016). Research on overnights redirects us toward the more appropriate question of whether the quantity of time predicts better relationships, which, in turn, predict other outcomes. This question grounds the research on parenting time in child developmental theory, central to which is attachment theory (Fabricius, Braver, Diaz, & Velez, 2010). This will allow us to understand and test hypothesized causal mechanisms connecting the quantity of parenting time to parent-child relationships, and relationships to long-term outcomes. The shared parenting literature has been rightly criticized for being atheoretical (Irving & Benjamin, 1995; Smyth, McIntosh, Emery, & Howarth, 2016), but in this time of social change with policies at stake hypothesis-testing of well-grounded theoretical models is critical to understand how these complex processes work. However, there are, to date, only three empirical studies of parenting time and parent-child relationships for infants and toddlers (McIntosh, Smyth, & Kelaher, 2010, 2013; Solomon & George, 1999; Tornello et al., 2013). One other (Pruett, Ebling, & Insabella, 2004) did not assess parent-child relationships.

In the initial study (Solomon & George, 1999), researchers assessed 16-month-olds’ attachments to each of their parents one month apart in the Strange Situation. Those with at least one overnight with father per month formed the overnight group and those with at least one daytime visit but no overnights formed the no-overnight group. The researchers also included a married group, but the meaningful comparison is the overnight group to the no-overnight group, not to the married group because that comparison confounds effects due to divorce with effects due to overnights.

Attachment classifications were not significantly different in the overnight group compared with the no-overnight group, for either mothers or fathers. Nevertheless, given a non-significant trend (p = .10) for overnight mothers to have fewer secure and more disorganized or unclassifiable attachments, the researchers tested whether two sets of factors were related to attachment within the overnight group. The first test tested the linear effects hypothesis that effects of overnights “should be more pronounced the longer and/or the more frequent the overnight separations are and the earlier such arrangements are put into place” (Solomon & George, 1999, p. 5), and included eight measures (e.g., longest number of consecutive overnights per month, total number of overnights per month). The findings did not support the linear effects hypothesis. None of the measures of length, frequency, or age of initiation of overnight separations from the mother was related to attachment classifications for either parent.

The second set tested the hypothesis that “risk [of overnights] may be potentiated and maintained by adverse conditions, or . . . may under supportive conditions, be prevented” (Solomon & George, 1999, p. 5), and included the mother’s “psychological protection” (i.e., her report of how well she adapted the visitation schedule to infants’ needs and responded to signs of stress during transitions), the mother’s mental health, and the mother’s report of the parents’ communication and conflict. The authors reasoned that overnights might make mother-infant attachment security more susceptible to deficiencies in each of these factors, in which case these factors should relate to infant-mother attachment only, or especially, in the overnight group. Parent conflict showed the predicted effects. Only in the overnight group was more parent conflict associated with less mother-child security. Parent communication was not significantly related to attachment in the overnight group (p = .09), although the means for both groups were in the predicted directions, and there was no evidence of overnight-related attachment susceptibility to deficiencies in mother’s mental health or psychological protection. For fathers, better mental health, more communication, and less conflict might have been expected to facilitate secure attachments, but these three factors did not predict attachment to fathers more so in the overnight than in the no-overnight group.

In sum, the initial study provided limited evidence for effects of overnights on infant-parent attachment. Out of 12 analyses for mothers, there was one significant finding (overnight-related susceptibility to parent conflict) and two nonsignificant trends (overnight-related susceptibility to poor parent communication, and fewer secure attachments in the overnight group). Out of 12 analyses for fathers, there were no effects associated with overnights.

Pruett, Ebling, and Insabella (2004) studied parents with either a young child (0 to 3 years) or an older child (4 to 6 years) at the time of their court filing. Testing occurred 15 to 18 months later. Both parents rated the child’s behavior problems using nine subscales of the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983). Overnights were scored dichotomously (present or absent) because analyzing frequency did not add any information; thus, as in Solomon and George (1999) there was no support for the linear effects hypothesis.

After controlling for age and sex of the child, parent conflict, and negative changes in the father-child relationship since the separation, only the Social Problems subscale of the CBCL was related to overnights. Fathers reported that children with overnights in both age groups showed fewer social problems. The Social Problems subscale was administered only to those aged 4 years or older, which meant that it probably included less than half
of the younger group (i.e., those from about 2 1/2 through 3 years). Thus, overnights for children aged 2 and 3 years were significantly associated with one behavioral benefit 15 to 18 months later, while in Solomon and George (1999) they were significantly associated with one cost to infant-mother attachment, but both studies yielded mostly null findings.

McIntosh et al. (2010, 2013) examined infants (aged 0 to 1) and 2- to 3-year-olds in the Longitudinal Study of Australian Children, controlling for family socioeconomic status, parenting warmth, hostility toward the child, and parent cooperation and conflict. Children were divided into three ordinal groups (no overnights with some daytime-only visits, moderate number of overnights, and high number of overnights). Three groups are the minimum needed to test the linear effects hypothesis that more overnights result in more problems. If true, then as illustrated in Figure 1a, there should be an increase in problems between the no overnight group and the moderate group, and a similar increase between the moderate and high groups, resulting in a more-or-less straight line. Two types of nonlinear, threshold effects could also result from overnights, one in which only the high group showed elevated levels of problems (Figure 1b) and one in which both the moderate and high groups showed equivalent elevated levels of problems (Figure 1c). These nonlinear patterns would require special explanation. Finally, U-shaped patterns (Figure 1d), in which the no overnight and high groups show similar elevated levels of problems and the moderate group has less problems, have no clear interpretation and cannot be taken at face value as evidence for effects of overnights.

The researchers (McIntosh et al., 2010, 2013) compared the moderate group with the high group, but for reasons unexplained they did not compare the no overnight group with the moderate group. Instead they also compared the no-overnight group to the moderate group. That analysis plan does not allow a clear test of the linear effects hypothesis because it does not compare the no-overnight group to the moderate group; thus, the following characterizations of the patterns of their findings are based on the results of the two comparisons they did test. For consistency with their report, I follow their convention of interpreting effects with p < .05.

a. Linear Effects Hypothesis: The more overnights the more harm

b. Threshold at High: More harm at high level

c. Threshold at Moderate: More harm at moderate and high levels

d. U-Shaped: No clear interpretation

Figure 1. Four potential patterns of association between three levels of overnights (none, moderate, high) and harm to child.

For infants, there were no linear patterns. There were two U-shaped patterns similar to Figure 1d in which the no-overnight and high groups showed more problems with wheezing and irritability than the moderate group. There was one threshold pattern similar to Figure 1c for “visual monitoring of the primary caregiver,” which the authors took to indicate anxiety about the primary caregiver’s availability. However, this variable was composed of three selected items (e.g., “Does this child try to get you to notice interesting objects—just to get you to look at the objects, not to get you to do anything with them?”) from two subscales (Eye Gaze and Communication) of the Communication and Symbolic Behavior Scales (Wetherby & Prizant, 2002). This instrument assesses infants’ readiness to learn to talk. Infants who exhibit more of the behaviors measured in these two subscales are more ready to learn to talk. None of the items in these two subscales, including the selected three, ask about anxiety about the availability of the caregiver, or focus on situations likely to induce anxiety, such as an impending or potential separation. Thus these three items lack even the most basic face validity (i.e., they do not ask directly about the phenomenon under study). McIntosh et al. (2010, 2013) and McIntosh, Pruett, & Kelly, 2015 assert face validity without warrant, and offer no evidence of the other more rigorous aspects of validity required for scientific credibility. The other three outcome variables for children under two showed no relation to overnights.

For 2- to 3-year-olds, the only linear pattern was that more overnights were associated with more problems with persistence. There was one threshold pattern similar to Figure 1b for problem behaviors, indicating that only high numbers of overnights were associated with elevated problem behaviors. Conversely, overnights were associated with better health, in that the high group showed less wheezing (inverse of Figure 1b) and both the moderate and high groups were rated as having better global health (inverse of Figure 1c). The other three outcomes for 2- to 3-year-olds showed no relation to overnights.

