

NIH Public Access

Author Manuscript

Parent Sci Pract. Author manuscript; available in PMC 2011 January 1.

Published in final edited form as: *Parent Sci Pract.* 2010 January 1; 10(1): 60–77. doi:10.1080/15295190903014638.

Stability, Continuity, and Similarity of Parenting Stress in European American Mothers and Fathers across their Child's Transition to Adolescence

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SYNOPSIS

Objective—Experiencing some degree of parenting stress is virtually unavoidable, particularly as children enter early adolescence and assert their independence. In this study, we examined how parenting stress attributed to the parent, the child, or the dyad changed in mean level and relative standing across their child's transition to adolescence. We also compared mothers and fathers from the same families in terms of parenting stress and explored how one parent's stress affected the other parent's stress.

Design—Participants included 222 European American parents (111 mothers and 111 fathers), assessed when their children were 10 and 14 years old.

Results—Parenting stress was highly stable from 10 to 14 years. Total parenting stress increased across time, and was attributable to stress due to increased parent-child dysfunctional interaction, not parental distress or stress due to child behavior. Mothers and fathers agreed moderately in their relative standing and in the average levels of parenting stress in the three different domains of parenting stress at each time point. Mothers' and fathers' stress across domains were sometimes related.

Conclusions—Mothers' and fathers' increased parenting stress across their child's transition to adolescence seems to derive from parent-child interaction rather than qualities of the parent or the child per se. Finding ways to maintain parent-child communication and closeness may protect parents and families from increased stress during this vulnerable time.

INTRODUCTION

Most mothers and fathers value parenthood, are satisfied with their parental roles overall (Chilman, 1980), and are more committed to parenting than to work (Cinamon & Rich, 2002). However, more than half of parents also report that parenting is more difficult than their jobs (Chilman, 1980). Parenting stress (also called childrearing stress) is stress that can be attributed to parental difficulty in managing parenting tasks, to the behavior of the child, or to dysfunctional interaction between child and parent (Abidin, 1995; Deater-Deckard, 1998).

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Parenting stress is a universal experience for parents in all sociodemographic groups and contexts (Crnic & Low, 2002). Parents who experience even moderate amounts of parenting stress may experience lower marital quality (Layee, Sharlin, & Katz, 1996) and engage in less

stress may experience lower marital quality (Lavee, Sharlin, & Katz, 1996) and engage in less optimal parenting (Bonds, Gondoli, Sturge-Apple & Salem, 2002; Seigner, Vermulst, & Gerris, 2002). The children of stressed parents may also be adversely affected, though perhaps indirectly through parenting behaviors (Magill-Evans & Harrison, 2001; Putnick et al., 2008; Seigner et al., 2002). In this study, we explored the stability, continuity, and agreement of mothers' and fathers' parenting stress across their child's developmentally important transition to adolescence.

Stress Associated with Parenting Adolescents

Much research has focused on parenting stress in the transition to parenthood and during the early years of a child's life, but less is known about stress associated with parenting older children and adolescents. Relationships between parents and adolescents differ from parent-younger child relationships in that parents and adolescents interact less frequently and their interactions are marked by power shifts, fewer affective exchanges, and increased intense conflict (Collins & Russell, 1991; Collins, Madsen, & Susman-Stillman, 2002; Steinberg & Silk, 2002). Mothers and fathers both report that the adolescent period (14-18 years) is the most difficult stage to parent their child (Pasley & Gecas, 1984). Mothers also report feeling less competent as the parent of an adolescent than of a younger child (Ballenski & Cook, 1982).

Sources of Parenting Stress

Theoretically, within the family system there are three possible sources of parenting stress: the parent, the child, and interaction between the parent and child (Abidin, 1995; Deater-Deckard, 1998). Parental distress in the adolescent period (e.g., parental difficulty in managing parenting tasks) could be caused by coinciding parental mid-life identity crises (Silverberg & Steinberg, 1987) or marital maladjustment (Spanier, Lewis, & Cole, 1975; Umberson, Williams, Powers, Chen, & Campbell, 2005), which may make parenting more difficult. There is also evidence that parents' stress in the adolescent period is related to their children's bids for autonomy (Lo Coco, Ingoglia, Zappulla, & Pace, 2001; Pasley & Gecas, 1984; Small, Eastman, & Cornelius, 1988). Although it is normative in European American society for adolescents to begin to assert greater independence from their parents, parents may perceive attempts at separation (e.g., not taking parental advice, choosing deviant peers, staying out late) as problematic, or indicative of a difficult child. Finally, increased parent-child conflict and boundary negotiations in the adolescent period may stress parents (Laursen, Coy, & Collins, 1998; Steinberg & Silk, 2002). Because of the aforementioned changes in parent-adolescent relationships, all three sources of parenting stress may increase across the transition to adolescence. Assessing differential changes in the three possible sources of parenting stress (one of the main goals of this study) will elucidate the family processes that contribute to increased parenting stress across the transition to adolescence.

Stability and Continuity of Parenting Stress

As a child grows and develops, parenting stress can change across time. Stability and continuity (Hartmann & Pelzel, 2005; Wohlwill, 1973) reflect theoretically and statistically different realms of development over time (Bornstein, Brown, & Slater, 1996; McCall, 1981). Stability assesses consistency in relative individual standing across time (e.g., correlation *r*), and continuity assesses consistency in group mean level across time (e.g., paired *t*-test). By way of illustration, if parenting stress showed stability, those individual parents who displayed higher levels of parenting stress at one point in time would display higher levels of parenting stress at a second, later point in time. If parenting stress showed continuity, parents would display parenting stress at the same group mean levels at one point in time and at a second

point later in time. We evaluated parenting stress longitudinally in mothers and fathers, once when children were 10 and again when they were 14 years old, and we assessed parenting stress across time in terms of individual variation or relative standing (stability) and group mean level (continuity).

The family system is normally marked by notable stability. As Maccoby (1984) observed, "the family system, like any system, has self-stabilizing properties ... families stabilize around habitual patterns of interaction" (p. 326). Stability has been observed across many domains of family functioning. For example, Loeber et al. (2000) reported large stability estimates for physical punishment, supervision, communication, positive parenting, and a poor relationship with the primary caregiver from the time children were 9 to 14 years. Using a global measure of childrearing stress, Seigner et al. (2002) found moderate stability from 12 to 17 years for all combinations of parent-child dyads except mother-girl dyads, and moderate stability in parenting stress has been reported for mothers of younger children (Chang & Fine, 2007; Östberg, Hagekull, & Hagelin, 2007; Williford, Calkins, & Keane, 2007). We expected that mothers' and fathers' parenting stress would remain relatively stable across their child's transition to adolescence.

According to family systems theory, both stability and change are necessary for the family to thrive (Montgomery & Fewer, 1988). It is possible for members of families to maintain their relative standing on a construct while a group as a whole shifts in mean level. Thus, despite findings of stability in parenting stress across time, some researchers report that group mean levels of stress change across the same period. Two studies involving mothers and fathers of adolescents reported trends of higher global stress (discontinuity) for parents of older adolescents (14-17 years) than younger adolescents (11-12 years; Seigner et al., 2002; Small et al., 1988). Furthermore, parent-child relationships reportedly become less harmonious as children enter adolescence (Collins & Russell, 1991). These changes in parent-adolescent family dynamics could lead to increases in parenting stress across all three domains (child, parent, and interaction). Therefore, we predicted that parenting stress in all three domains would increase in mean level (i.e., discontinuity) from 10 to 14 years.

Mother-Father Agreement

Mothers and fathers share parenting responsibilities, and the experiences and actions of one are likely to affect the experiences and actions of the other. Likewise, one parent's stress about parenting is likely to be linked to, or spill over to, the other parent's stress. Generally, the literature about whether mothers and fathers agree in their relative standing and mean levels of parenting stress in adolescence is scant, unsystematic, and contradictory and there are no reports of agreement in relative standing of mothers and fathers of adolescents that we could find. Mothers and fathers of younger children generally experience similar relative standing on parenting stress (Crnic & Low, 2002; Deater-Deckard & Scarr, 1996), and findings from other domains indicate that mothers and fathers are at least somewhat concordant in their relative standing on related constructs, such as depression (Benazon & Coyne, 2000), attitudes (Eaves et al., 1999), impact of stressful life events (Burke, 1986), and parenting style (Gamble, Ramakumar, & Diaz, 2006; Sidani & Jones, 1995).