In sum, out of 13 analyses one showed a linear relation indicating that more overnights were associated with 2- to 3-year-olds’ difficulty with persistence; one showed that only high numbers of overnights were associated with more 2- to 3-year-old problem behaviors; two showed nonlinear patterns of benefits for 2- to 3-year-olds’ health (less wheezing and better global health); two showed ambiguous (U-shaped) patterns for infant wheezing and irritability; six showed no associations; and the only assessment relating to mother-child relationships was not interpretable (“visual monitoring”). These are the findings that Nielsen (2014) argued have been used by advocates opposed to overnights for young children.

The most recent study (Tornello et al., 2013) used data from the Fragile Families and Child Well-Being Study, a large longitudinal data set begun in 1998 to 2000 to study the risks associated with inner-city poverty, in which deliberate oversampling produced a sample in which most parents were unmarried, racial/ethnic minority, and low income. The sample could be considered ideal for detecting negative effects of overnights according to Solomon and George’s (1999) hypothesis that overnights leave children more susceptible to other family stressors, of which these fragile families had many.

Following McIntosh et al. (2010), the researchers categorized children at age 1 and again at age 3 into ordinal groups (no
overnights with some daytime-only visits, moderate, and high numbers of overnights), and also neglected to compare the no-overnight group to the moderate groups. One outcome measure at age 3 was mothers’ ratings on the ‘Toddler Attachment Q-sort’ (TAQ), a shortened and modified version of the Attachment Q set (AQS; Waters, 1995). This measure is designed to be administered by trained observers, not by untrained parents. A comprehensive and authoritative assessment of the validity of the AQS using data from 139 studies on 13,835 children (van IJzendoorn, Vereijken, Bakermans-Kranenburg, & Riksen-Walraven, 2004) concluded that having mothers administer the AQS is unwarranted because that method failed to meet acceptable standards of validity, making it unclear what was being measured. Doubts about the validity of the mothers’ ratings in Tornello et al. (2013) are reinforced because there was an uncharacteristically low overall rate (i.e., 25%) of “insecure” ratings for a poverty sample. Mulligan and Flanagan (2006; Table 4) report that in a nationally representative study within the United States the rate of insecure mother-child attachment for families below the poverty threshold is almost twice that rate (i.e., 47%), and the rate at or above the poverty level is also higher (i.e., 36%). Other outcome measures, assessed at ages 3 and 5, were mothers’ reports of children’s adjustment using seven subscales of the CBCL at each age. Control variables included mothers’ age, income, education, race, depression, and relationships with the fathers; fathers’ parenting quality; children’s age and sex; and number of adults in household.

Regarding mothers’ TAQ ratings at age 3, there was a U-shaped pattern with overnights at age 1. The proportions of children rated as “insecure” in the no overnight group (M = .25) and in the high group (.43) were not significantly different. The proportion in the moderate group (.16) was inexplicably low, especially for this sample, and was significantly lower than the high group. There was no association with overnights between the ages of 1 and 3.

Among Tornello et al.’s (2013) 14 analyses of children’s adjustment at age 3, and 14 analyses at age 5, there was one threshold pattern in which moderate and high levels of overnights between the ages of 1 and 3 were associated with more positive behaviors at age 5 (inverse of Figure 1c). As with the previous studies, the findings could be best described as contradictory (one nonlinear beneficial association at age 5 and one U-shaped pattern at age 1) and limited (28 remaining analyses showed null effects).

In sum, across the four studies there was one linear association, in which more overnights at age 2 to 3 were associated with more difficulty with persistence, and one threshold pattern, in which only high numbers of overnights at age 2 to 3 were associated with more problem behaviors ( McIntosh et al., 2010, 2013). However, the latter finding is contradicted by two other findings: Children aged 2 and 3 years with any overnight showed fewer social problems (Pruett et al., 2004), and 3-year-olds with moderate and high levels of overnight showed more positive behaviors at age 5 (Tornello et al., 2013). Similarly, the U-shaped patterns regarding overnights at age 1 and wheezing and irritability are contradicted by the threshold benefits regarding overnight at age 2 and wheezing and health ( McIntosh et al., 2010, 2013). None of these findings involved mother-child relationships, the area in which overnight separations should purportedly have had the most direct consequences. The only two indications of harm to the mother-child relationship were nonlinear associations obtained with measures that lack demonstrated validity (i.e., the threshold pattern with “visual monitoring” in McIntosh et al., 2010, 2013, and the U-shaped pattern with mother ratings of attachment behaviors in Tornello et al., 2013), and thus are not interpretable on two grounds. The only study that used the gold-standard Strange Situation attachment assessment for young children (Solomon & George, 1999) found no associations for either parent with eight measures of the length, frequency, and age of initiation of overnights. At least 39 other tests in these studies found no associations with overnights, even at the trend level (i.e., p = .10).

Thus, the evidence provided by the four studies is limited and contradictory, and systematic comparison of the different findings is difficult. A number of other reviews of these studies have appeared, citations to which are provided by Emery et al. (2016). It seems an understatement to say that this empirical literature does not provide an adequate foundation for evidence-based policy, and Emery et al. (2016) concur.

The current study was designed to contribute to this debate by focusing on three factors not addressed by the previous studies. First, the previous studies examined only short-term associations with overnights. That makes it difficult to distinguish temporary adjustment problems from more enduring changes in child behavior and quality of parent-child relationships. Second, apart from the first study (Solomon & George, 1999), the three subsequent studies did not maintain a focus on the father-child relationship. Proponents of overnight parenting time for infants and toddlers (e.g., Warshak, 2014) argue that it should increase father commitment to child rearing and benefit the father-child relationship. Third, none of the previous studies examined daytime-only parenting time, although proponents of postponing overnights until the child is past toddlerhood (e.g., Stroufe & McIntosh, 2011), argue that brief daytime visits should allow fathers adequate time to acquire parenting skills and lay the foundation for good father-child relationships.

To assess the quality of long-term relationships with both mothers and fathers, we recruited college students whose parents separated before they were 3 years old and asked them to report on their current relationships with each of their parents. To assess daytime-only and overnight parenting time at the father’s home, we also recruited their parents and asked them to report the amount of both during each of the child’s first three years.

Concerns have been raised (e.g., Garfinkel, McLanahan, & Wallerstein, 2004) that college students from divorced families might give an overly optimistic picture of divorce. One can imagine that they and their parents might be predisposed to shared parenting, and that they might be less affected by their parents’ divorces and consequently might have better parent-child relationships than noncollege divorce samples. However, while intuitively plausible, there is little support for these two assumptions. First, college students from divorced families and the general public both overwhelmingly endorse shared parenting, and there are few demographic differences in endorsement within the general public (Braver, Ellman, Votrub, & Fabricius, 2011; Fabricius et al., 2010; Fabricius & Hall, 2000). Second, the levels of lingering painful feelings about their parents’ divorces, including feelings of loss and abandonment and parental blame, are similar in elite college students and low-income community samples of adolescents and young adults, many of whom had chaotic family backgrounds including abuse and extreme poverty (Laumann-Billings & Emery, 2000). Consequently, the associations between shared
parenting time and child adjustment outcomes are the same in convenience samples (including college students) and samples obtained from court records and in-school students (Bauserman, 2002; Laumann-Billings & Emery, 2000). But the most important reason why a college sample is appropriate in the present case is that the hypothesis of harm is based on an argument about the biology of the infant and the supposed need for one consistently available primary caregiver, and none of the attachment theorists (George, Solomon, et al., 2011; Main, Hesse, & Hesse, 2011; Sroufe & McIntosh, 2011) suggested that this hypothesis should not apply equally to infants who will and will not eventually attend college. Thus, we judged that the benefit of using college students and their parents in this study (i.e., the ability to study long-term associations with early overnights without having to wait 20 years for longitudinal data) outweighed any concerns about the representativeness of the sample.

Associations between overnightsleep and parent-child relationships could be biased by parent conflict and parent education. Parents with less conflict or more education might provide more overnights, and their relationships with their children might be enhanced by those factors rather than the higher levels of overnight parenting time. In order to control for these factors, parents also reported the frequency of parent conflict before and up to five years after the separation, and their level of education.

In order to detect effects of parenting time during the child’s first three years, it is necessary to control for effects of later parenting time. Thus, parents also reported parenting time with the father when the child was 5 to 10, and 10 to 15 years old. We also controlled for age of initiation of overnights by asking parents to report whether they were separated during one, two, or all three of children’s first three years.

Furthermore, we tested for differential effects of overnights when children were under 1 year old and when they were 2 years old. This allowed us to evaluate the argument (e.g., Sroufe & McIntosh, 2011) that overnights during infancy, when children lack the language and cognitive skills to understand time, recall the past, and anticipate future events, should make them most vulnerable to the stress of overnight separations, and lead to the most enduring disruptions in their relationships with their mothers.

Finally, we used an approach outlined by Fabricius, Braver, Diaz, and Velez (2010) that can yield the information needed to inform decision makers about the wisdom of imposing shared parenting time on families where only one parent wants it. This involves distinguishing the families in which both parents initially agreed to shared parenting time and thus presumably volunteered for it, from families in which the parents disagreed and shared parenting was in some way imposed upon them. If imposed shared parenting is found to be associated with benefits, it would justify a rebuttable presumption for shared parenting. Fabricius et al. (2012) used this approach on publically available data from the Stanford Child Custody Study (Maccoby & Mnookin, 1992). They found that the great majority of parents with shared parenting had to accept it after mediation, custody evaluation, trial, or judicial imposition. Nevertheless, those with shared parenting time had the most well-adjusted children years later. We employed this approach in the current study by asking parents to report whether they agreed about overnight parenting time, or whether they disagreed (i.e., “never came to agreement, one of us got what he or she wanted mostly because the other one gave in,“ or “the final decision came out of either mediation, custody evaluation, attorney-led bargaining, or court hearing”).

Students rated the current quality of their relationships with each of their parents on five sets of indicators. We selected these indicators because they should collectively tap into feelings of security about continued parental support during the challenges and uncertainties of emerging adulthood (Arnett, 2004). We assessed young adults’ current attributions of parental blame for family problems (Laumann-Billings & Emery, 2000), their representations of how warm and responsive each parent had been (Parker, 1989), how much they had enjoyed spending time together, the overall closeness of their relationship, and how much they felt they mattered to each parent (Marshall, 2001; Marshall, 2004; Rosenberg & McCullough, 1981). The perception of how much one matters to one’s parent is closely related to how much trust one has that the parent will be there when needed and, hence, how emotionally secure a child feels in the relationship. Greater perceived mattering to parents, especially to fathers, has been found to predict fewer internalizing and externalizing problems during adolescence (Schenck et al., 2009; Suh et al., 2016).

Method

Participants

The study was one of several projects offered at a large southwestern university between 2012 and 2016 to fulfill the research participation requirement for introductory psychology. Students who appeared eligible based on screening questions about when their parents separated were emailed an invitation to participate in a study about “the living arrangements that parents who are divorced or separated make for their children.” The invitation explained they would take an online survey and at least one of their parents would also have to respond to a different survey. Students were encouraged to ask both of their parents to respond.

Two hundred thirty students completed the survey with at least one parent reporting. There were 167 cases in which only the mother responded; 37 in which both parents responded; and 26 in which only the father responded. We selected the cases for substantive analyses (N = 116) which met all three of the following criteria: (a) parents reported that they permanently separated before the child was 3 years old rather than after; (b) parents reported that the child had not ever had more than 50% parenting time with the father; and (c) either the parents reported that the child had some parenting time with the father before the child was 15 years old (N = 124), or the parents reported that the father had lived with the mother during the child’s first two years (N = 5), or the father had submitted a survey (N = 2). Criterion (b) eliminated concerns about the atypicality of families in which the child’s primary residence was at the father’s home. Criterion (c) filtered cases that we deemed father absence, as did Tornello et al. (2013), because these situations confound the absence of overnights with the absence of fathers. When both parents responded, we used the mothers’ responses to select the cases for the substantive analyses.

The mean age of the students was 19 years. According to each parent’s self-report among the cases selected for substantive analyses, 47% of mothers and 43% of fathers ranged from less than a high school education to a technical, vocational, or associate’s degree; 28% of mothers and 32% of fathers had an undergraduate
degree; and 21% of mothers and 21% of fathers had a master’s degree or higher. Mean level of education for both parents was at the associate’s degree level.

**Procedures**

Students completed an online survey and emailed their parent(s) a cover letter and copy of the parent survey. Parents returned completed surveys directly to the researchers.

**Measures**

**Parenting time in infancy and toddlerhood.** For each of the child’s first three years (under 1 year, 1 to 2 years old, and 2 to 3 years old), if parents responded that they were separated during all or part of that year they were asked (a) “How many days the child spent any time at all (including overnights) at dad’s home in an average 2-week period,” and (b) “How many overnights the child spend at dad’s home in an average 2-week period.” The number of overnights (b) was subtracted from the number of days (a) to obtain the number of daytime visits. In calculating the yearly percent of parenting time in each year, an oversight was counted as a full day, and a daytime visit as a half-day (as is typically done by state family courts in determining child support). The number of daytime visits per week \((D) = (a - b)/2\) because parents reported for an average 2-week period, the number of overnights per week \((O) = b/2\), and yearly percent of time with father \((D × .5 × 52) + (O × 52)/365\).

**Parenting time in childhood and early adolescence.** Parents and students responded to these items. For each of two age periods (5 to 10 years old, and 10 to 15 years old) participants were told to consider the most typical living arrangement that the child had during that time, and were asked the same above questions about (a) days, and (b) overnights. They were also asked (c) “Considering the 15 weeks of school vacation (Christmas, 2 weeks; spring, 1 week; summer, 12 weeks),” and (d) “What percentage of time the child spent with dad during those vacation weeks that were different from the regular schedule?” An oversight was counted as a full day, a daytime visit as a half-day, and a vacation day as a full day. During the school year the number of daytime visits per week \((D) = (a - b)/2\) and overnights \((O) = b/2\). The number of full days per week during “different vacation” weeks \((V) = d × 7\). Yearly percent of time with father \(= (D × .5 × (52 - c)) + (O × (52 - c)) + (V × c)/365\).

**Parent conflict.** Parents reported frequency of conflict at four time periods: (a) “Before the final separation,” (b) “During the final separation,” (c) “The first two years after,” and (d) “The next three years after” on a 7-point Likert-type scale ranging from 0 (no conflict), to 3 (occasionality conflict), to 6 (almost always conflict), with an option for “can’t remember/does not apply.” Because a few parents responded “can’t remember/does not apply” to one or more time periods, and because conflict decreased over time, the overall conflict score in substantive analyses was the mean of the standardized scores on whichever of the four questions were answered.

**Parental disagreement about overnights.** Parents responded to one question about the level of disagreement between them regarding the number of overnights during infancy: “Mark the statement that best describes how you and your child’s other parent decided how many overnights the child should spend at dad’s home during years 0 to 3?” (response options were 0 = mostly agreed, 1 = had disagreements, but arrived at mutually agreeable solution, 2 = never came to agreement, one of us got what he or she wanted mostly because the other one gave in, 3 = final decision came out of either mediation, custody evaluation, attorney-led bargaining, or court hearing.). Because these four response options do not form an interval scale, they were dichotomized into “agreed” (response options 0 and 1) and “disagreed” (response options 2 and 3) to form the disagreement score used in substantive analyses.

Parents were also asked one question about the nature of their disagreement:

If you disagreed, even just initially, was it because (a) father wanted child to spend more overnights at his home but mother wanted child to spend less overnights at his home, (b) father wanted child to spend less overnights at his home but mother wanted child to spend more overnights at his home.

**Parent education.** Parents reported their own education using a 13-item scale ranging from (0) “never attended school,” to (5) “high school graduate,” to (8) “Associate degree” to (9) “college degree (BS/BA),” to (13) “MD, JD, DO, DDS, or Ph.D.” Education was dichotomized into parents without a bachelor’s degree and those with a bachelor’s degree.