In terms of mean levels, most studies of parenting stress focus exclusively on mothers, or compare independent samples of mothers and fathers (as opposed to mothers and fathers from the same families), which complicates interpretations. Small et al. (1988) and Joshi and Guiterrez (2006) found no mean differences in the parenting stress of unpaired samples of mothers and fathers of adolescents. However, Seigner et al. (2002) reported that mothers and fathers in the same families experienced similar levels of childrearing stress when children were 12, but fathers experienced higher levels than mothers when children were 17. Mothers and fathers of younger (e.g., preschool) children generally experience similar mean levels of

parenting stress (Crnic & Low, 2002; Deater-Deckard & Scarr, 1996). Given the limited findings of different means and patterns of parenting stress for mothers and fathers of adolescents, we predicted that the two parents would agree in mean level and relative standing on parenting stress.

Child Gender

There is limited evidence that mothers and fathers of girls and boys differ in parenting stress. Most studies indicate that by itself child gender is not a relevant factor for parenting stress (Deater-Deckard & Scarr, 1996; McBride, Schoppe, & Rane, 2002; Mulsow, Caldera, Pursley, Reifman, & Huston, 2002; Williford et al., 2007). When differences are noted, mothers of boys report more parenting stress than mothers of girls (Crnic & Greenberg, 1990; Scher & Sharabany, 2005). Russell and Saebel (1997) suggested that parent and child gender interact to produce different effects. Seigner et al. (2002)'s finding that there was no stability of parenting stress for mother-girl dyads from 12 to 17 years, but moderate stability for other parent-child dyad combinations supports this position, but Small et al. (1988) found no interaction effect between parent and child gender for parents of 10- to 17-year-old children. With insufficient definitive research to support formal hypotheses, we explored the possibility that parents of daughters and sons experienced different stability, continuity, and agreement in parenting stress.

The Current Study

The current study had 6 related goals: to determine (1) whether the parenting stress of mothers and fathers of girls and boys was stable across the child's transition to adolescence, (2) whether mothers and fathers from the same family experienced similar relative standing on parenting stress, (3) whether the parenting stress of mothers and fathers of girls and boys was continuous in group mean level across the child's transition to adolescence, (4) whether mothers and fathers from the same family experienced similar mean levels of parenting stress, (5) whether stress in different domains were related across time for mothers and fathers separately, and (6) whether mothers' stress and fathers' stress affected one another across their child's transition to adolescence. To address these questions, we assessed European American mothers and fathers from two-parent families longitudinally using a differentiated parenting stress measure. Because parenting stress is an intrapsychic, subjective phenomenon that mandates self-report, we also employed parental social desirability bias as well as parental age, education, and neuroticism as statistical controls (see Chang & Fine, 2007; Mulsow et al., 2002; Östberg et al., 2007).

We chose to study European American two-parent families for several reasons. First, more than 72% of 10- to 14-year-olds in the United States are European American (U.S. Census Bureau, 2001). Parenting also varies, and has varying effects, on children and adolescents of different ethnicities (Lau, Litrownik, Newton, Black, & Everson, 2006; Park & Bauer, 2002). These differences could possibly obscure the effects of this study if ethnic groups were combined. Furthermore, ethnicity and socioeconomic status are often confounded (Leyendecker, Harwood, Comparini, & Yalcinkaya, 2005). Therefore, we took the first step of exploring stability, continuity, and agreement in European American families with the hope that this strategy will stimulate research of stability, continuity, and agreement of stress in parents of other adolescent populations.