**Students Responded to All of the Following Measures**

**Parental caring.** The 12-item Care subscale of the Parental Bonding Instrument (PBI) provided a measure of the quality of the parent-child relationship. The PBI is a self-report instrument with well-documented reliability and validity (Parker, 1989). Students rated how well each statement (e.g., “Spoke to me in a warm and friendly voice,” “Did not help me as much as needed”) described their mother and father “as you remember your [mother/father] in your first 16 years.” Response options are 0 (very unlike), 1 (moderately unlike), 2 (moderately like), and 3 (very like). Negative items were reverse scored so that higher scores reflect higher parental caring. Reliabilities for mother (\(\alpha = .94\)) and father (\(\alpha = .95\)) were excellent.

**Parent-child interaction.** This scale was developed for the current study and included three items assessing mutual desire and enjoyment in spending time together. Students rated how well each statement described their mother and father “as you remember your [mother/father] in your first 16 years.” Items were “Did a lot of things with me, like working together on projects, going on trips, playing games or sports,” “Really enjoyed spending time with me,” and “It was a lot of fun spending time with my [mom/dad].” Response options are 0 (very unlike), 1 (moderately unlike), 2 (moderately like), and 3 (very like). Reliabilities for mother (\(\alpha = .86\)) and father (\(\alpha = .88\)) were excellent.

**Mattering.** This 7-item scale assesses how much children feel they matter to each of their parents (Marshall, 2001; Marshall, 2004; Rosenberg & McCullough, 1981). The reliability and validity of the scale was demonstrated by Schenck et al. (2009) and Suh et al. (2016), who found that adolescents’ perceived mattering to parents was negatively associated with internalizing and external-
izing symptoms. Items are rated on a 5-point scale, 0 (strongly agree) to 4 (strongly disagree). Sample items included: “My (dad/mom) really cares about me” and “I’m not that important to my (dad/mom).” “Negative items were reverse scored so that higher scores reflect higher perceived mattering. Reliabilities for mothers ($\alpha = .90$) and for fathers ($\alpha = .96$) were excellent.

Parental blame. We used the 6-item Maternal Blame and Paternal Blame scales from the Painful Feelings About Divorce Scale, a self-report instrument with well-documented reliability and validity (Laumann-Billings & Emery, 2000). Sample items include “Sometimes I feel angry at my [mother/father] for my parents’ divorce” and “I still have not forgiven my [mother/father] for the pain s/he caused my family.” Response options are 0 (strongly disagree), 1 (disagree), 2 (neutral), 3 (agree), and 4 (strongly agree), with the additional response option “does not apply.” Following Laumann-Billings and Emery (2000), “does not apply” was treated as missing data, and the scale mean was calculated on the remaining items. Reliabilities for mothers ($\alpha = .90$) and for fathers ($\alpha = .91$) were excellent.

Overall relationship. This scale included two items: “How well do you get along with your [mom/dad]?” (response options 0 [extremely well], to 4 [not well at all], with an additional response option “not applicable/no contact”), and “What kind of relationship do you have with your [mom/dad]?” (response options 0 [the worst], to 3 [just okay], to 6 [the best], with an additional response option “not applicable/no contact”). The first item was reversed scored and the scores were recalibrated to fit the response scale of the second item. Fourteen students chose the option “not applicable/no contact” for one or both items referring to their relationship with their fathers. Because these responses indicated that the student had no relationship with their fathers they were recoded as 0. Reliabilities for mothers ($\alpha = .93$) and for fathers ($\alpha = .97$) were excellent.

Results

Reliability of Parent Reports

All cases in which both parents reported were used to determine how well parents agreed. Correlations between parents’ reports on all variables were sufficiently substantial to justify using mothers’ reports for the substantive analyses; when the father was the only parent reporting we used his report. Correlations between parents’ reports of overnights at each of the first three ages were $r_s > .84$ ($N_s = 15, 17, 33, ps < .001$), and correlations for daytime visits were $r_s = .46$ to .90, $ps < .01$. The correlation between parents’ reports of yearly parenting time at ages 5 to 10 was .72, and at ages 10 to 15 was .86 ($N_s = 37, ps < .001$). Mothers’ reports of parenting time at ages 5 to 10, and 10 to 15 also agreed with students’ reports ($r_s > .81, N = 159, ps < .001$), as did fathers’ reports ($r_s > .83, N = 46, ps < .001$), replicating Fabricius and Luecken (2007). Correlations between parents’ reports of the frequency of parent conflict at each of the four time periods were $r_s = .40, .46, .49, .69$ ($N_s = 35$ to 36), $ps < .05$.

Regarding disagreements about overnights during the first three years, 73% of all parents reported the same response category out of the four categories of levels of disagreement, and 87% reported the same category when the categories were dichotomized into “agreed” (Categories 0 and 1) and “disagreed” (Categories 2 and 3). Among the families selected for substantive analyses, as reported by mothers when both parents reported, 64% mostly agreed on overnights; 11% had disagreements but arrived at a mutually agreeable solution; 6% never came to agreement and one parent got what he or she wanted mostly because the other one gave in; and 19% arrived at a final decision by either mediation, custody evaluation, attorney-led bargaining, or court hearing. Among the families selected for substantive analyses, 75% of mothers and 100% of fathers reported that the father had wanted more overnights.

The mean levels of parenting time tended to differ between mother- and father-reports, as is commonly found (e.g., Braver & O’Connell, 1998). At the first three ages, fathers tended to report more overnights in a typical 2-week period ($M_s = 3.1, 3.4, 3.9$, respectively) than mothers ($2.1, 2.6, 2.5$; $t_s(14$ to 32) = 1.87 to 3.97, $ps = .080$ to .000). However, reports of daytime visits did not differ, $t_s < 1.35$. Fathers reported more yearly parenting time than mothers at ages 5 to 10 ($M_s = .29, .22$, respectively) and 10 to 15 ($t_s(18$ and .22; $t_s(36) = 2.44$ and 2.51, $ps < .05$). Students’ reports were in between their parents’ reports at ages 5 to 10 (.26) but were identical to fathers’ reports at ages 10 to 15 ($t_s(28$).

The mean levels of conflict did not differ significantly between mothers’ and fathers’ reports. A 2 (parent) $\times$ 4 (time period) repeated measures analysis of variance (ANOVA) on frequency of parent conflict revealed only an effect of time period, $F(3, 96) = 18.81, p < .001$, and no effect of parent or interaction between parent and time period ($F_s < 1$). Conflict decreased over the four time periods, $M_s = 3.49, 3.96, 3.15, 2.65$, respectively. The reported decrease in the above analysis came only from cases in which both parents reported, but it was similar to the decrease reported by all parents who were selected for substantive analyses (in which we used mothers’ reports when both parents reported), $M_s = 3.81, 3.94, 3.02, 2.53$, respectively; $F(3, 321) = 41.427, p < .001$. The means indicate that 3 to 5 years after the separation, parents reported that the frequency of their conflict was midway between “rarely” and “occasionally.”

Substantive Analyses

Cases for substantive analyses were those in which the parents permanently separated before the child was 3 years old; and the child had at most equal parenting time with the father then and thereafter (unless specified otherwise); and there was evidence that the father had not been absent from the child’s life. When only the mother or both parents responded we used the mother’s reports, and when only the father responded we used his reports.

Rates of parenting time. Any day that the child had parenting time at the father’s home could include spending the night (i.e., “overnight”) or not (i.e., “daytime”). (Fathers with neither overnights nor daytime visits could still have had parenting time elsewhere, such as at the mother’s home.) Figure 2 shows the proportion of children at each of the first three age periods in each combination of simple presence or absence of daytime and overnight parenting time at the father’s home in a typical 2-week period. The $N_s$ increase with age because 52 parents reported they were separated when children were under 1 year, an additional 29 reported they were separated when children were 1 year old (raising the $N_s$ to 81), and an additional 35 reported they were separated when children were 2 years old (raising the $N_s$ to 116). As children got older,
proportionally fewer of them at each age were in the first two
combinations (i.e., those with no overnight parenting time) and
more were in the latter two combinations (i.e., those with over-
nights). By age 2, almost two thirds of children had some over-
night parenting time.