METHOD

Participants

European American parents from 111 two-parent families (111 mothers and 111 fathers) independently completed questionnaires when their child (49 girls, 62 boys) was 10 (M = 10.25)

years, SD = .17) and again when their child was 14 years of age (M = 13.82 years, SD = .24). Families were originally recruited through mass mailings and newspaper advertisements from an East coast U.S. metropolitan area as part of an ongoing longitudinal study. At 10 years, 174 two-parent families were recruited (64% retention at age 14). At 10 years, all families for which there was data from both parents were included (not including step-parents), regardless of marital status. Of the 63 families that were excluded at 14 years, 43 were missing data from both parents, 4 were missing mother data only, and 16 were missing father data only. There was no difference in the 10-year parenting stress scores of mothers and fathers who were included and excluded at 14 years, ts(98.34 - 172) = -.56 - .91, ns.

At the first visit (when children were 10), mothers' ages averaged 41.50 years (SD = 4.11) and fathers' averaged 43.33 (SD = 5.24). All parents had completed high school; 86% of mothers and 82% of fathers had completed a 4-year college degree. Most (96%) families were intact at 10 years, and 2 families separated or divorced between 10 and 14 years. Family SES (Hollingshead, 1975) ranged from 30 to 66 and averaged 56.80 (SD = 7.99). Eighty percent of mothers and 95% of fathers worked outside the home. Families varied in size, with 13% containing only one child, 59% two, 22% three, and 6% four or more children.

Procedures

Parents provided data when their children were 10 and 14 years of age. As part of a larger study protocol, parents completed questionnaires about their parenting stress, personality, and social desirability bias. The parenting stress questionnaire was administered to both parents at 10 and 14 years, and the personality inventory and social desirability scale were administered to both parents at 14 years only. The 10-year parenting stress questionnaire was filled out by mothers during a home visit, and all other questionnaires (10-year father, and 14-year mother and father) were mailed to participants and returned at a laboratory visit or in the mail.

The Parenting Stress Index, Short Form (PSI-SF; Abidin, 1995) is a 36-item self-report questionnaire that was developed to assess stressors originating in the parent, child, and parent-child interaction. PSI-SF items are answered with respect to a specific child in the family and are rated on a 5-point scale from *strongly disagree* (0) to *strongly agree* (4). Three subscales – parental distress (e.g., "I feel trapped by my responsibilities as a parent."), difficult child (e.g., "My child generally wakes up in a bad mood."), and parent-child dysfunctional interaction (e.g., "My child rarely does things for me that make me feel good.") – are each computed as the sum of the 12 items comprising the scale. A total scale is also computed as the sum of all items. These scales have adequate internal consistency, $\alpha s = .80 - .87$, and 6-month test-retest reliability, rs = .68 - .85, and are highly correlated with the scales from the full-length PSI, rs = .73 - .92 (Abidin, 1995). Internal consistency (α) estimates for the current sample ranged from .79 to .93 for mothers and .82 to .94 for fathers.

The Jackson Personality Inventory-Revised (JPI-R; Jackson, 1994) was developed to provide a set of measures of personality likely to have a significant impact on a person's functioning. The revised version contains 300 *True-False* statements, representing 15 personality traits which may be grouped into five meaningful clusters that correspond with the Big Five trait clusters (e.g., Digman, 1990). Following the model outlined in Jackson (1994), the personality dimension of Neuroticism was estimated as the mean standard aggregate of three subscales (empathy, anxiety, and cooperativeness). Neuroticism was explored as a potential covariate for parenting stress.

The short form of the Social Desirability Scale (SDS-SF; Reynolds, 1982) uses 13 of the original 33 items in Crowne and Marlowe's (1960) Social Desirability Scale (SDS) to assess adults' tendencies to respond to questions in a socially desirable fashion. Statements like, "I=m always willing to admit when I make a mistake" are rated as *True* or *False*. Reliability of the

SDS-SF was reported to be .76, and the correlation with the full-length SDS .93 (Reynolds, 1982). The SDS-SF was explored as a potential covariate for parenting stress.

RESULTS

Preliminary Analyses

Prior to data analysis, mothers' and fathers' parenting stress variables and potential covariates were evaluated for missing data. In the sample of 111 families, 1.41% of the total data points were missing completely at random, Little's MCAR test $X^2(645) = 312.58$, p = 1.00; missing data points were imputed using the Expectation-Maximization algorithm (Dempster, Laird, & Rubin, 1977). Univariate and multivariate distributions of all variables were examined for normalcy, outliers, and influential cases, and transformations were applied to resolve problems of non-normalcy (Tabachnick & Fidell, 1996). Mothers' and fathers' parenting distress and total scores were re-expressed as square roots, and mothers' and fathers' dysfunctional interaction and difficult child were re-expressed as cube roots. For ease of interpretation, descriptive statistics are presented in the variables' original metrics.

A post-hoc power analysis was computed to determine whether our sample size provided enough power to detect a medium-sized effect in a $2 \times 2 \times 2$ (Child age by Parent gender by Child gender) repeated-measures ANOVA design (analogous to the linear mixed models we used; see below). With an effect size f = .25, $\alpha = .05$, and N = 111, the power estimates ranged from .99 - 1.00 for within-subjects effects and interactions and .91 for between-subjects effects, indicating adequate power to detect medium or large effects (Faul, Erdfelder, Lang, & Buchner, 2007).

Descriptive Statistics and Intercorrelations

Table 1 displays the means and standard deviations of maternal and paternal parenting stress when children were 10 and 14 years old. For both mothers and fathers at 10 and 14 years, means were highest for stress due to a difficult child, followed by parental distress, and finally dysfunctional interaction. When parental education and social desirability bias were controlled, mothers' scales were all significantly different from one another, F(2, 108) = 32.93, $p \le .001$, at 10-years, and F(2, 109) = 62.76, $p \le .001$, at 14-years. Fathers' scales in the three domains did not differ significantly, Fs(2, 107) = .28 to 1.21, *ns*. Intercorrelations among the 3 sources of stress are presented in Table 2 separately for mothers and fathers at 10 and 14 years. Correlations among subscales ranged from .43 - .74 for mothers at 10 years, .47 - .72 for mothers at 14 years, .48 - .63 for fathers at 10 years, and .53 - .79 for fathers at 14 years, all *ps* < .001. Despite being correlated, the three domains of stress shared at most 62% of their variance, and each domain has independent theoretical standing. Therefore, we explored the three domains separately. Part-whole correlations between the 3 sources of stress and the total scale (Table 2) ranged from .71 - .90 for mothers at 10 years; .77 - .90 for mothers at 14 years; .81 - .87 for fathers at 10 years; and .78 - .91 for fathers at 14 years, all *ps* < .001.

Stability across Child Age and Mother-Father Agreement in Relative Standing

Zero-order correlations addressed whether the parenting stress of mothers and fathers of girls and boys was stable across the child's transition to adolescence (Goal 1) and, whether mothers and fathers from the same family experienced similar relative standing on parenting stress (Goal 2). Parental education and social desirability bias were controlled by computing unstandardized residuals of the related parenting stress variables prior to computing correlations. (Parental age and neuroticism were unrelated to maternal and paternal parenting stress at 10 and 14 years.) It proved more precise to control for these covariates using residual scores than partial correlations because, for example, sometimes a covariate was associated with parenting stress at 10 but not 14 years, or with maternal but not paternal parenting stress.

Table 1, *r* column, displays stability coefficients (zero-order correlations of covariateresidualized scores) from 10 to 14 years for mothers and fathers. Parenting stress was largely stable from 10 to 14 years, and stability was similar for mothers and fathers of girls and boys. Tables 2A and 2B (diagonal) display agreement in parenting stress between mothers and fathers at 10 and at 14 years, respectively. Mothers' and fathers' parenting stress on corresponding scales were significantly correlated. With one exception, agreement was similar for mothers and fathers of girls and boys. Mothers and fathers of girls agreed on their parental distress, *r* (47)=.45, $p \le .001$, but mothers and fathers of boys did not, r(47)=-.00, *ns*, z = 2.46, $p \le .05$. Effect sizes were generally medium (Cohen, 1988).