Not only did the proportion of children with any overnights
increase from year to year as shown above, but also the number
of overnights per child increased. Figure 3 shows the proportion
of children at each age with different numbers of overnights at
the father’s home in a typical 2-week period. The increase with
age was due to parents who separated when the child was under 1 year
of age. They increased the number of overnights during the next
two years (M = 1.06, 1.39, and 1.73, respectively; F(2, 102) =
8.723, p < .001). Parents who separated when the child was 1 year
old did not increase the number of overnights during the next year
(M = 1.93 and 2.10, respectively; t(28) = .895, p = .378). Parents
who separated when the child was 2 years old provided a
mean of 2.17 overnights. By the time children were 2 years of age,
the number of overnights they had did not depend on how long
their parents had been separated. A three (age at separation: under
1 year, 1-year-old, 2 years old) one-way ANOVA on number of
overnights did not increase the number of overnights during the next
year (M = 1.06, 1.39, and 1.73, respectively; F(2, 102) =
8.723, p < .001). Parents who separated when the child was 1 year
old did not increase the number of overnights during the next year
(M = 1.93 and 2.10, respectively; t(28) = .895, p = .378). Parents
who separated when the child was 2 years old provided a
mean of 2.17 overnights. By the time children were 2 years of age,
the number of overnights they had did not depend on how long
their parents had been separated. A three (age at separation: under
1 year, 1-year-old, 2 years old) one-way ANOVA on number of
overnights at the two endpoints of children’s first three
years; that is, when they were infants (under 1 year of age) and
when they were toddlers (2 years of age). Correlations with day-
time parenting time are not shown because none were significant.
These correlations show that overnights during infancy and tod-
lerhood have similar associations with these aspects of long-term
parent–child relationships. Regarding the father-child relationship,
more overnights during infancy, as well as during toddlerhood,
were associated with better father-child relationships in young
adolescence on all scales, with one exception; that is, overnights
during infancy were positively but not significantly (r = .233)
associated with ratings on the overall relationship scale.

Regarding the mother-child relationship, overnights during in-
fancy were positively but not significantly associated with better
mother-child relationships, with two exceptions; that is, the asso-
ciation with mother-child interaction was significant (r = .284),
and the association with maternal blame was in the direction of
more blame (r = .060). Overnights during toddlerhood were
significantly associated with better mother-child relationships on
all scales, with one exception; that is, the association with maternal
blame was nonsignificant and in the direction of more blame (r =
.126). The highest level of maternal blame, at 6 to 7 overnights
during toddlerhood (M = 1.11), indicates that on average students
did not blame mothers for problems in the family because the
response option “1” meant “disagree” with the scale item assigning
blame. The highest maternal blame rating by any individual stu-
dent who had six to seven overnights during toddlerhood was “2,”
which meant “neutral.”

In order to provide assurance that these five scales tapped into
the same common factor of security in father-child relationships
and mother-child relationships, as well as to simplify substantive
analyses, a principal-axis factor analysis with a promax rotation
was conducted on the parent-child relationship measures. A two-
factor solution (Table 2) accounted for over 67.9% of the variance
with eigenvalues of 4.21 and 3.16, and the factors clearly repre-
sented the relationship with father and the relationship with
mother. Students’ scores on each factor (regression method) were
saved, and these factor scores were used in the substantive anal-
yses. Factor scores are calculated by standardizing each input
scale, which sets the means for both the mother and father factors
at 0 and the standard deviations at 1.

Parenting time and parent-child relationships. Table 3 shows
the correlations, means, and standard deviations of the measures
used in substantive analyses. (Questions about parent
education and disagreements about overnights were inadvertently omitted from approximately 30 surveys.) Parents with less conflict, more education, or more agreement about overnights did not provide more overnights either when children were toddlers (2 years old) or when they were infants (under 1 year old). More overnights at the father’s home in infancy and toddlerhood, and more parenting time with fathers in childhood and adolescence were all related to better father-child relationship factor scores in young adulthood. More overnights in toddlerhood were related to better mother-child relationships in young adulthood. Students who had more overnights when they were infants also tended to have more overnights when they were toddlers (r = .77). Overnights at both ages correlated highly (rs > .66) with the proportion of yearly parenting time in childhood and adolescence. Daytime parenting time during toddlerhood was unrelated to overnights during infancy or toddlerhood, but was positively correlated (rs > .25) with the proportion of yearly parenting time in childhood and adolescence. Females reported poorer relationships with fathers. More parent disagreement about overnights was associated with more parent conflict and with younger ages at separation.

We used a multiple regression to test whether overnight parenting time when children were 2 years old predicted later relationships with fathers during young adulthood while controlling for children’s sex, daytime parenting time with fathers at age 2, and yearly percentage of parenting time with fathers during childhood and adolescence. The dependent variable was the father-child relationship factor scores. We also controlled for parent education, parent conflict, disagreement about overnights, and age at separation, because those correlations with father-child relationship scores, while nonsignificant, were at the level of approximately r = .15. Table 4 shows that more overnights at age 2 as well as more yearly parenting time at ages 10 to 15 each made independent contributions to better father-child relationships in young adulthood, beyond what is explained by the other control variables.

Table 5 shows the results for mother-child relationships. We also controlled for children’s sex, daytime parenting time with fathers at age 2, and yearly percentage of parenting time with fathers during childhood and adolescence. We did not control for parent education, parent conflict, disagreement about overnights, and age at separation because those correlations with mother-child relationship scores were only r = .10 or lower. Results showed that more overnights at age 2 as well as more daytime parenting time with fathers at age 2 each made independent contributions (although the effect for daytimes was marginally significant, p = .074) to better mother-child relationships, beyond what is explained by children’s sex and yearly parenting time during childhood and adolescence.

Figure 4 shows the significant relations revealed in the above analyses between overnights with father at age 2 and the quality of each parent-child relationship in young adulthood. There is a linear, “dose-response” relation between more overnights and higher quality father-child relationships; that is, each additional overnight is matched by an increase in father-child relationship quality. The relation for mothers is a “threshold” pattern, in which absence of overnights is associated with worsened mother-child relationships, and presence of any overnights, regardless of the number, is associated with better mother-child relationships. The threshold pattern for mothers is likely due to ceiling effects in the raw scores on the five mother-child relationship scales (see Table 1). Figure 4 should not be misread as indicating that relationships with fathers surpassed mothers at two overnights. The mean of the factor scores on each relationship factor is set to zero. Figure 4 reveals that the highest-level father-child relationships were achieved at equal overnights (6 to 7 overnights in a 2-week

Table 1
Means and Standard Deviations for Parent-Child Relationship Scales and Correlations With the Number of Overnights at the Father’s Home

<table>
<thead>
<tr>
<th>Scales</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
<th>Under 1 year (N = 52)</th>
<th>2 years old (N = 116)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father caring</td>
<td>0–3</td>
<td>1.59</td>
<td>.87</td>
<td>.295*</td>
<td>.457***</td>
</tr>
<tr>
<td>Mother caring</td>
<td></td>
<td>2.43</td>
<td>.58</td>
<td>.186</td>
<td>.202*</td>
</tr>
<tr>
<td>Father–child interaction</td>
<td>0–3</td>
<td>1.73</td>
<td>.97</td>
<td>.344*</td>
<td>.440**</td>
</tr>
<tr>
<td>Mother–child interaction</td>
<td></td>
<td>2.37</td>
<td>.66</td>
<td>.284*</td>
<td>.208*</td>
</tr>
<tr>
<td>Mattering to father</td>
<td>0–4</td>
<td>2.63</td>
<td>1.31</td>
<td>.419**</td>
<td>.476***</td>
</tr>
<tr>
<td>Mattering to mother</td>
<td>0–4</td>
<td>3.74</td>
<td>.47</td>
<td>.192</td>
<td>.176*</td>
</tr>
<tr>
<td>Paternal blame</td>
<td>0–4</td>
<td>1.84</td>
<td>1.07</td>
<td>−.389**</td>
<td>−.357***</td>
</tr>
<tr>
<td>Maternal blame</td>
<td></td>
<td>6.4</td>
<td>.76</td>
<td>.060</td>
<td>.126</td>
</tr>
<tr>
<td>Overall relationship with father</td>
<td>0–6</td>
<td>3.33</td>
<td>1.94</td>
<td>.233</td>
<td>.446***</td>
</tr>
<tr>
<td>Overall relationship with mother</td>
<td></td>
<td>5.01</td>
<td>1.03</td>
<td>.088</td>
<td>.207*</td>
</tr>
</tbody>
</table>

† p = .058, * p < .05, ** p < .01, *** p < .001.

Table 2
Factor Loadings of the Parent-Child Relationship Scales on the Two Factors

<table>
<thead>
<tr>
<th>Scales</th>
<th>Relationship with father</th>
<th>Relationship with mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father caring</td>
<td>.804</td>
<td>.215</td>
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<tr>
<td>Mother caring</td>
<td>.111</td>
<td>.926</td>
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<td>Father–child interaction</td>
<td>.906</td>
<td>.126</td>
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<tr>
<td>Mother–child interaction</td>
<td>.168</td>
<td>.841</td>
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<tr>
<td>Mattering to father</td>
<td>.912</td>
<td>.208</td>
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<tr>
<td>Mattering to mother</td>
<td>.130</td>
<td>.670</td>
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<td>Paternal blame</td>
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<td>.006</td>
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<td>Maternal blame</td>
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<td>−.625</td>
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<tr>
<td>Overall relationship with father</td>
<td>.891</td>
<td>.079</td>
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<tr>
<td>Overall relationship with mother</td>
<td>.168</td>
<td>.815</td>
</tr>
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</table>
period), at which point mother-child relationships remained at their highest level. The overall raw means (converted to percentages) across the five parent-child relationship scales at six to seven years old were 87% for mother-child relationships, and 83% for father-child relationships. Thus, only in the case of essentially equal overnight levels at age 2 did children grow up to have essentially equally strong, and optimal, relationships with both of their parents.

We next tested whether the positive associations between overnights at age 2 and parent-child relationships differed depending on whether parents (a) were in high conflict, (b) had substantial disagreements about overnights, (c) were more educated, or (d) separated when children were under 1 year old, 1 year old, or 2 years old. We tested for moderation by each of these four variables separately, by adding the interaction between that variable and overnight levels at age 2 to the father-child relationship and mother-child relationship regressions reported above. We created the interaction terms after centering the variables to reduce multicollinearity (Aiken & West, 1991). None of the interaction terms approached significance for father-child relationship or mother-child relationships (05 < ts < 1.04; .958 > ps > .300). Figures 5 and 6 illustrate the absence of moderation by conflict and disagreement. (Figures for education and age at separation are similar and available upon request.) Figure 5A shows that the positive linear relation between number of overnights at age 2 and father-child relationships is clearly preserved for parents with low as well as for those with high levels of parent conflict, and Figure 6A shows that it is also preserved for parents who agreed as well as for those who disagreed about overnights. It is evident that when there was high conflict or disagreement, more overnights were required for father-child relationships to attain the same level as when there was less conflict or agreement. (The same applies for education and age at separation: Less education and earlier separation required more overnights at age 2 to attain the same level of

<table>
<thead>
<tr>
<th>Measures</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
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<th>7</th>
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<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
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<tr>
<td>1. Overnights when under 1 year</td>
<td>.768**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td>2. Overnights when 2 years old</td>
<td>.042</td>
<td>.002</td>
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<tr>
<td>3. Daytimes when 2 years old</td>
<td>.691**</td>
<td>.768**</td>
<td>.265**</td>
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<td>4. PT 5–10 years</td>
<td>.617**</td>
<td>.663**</td>
<td>.249**</td>
<td>.875**</td>
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<td>5. PT 10–15 years</td>
<td>.386</td>
<td>.500**</td>
<td>.156</td>
<td>.525**</td>
<td>.547**</td>
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<td>6. F-C Rel</td>
<td>.141</td>
<td>.199**</td>
<td>.106</td>
<td>.082</td>
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<td>7. M-C Rel</td>
<td>−.206</td>
<td>−.143</td>
<td>.033</td>
<td>−.120</td>
<td>−.158</td>
<td>−.211*</td>
<td>−.165</td>
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<td>8. Child sex</td>
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<td>.026</td>
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<td>.027</td>
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<td>9. Parent education</td>
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<td>10. Parent conflict</td>
<td>−.137</td>
<td>.021</td>
<td>.052</td>
<td>.037</td>
<td>.078</td>
<td>−.197</td>
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<td>.094</td>
<td>−.016</td>
<td>.390**</td>
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<td>11. Parent disagreement</td>
<td>.090</td>
<td>.047</td>
<td>.119</td>
<td>.105</td>
<td>−.129</td>
<td>−.068</td>
<td>.060</td>
<td>−.032</td>
<td>−.004</td>
<td>−.211*</td>
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<td>12. Age at separation</td>
<td>1.058</td>
<td>1.957</td>
<td>.918</td>
<td>.170</td>
<td>.142</td>
<td>.000</td>
<td>.000</td>
<td>1.638</td>
<td>.545</td>
<td>.010</td>
<td>.253</td>
<td>1.853</td>
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<td>Means 1.058</td>
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<td>.918</td>
<td>.170</td>
<td>.142</td>
<td>.000</td>
<td>.000</td>
<td>1.638</td>
<td>.545</td>
<td>.010</td>
<td>.253</td>
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<td>SDs</td>
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Note. PT 5–10 years = yearly proportion of parenting time at father’s home from age 5 to 10; PT 10–15 years = yearly proportion of parenting time from age 10 to 15; F-C Rel = father–child relationship factor score; M-C Rel = mother–child relationship factor score; sex: 1 = male, 2 = female; Parent education: 0 = without bachelor’s degree, 1 = with bachelor’s degree; Parent conflict = mean of the standardized scores of frequency of parent conflict from before to 5 years after the final separation; Parent disagreement = parental disagreement on the number of overnights at father’s home: 0 = agree, 1 = disagree; Age at separation: 0 = under 1 year, 1 = 1 year old, 2 = 2 years old. * p < .05. ** p < .01.

### Table 4

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<td>.250</td>
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<td>Sex</td>
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<td>Parent education</td>
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<td>Parent conflict</td>
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<td>Parent disagreement</td>
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Note. Dependent variable is father-child relationship factor scores. Standardized β reported. Sex: 1 = male, 2 = female; PT 5–10 years = yearly proportion of parenting time at father’s home from age 5 to 10; PT 10–15 years = yearly proportion of parenting time from age 10 to 15; Parent disagreement = parental disagreement on the number of overnights at father’s home: 0 = agree, 1 = disagree; Parent education: 0 = without bachelor’s degree, 1 = with bachelor’s degree; Age at separation: 0 = under 1 year; 1 = 1 year old; 2 = 2 years old.

### Table 5

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Note. Dependent variable is mother-child relationship factor scores. Standardized β reported. PT 5–10 years = yearly proportion of parenting time at father’s home from age 5 to 10; PT 10–15 years = yearly proportion of parenting time from age 10 to 15.
father-child relationships as when there was more education and later separation.) The threshold pattern for mother-child relationships is likewise clearly preserved for parents with low as well as for those with high levels of parent conflict (Figure 5B), and for parents who agreed as well as for those who disagreed about overnights (Figure 6B).

Finally, we tested whether overnights during infancy (under 1 year old) showed the same relation to parent-child relationships as overnights during toddlerhood (2 years old). We divided children into two groups based on their age at parents’ separation; that is, those whose parents were separated during infancy, and those whose parents separated when they were either 1 or 2 years old. For the infancy group we used the number of overnights they had during infancy. For the 1- and 2-year-old groups, we used the number of overnights they had at age 2. We tested whether overnights during infancy showed the same relation to parent-child relationships as overnights during toddlerhood by adding the main effect of this new age at separation variable and the interaction between that variable and the number of overnights at each age to the father-child relationship and mother-child relationship regressions reported above. The interaction was not significant for father-child relationships, $t = .60, p = .549$, or for mother-child relationships, $t = .31, p = .756$. Figure 7 illustrates the absence of moderation by infant versus toddler overnights. (The “3 to 5” and “6 to 7” categories of overnights are collapsed in Figure 7 because of the smaller $Ns$ for parents who separated when children were under 1 year old.) Figure 7A shows that the positive linear relation between overnights and father-child relationships is clearly preserved for infant and toddler overnights, and Figure 7B shows that the threshold pattern for mother-child relationships is likewise clearly preserved for infant and toddler overnights.