Continuity across Child Age, Child Gender, and Mother-Father Mean-Level Agreement

The following analyses addressed whether the parenting stress of mothers and fathers was continuous in mean level across the child's transition to adolescence (Goal 3), and whether mothers and fathers from the same family experienced similar mean levels of parenting stress (Goal 4). We also explored any differences in the parenting stresses of parents of girls and boys.

To assess continuity across child age, agreement in mean level between mothers and fathers, and stress associated with parenting girls and boys from 10 to 14 years, we computed four generalized linear mixed models (for the total score, parental distress, difficult child, and dysfunctional interaction separately). Child age (10 vs. 14 years) and parent gender (mother vs. father) were modeled as within-subjects repeated fixed effects, child gender (female vs. male) was modeled as a between-subjects fixed effect, and all possible interactions were also assessed. The covariance structure was modeled as heterogeneous compound symmetry, accounting for correlations between mothers' and fathers' corresponding stress scales at 10 and 14 years, but allowing their variances to vary. In linear mixed modeling, fixed effects do not follow exact *F* distributions and therefore the denominator degrees of freedom are estimated using the Satterthwaite (1946) approximation and will not be integers. Across child age and parents, parental education was related to parental distress, *r*(442) = -.11, *p* ≤ .05, and to dysfunctional parent-child interaction, *r*(442) = -.12, *p* ≤ .05; social desirability bias was related to total parenting stress and all 3 subdomains, *r*s(442) = -.13 to -.26, *p*s ≤ .01. Therefore, parental education and social desirability bias were modeled as fixed effect control variables.

Total parenting stress—Controlling for social desirability bias, no significant 2- or 3-way interactions emerged, Fs(1, 315.74-323.83) = .00 - .99, *ns*. A main effect of child age emerged, F(1, 315.95) = 7.08, $p \le .01$, but no main effects of parent gender, F(1, 324.84) = .46, *ns*, or child gender, F(1, 108.89) = .48, *ns*. Across mothers and fathers of girls and boys, total parenting stress was higher (discontinuous) when children were 14 years than when they were 10 years. Note that these findings are not independent of those for the subscales because the total parenting stress scale subsumes the subscales.

Parental distress—Controlling for parental education and social desirability bias, no significant 2- or 3-way interactions emerged, Fs(1, 321.97-329.82) = .04 - 1.10, *ns*. A main effect of parent gender emerged, F(1, 329.72) = 4.08, $p \le .05$, but no main effects of child age, F(1, 322.12) = .07, *ns*, or child gender, F(1, 109.19) = .31, *ns*. Across child age, fathers reported slightly higher parental distress than mothers, and parental distress was continuous in mean level.

Difficult child—Controlling for social desirability bias, no significant main effects or interactions emerged, indicating that parenting stress due to a difficult child was continuous across child age, F(1, 321.05) = 2.03, *ns*, did not differ between parents of girls and boys, F(1, 109.01) = .63, *ns*, did not differ between mothers and fathers, F(1, 315.43) = .01, *ns*, and

the pattern was similar for mothers and fathers of girls and boys at 10 and 14 years, Fs(1, 313.94-320.85) = .03-1.39, *ns*.

Dysfunctional interaction—Controlling for parental education and social desirability bias, no significant 2- or 3-way interactions emerged, Fs(1, 313.56-325.10) = .04 - .44, *ns*. A main effect of child age emerged, F(1, 313.73) = 23.64, $p \le .001$, with no main effects of child gender, F(1, 107.20) = .25, *ns*, or parent gender, F(1, 325.01) = .02, *ns*. Across mothers and fathers, stress due to parent-child dysfunctional interaction was higher (discontinuous) when children were 14 years than when they were 10 years.