**Discussion**

The current study showed that more overnight parenting time with fathers, up to and including equal numbers of overnights with both parents, when children were toddlers (2 years of age), as well as when they were infants (under 1 year of age), were associated with more secure relationships with each of their parents during the challenges and uncertainties of emerging adulthood (Arnett, 2004). Those young adults who had more overnights felt closer to their parents, were more likely to remember their parents as having been warm and responsive during their childhood and as having enjoyed spending time together, blamed their parents less for family problems, and now were more certain that they were important and mattered to their parents.

Overnights at age 2 made an independent contribution to better parent-child relationships over and above the subsequent parenting time in childhood and adolescence. This means that “lost” overnight parenting time at age 2 was not made up by parenting time later. Overnights at age 2 also made an independent contribution to better parent-child relationships over and above any other benefits conferred by more parent education, less parent conflict up to five years postseparation, more parent agreement about overnights, later parent separations (in the child’s third rather than first or second year), or child sex. Importantly, the same strength and patterns of associations between overnights at age 2 and parent-child relationships occurred regardless of conflict, disagreement...
about overnights, college education, and age at separation. This means that it is not true that overnights “worked” only for parents who had less conflict, or more agreement about overnights, or were more educated. There were no benefits to the father-child relationship associated with daytime visits. This means that more daytime visits did not make up for fewer overnights. Finally there was a marginally significant association between more daytime visits when children were toddlers and better mother-child relationships.

The question arises why the current study showed benefits of overnights for mothers and fathers during infancy and toddlerhood while each of the previous studies included mostly ambiguous, null, or contradictory findings. The only two indications of harm to the father-child relationship associated with daytime visits. This means that more daytime visits did not make up for fewer overnights. Finally there was a marginally significant association between more daytime visits when children were toddlers and better mother-child relationships.

The question arises why the current study showed benefits of overnights for mothers and fathers during infancy and toddlerhood while each of the previous studies included mostly ambiguous, null, or contradictory findings. The only two indications of harm to the mother-child relationship were ambiguous because they were obtained with measures that lack demonstrated validity (i.e., “visual monitoring” in McIntosh et al., 2010, 2013, and mother ratings of attachment behaviors in Tornello et al., 2013). In the current study, three of the five parent-child relationship measures have previously demonstrated validity (Laumann-Billings & Emery, 2000; Parker, 1989; Schenck et al., 2009; Suh et al., 2016); the validity of the other two for both parents is established by their correlations with the first three, as revealed by the factor analysis (see Table 2).

An explanation for some of the null and contradictory findings appears to be that the previous studies assessed short-term rather than long-term associations with overnights. Solomon and George (1999) found no association between attachment and overnights but they assessed both contemporaneously, which might not allow time for overnight parenting time to contribute to a history of responsive parenting and more secure attachments. The assessments of child behaviors (i.e., social problems, irritability, wheezing, persistence, problem behaviors, and positive behaviors) produced mostly contradictory findings, suggesting that the short-term assessments of those variables might have picked up temporary and inconsistent child behavioral adjustment difficulties in response to overnights.

The findings disconfirm the hypothesis (George, Solomon, et al., 2011; Main et al., 2011; Sroufe & McIntosh, 2011) that more overnights away from mothers should harm the mother-child relationship. The current findings provided a strong disconfirmation,
not only because benefits accrued to the mother-child relationship, but also because they were associated with overnights specifically during infancy. Overnights during infancy should have been the most harmful because infants lack the language and cognitive skills to understand time, recall the past, and anticipate future events. The finding that overnights during infancy were also associated with the quality of father-child relationships is contrary to the monotropy hypothesis for the following reason: in our sample mothers were most often the primary caregivers, and according to monotropy, infants should not have been developing simultaneous attachment relationships with fathers; however, the associations of overnights during infancy with the quality of both parent-child relationships suggests that infants were developing attachment relationships with both parents. This is consistent with other theoretical (e.g., Waters & McIntosh, 2011) and empirical (e.g., Kochanska & Kim, 2013; Main & Weston, 1981) evidence that infants form attachment relationships with mothers and fathers simultaneously.

There are developmentally plausible processes by which overnights could lead to long-term benefits. Overnights allow the father to learn about the child by assuming the role of caregiver. In support of this, a review of 14 papers describing the effectiveness of 12 interventions for fathers of infants and toddlers (Magill-Evans, Harrison, Rempel, & Slater, 2006) revealed that active participation with or observation of his child enhanced the father’s interactions with and positive perceptions of the child. Brazelton (e.g., Worobey & Brazelton, 1986) has long argued, consistent with modern transactional models of development (Sameroff, 2010), that how well parents learn about the child in the early years can alter the trajectory of their future relationships because it provides the foundation for coping with changes in the years to come. In support of this, Boyce et al. (2006) found that high father involvement during infancy helped protect children from the development of mental health problems at age 9. Regarding benefits to the mother-child relationship, overnights provide respite from caring for an infant alone, which could help the mother maintain a higher level of responsive parenting.

Finally, the finding that the association between overnights and parent-child relationships was the same for parents with low versus high conflict replicates Fabricius and Luecken’s (2007) findings for father-child relationships when parents separated before children were 16 years old. Both studies suggest that more parenting time is needed to overcome the harmful effects of parent conflict on father-child relationships, as illustrated in Figure 5A (e.g., in low-conflict families a father-child relationship score of .80 was achieved at “3 to 5” overnights, but in high conflict families it took “6 to 7” overnights to achieve that score). The same principle applies to parent disagreement about overnights (Figure 6A), as well as to parent education and age at separation (figures available upon request). We did not find statistically significant evidence of stronger negative associations between parent conflict and father-child relationships, \( r = -.143, p = .13 \) than mother-child relationships, \( r = .103, p = .28 \), and so did not replicate the so-called “father vulnerability” effect (Cummings, Goeke-Morey, & Raymond, 2004). However, the conflict measured here occurred many years before we assessed relationships, and had largely dissipated by five years after the parents’ separation.

**Implications for Policy and Practice**

McIntosh, Smyth, and Kelaher (2015) rightly state, “The question at the heart of the debate is whether adequate evidence of the reverse exists: that spending regular and frequent overnights with both parents is beneficial to early development, and should occur at any age” (p. 111, emphasis in original). The current study provides that evidence by revealing long-term benefits to both parent-child relationships.

We used the approach recommended by Fabricius et al. (2010) of distinguishing parents who agreed about overnight parenting time and thus presumably volunteered for it, from parents who disagreed and had an arrangement imposed unwillingly upon one of them. This approach is not equivalent to a randomized experiment because courts would have presumably exercised some discretion in deciding the number of overnights for different families. However, that actually makes this approach more realistically informative because under any policy of rebuttable presumption for frequent overnights courts would always retain discretion. Thus, this approach can yield the information needed to inform decision makers about the wisdom of imposing overnight parenting time when the parents disagree.

When parents disagreed, those who had more overnights imposed upon them, up to and including equal overnights, had better parent-child relationships (see Figure 6). Overall, they had slightly but nonsignificantly more overnights at age 2 than parents who agreed (see Table 3), and in both groups 14% of children had equal overnights with each parent at age 2. These findings provide evidential support for policies to encourage frequent overnight parenting time for infants and toddlers, even when one parent disagrees. Two other findings strengthen that support: first, the overall “dose response” relation that we observed for father-child relationships (see Figure 4) is often indicative of causal processes. Second, the plausible explanatory mechanisms discussed above can account for how overnight parenting time could work to improve both long-term parent-child relationships. The consensus (Emery et al., 2016; Pruett & DiFonzo, 2014) that the four previous studies fail to provide sufficient evidence of harm due to overnights further strengthens the support for policies to encourage frequent overnights. The findings do not support policies that would urge parents and courts to generally be cautious about frequent overnight, or to begin with few overnights and gradually “step up” to frequent overnights, when there are no extenuating circumstances such as parent mental illness, previous absence from the child’s life, and so forth. The findings also indicate that normal parent conflict, disagreements about overnights, and children under 1 year of age are not circumstances that should require caution; on the contrary, more overnight parenting time appears to be needed in those cases.

The current findings provide guidance for professional practice even in the absence of new policies to encourage frequent overnight parenting time for infants and toddlers. The findings showed that the family characteristics that many divorce professionals and courts would assume to contraindicate overnights (i.e., high conflict, disagreement about overnights, child under 1 year old) were, in fact, not contraindicative (Figures 5, 6, and 7). Thus, even when parents present with high conflict, intractable disagreement about overnights, and a child under 1 year old, both parent-child relationships are likely to benefit in the long term from overnight
parenting time up to and including equally shared overnights at both parents’ homes. Other factors, such as parents’ mental health, could take precedence and override such orders or recommendations. If not, then strategies are available for mitigating parent conflict and educating parents to help ensure that they successfully adapt to overnight parenting time. To illustrate, one mother in our sample spontaneously added a narrative to her survey in which she described the approach and strategies used by the court and her divorce professional. Her survey indicated that she and the child’s father had the highest level of conflict before and during the separation, that they had disagreed because the father wanted more overnights, and that the court nevertheless had imposed four overnights per 2-week period starting when the child was under 1 year old. She then added,

Parents never talked again after court decision. Judge made sure that father picked up children from school and returned children to school. It worked and children grew up and did well. Children developed good relationships with both parents. Mother’s counselor gave great advice: Stay out of children’s relationship with father. They must figure it out. Mother was told that if she did well, her children would do well. Children never knew any different and dealt with difficult issues better than their peers (emphasis in original).

Limitations

The current data are silent about what happened in the intervening years. Thus we do not know whether more overnight separations from the mother produced any stress in the mother-child relationship in the younger years, but if it did it did not carry over into the young adult years. We also have no information about any processes by which overnight parenting time might have led to more responsive paternal and maternal parenting, and to more secure relationships, and thus we are unable to test hypotheses about those processes. Those tests await future studies.

The relationship variables were reported by students, and the parenting time and control variables were reported by parents, which is a strength of the study design because the measures are independent and thus the associations between parenting time and relationships cannot be attributed to any implicit theory or bias on the part of the respondents. However, the parents’ reports of parenting time, parent conflict, and disagreements about overnights were retrospective, raising the possibility of biased recall. This appears to be of minimal concern because the correlations between mothers’ and fathers’ independent reports were all significant, almost all are considered large ($r \geq .50$, Cohen, 1988), and many were quite substantial ($r > .80$). In addition, the parents’ reports of parenting time in childhood and adolescence correlated highly with students’ reports, replicating Fabricius and Lueckten (2007). Parenting time arrangements are likely to be recalled well because they are salient features of parents’ daily lives, the arrangements are ordered by the court, they are the basis for calculating child support awards, and they typically cannot be altered without demonstrating material change in circumstances. In sum, only the parents’, and not the students’, reports were retrospective, and there is evidence that parents’ reports were not affected by self-serving or recall biases to any practical degree.

Concerns (e.g., Garfinkel, McLanahan, & Wallerstein, 2004) that college students might give an overly optimistic picture of divorce are generally mitigated by the fact that the associations between parenting time and child adjustment outcomes do not differ for college and community samples (Bauserman, 2002; Laumann-Billings & Emery, 2000). Furthermore, the ability of the current study to test the hypothesis of harm stemming from frequent overnight separations is substantially immune to threats to sample representativeness because that hypothesis is based on the biology of the infant’s response to separation stress.

Developmental Science and Family Policy

Translating developmental findings and theory into family policy is a serious endeavor that requires careful consideration not only of data, but also of theoretical assumptions and social, legal, and historical contexts. We briefly comment below on how the policy recommendations by some attachment researchers in the 2011 special issue on attachment and overnights in Family Court Review (George, Solomon, et al., 2011; Main et al., 2011; Sroufe & McIntosh, 2011) fare in each of these respects.

Theoretical assumptions. While the basic tenets of modern attachment theory are well-supported, the specific assumption of monotropy—that the young child has only one primary attachment figure—is unwarranted. It persists in some quarters because of the absence of a good understanding of the simultaneous development of multiple attachments. The reason we lack such understanding is that we have few studies of children’s attachment to fathers. Main et al. (2011, p. 457) rightly advise that “attachment researchers . . . should increase their understanding of the father’s role in child development and security.”

Social context. Policy recommendations apply to specific social contexts. That requires considering factors that might alter developmental processes and lead to unintended consequences. In the present case, a critical factor is that the parents live in different households. In intact households a “primary” parent might do most of the childcare but the “secondary” parent remains available for an attachment relation to develop. In two households, primary caretaking by one parent necessitates proportionate absence of the other. The attachment researchers did not consider how attempting to maintain “primary” and “secondary” roles in the context of separated parents by allotting only a few brief daytime visits per week with fathers might alter attachment processes.

Legal context. Policy is implemented by existing legal institutions. Recommendations based on a naïve understanding of those realities can also have unintended consequences. The attachment researchers recommend that overnights with the father be gradually extended on a schedule that is responsive to each individual child’s developing needs and competencies, and monitored by valid, ongoing, assessments of parent-child attachment relationships. These envisioned services by courts and mental health professionals to craft, reevaluate, and enforce evolving parenting plans are far removed from reality. Perhaps only 5% of parents have their parenting plans decided by a judge (Maccoby & Mnookin, 1992). Even so, family courts are overburdened and unequipped to routinely revisit parenting plans. Mental health professionals are unqualified to offer state-of-the-art attachment assessments (Braver, 2014; George, Isaacs, & Marvin, 2011) even if most parents could afford them. In the current study, there was no overall increase in parenting time with fathers after age 3 despite the fact that many fathers initially wanted more parenting time. Thus, a policy of infrequent overnights for infants and
OVERNIGHT PARENTING TIME FOR INFANTS

Conclusions

A systems perspective needs to be applied to translating developmental findings and theory into family policy. This has not happened in the current policy debate about overnight parenting time for infants and toddlers. Recommendations by developmental scientists that are based on unwarranted theoretical assumptions, that overlook effects of social context in which policy is implemented, that make naïve assumptions about legal realities, and that ignore historically evolving social norms of parenting are not only unwise, but irresponsible.

The practitioners (McIntosh, Pruett, & Kelly, 2014) who initially drew the policy implications from the AFCC think tank on shared parenting stated, “We resist the urge to prescribe fixed formulas about numbers of overnights or age of commencement” (p. 256). Since then, however, policies that are being drafted in some state courts appear to be drifting instead toward Sroufe’s (Sroufe & McIntosh, 2011) formula that “prior to age 18 months, overnights away from the primary carer (sic) should be quite rare” (p. 472). For example, McIntosh, Pruett, et al. (2015) write, in a document entitled “Charting Overnight Decisions for Infants and Toddlers (CODIT)” on the Oregon state court web page, “Even when all parenting conditions are met, high numbers of overnights (more than weekly) are not generally indicated for young infants 0–18 months subject to family law disputes.” Some of the drift is due to overstatement of the previous findings. For example, Adam, Gray, Lysne, and Stahl (2016) misrepresent the Australian findings on the AFCC web page when they state that “multiple overnights with a non-primary parent are disruptive to the long-term development of very young children” (p. 15). In addition, it is difficult to discount the role that Sroufe and the other attachment researchers’ reputations likely play in this drift toward a fixed formula eschewing frequent overnight parenting time for infants and toddlers. A prescription against frequent overnights for children under 18 months of age is, of course, contradicted by the current findings, and policymakers should note that Sroufe has recently acknowledged this fact: “Your results would of course lead me to temper my conclusions” (personal communication, September 21, 2016).

References


Fabricius, W. V., Braver, S. L., Diaz, P., & Velez, C. E. (2010). Custody and parenting time: Links to family relationships and well-being after...


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