Cross-Age Correlations of Mother and Father Parenting Stressors

Partial correlations addressed whether stress in different domains were related across time for mothers and fathers separately (Goal 5). Table 3 displays partial correlations between nonmatching parenting stress scales at 10 and 14 years for mothers (3A) and fathers (3B) separately. The 10-year scale that matched the 14-year scale was controlled to isolate the effect of 10-year stress on the change (or instability) in the 14-year scale. Controlling for 10-year parental distress, mothers' stress due to a difficult 10-year-old child and dysfunctional interaction at 10 years were associated with greater parental distress at 14 years. Controlling for 10-year parental distress, fathers' stress due to a difficult 10-year-old child was also associated with greater parental distress at 14 years. Controlling for 10-year stress due to a difficult child, fathers' stress due to dysfunctional interaction at 10 years was associated with greater stress due to a difficult child at 14 years. Finally, controlling for 10-year stress due to dysfunctional interaction, fathers' distress and stress due to a difficult child at 10 years were associated with greater stress due to dysfunctional interaction at 14 years. These findings indicate that there was some degree of spill-over among domains of parenting stress across time, even when stability in stress was controlled. Corresponding correlations in the top and bottom halves of Table 3 were not significantly different, indicating that there was no difference in the cross-age, cross-over effects of mothers and fathers.

Cross-Age and Cross-Parent Correlations among Parenting Stressors

The following partial correlations addressed whether mothers' stress and fathers' stress affected one another across their child's transition to adolescence (Goal 6). Table 4A displays partial correlations of 10-year mother parenting stress with 14-year father parenting stress, and Table 4B displays correlations of 10-year father parenting stress with 14-year mother parenting stress. The 10-year scale that matched the 14-year scale was controlled to isolate the effect of 10-year stress on the change (or instability) in the 14-year scale. Mothers' stress at 10 years had little effect on fathers' stress at 14 years after 10-year father stress was controlled: Only maternal distress at 10 years was associated with paternal distress at 14 years, after controlling for 10-year paternal distress. Fathers' stress at 10 years had a greater impact on mothers' stress at 14 years. Controlling for mothers' 10-year distress, fathers' distress, stress due to difficulty of the child, and stress due to dysfunctional interaction were all associated with greater maternal distress at 14 years. Controlling for mothers' 10-year stress due to difficulty of the child, fathers' stress due to difficulty of the child and stress due to dysfunctional interaction were also associated with greater maternal stress due to difficulty of the child. These findings suggest that mothers' and fathers' specific stress perceptions may impact one another across child age. However, corresponding correlations in Tables 4A and 4B were not significantly different, indicating that there was no difference in the cross-age effects of mothers on fathers and fathers on mothers.

DISCUSSION

Parenting a 14-year-old is more stressful than parenting a 10-year-old, but not in every domain of stress. We observed an increase (discontinuity) in total parenting stress, but this increase was attributable to increased stress due to parent-child dysfunctional interaction, not parental distress or stress due to a difficult child. Parenting stress was also highly stable across the child's transition to adolescence. Mothers and fathers showed moderate agreement in their relative standing and only a small mean difference on parental distress. Child gender was unrelated to parenting stress and did not interact with parent gender. Parents of girls and boys seem to agree in their relative standing and mean levels of parenting stress, and follow similar developmental trajectories (i.e., discontinuous stress due to dysfunctional interaction and continuous parental distress and stress due to a difficult child). Finally, at each age and across time, one parent's stress was sometimes related to a change in the other parent's stress.

Stability in Parenting Stress

Regardless of the changes in mean levels of total parenting stress, and stress due to dysfunctional interaction, individual differences in all parenting stress scales were highly stable from 10 to 14 years. Seigner et al. (2002) also found medium-sized stability in most mothers' and fathers' childrearing stress from the time their children were 12 to 17 years old. Stability of parenting stress for parents of younger children has also been reported (Chang & Fine, 2007; Östberg et al., 2007; Williford et al., 2007). In our sample, mothers and fathers who experienced more parenting stress when their children were 10 years were also relatively more stressed when their children were 14 years. Perhaps parents are predisposed to a particular level of stress regardless of changes in the family situation. Or perhaps negative feedback loops in the family system maintain relatively consistent individual differences of parenting stress (Montgomery & Fewer, 1988). Our findings of cross-over effects between parents suggest that stress in one domain may spill over into another, and mothers and fathers may be sustaining one another's parenting stress to some degree. For example, fathers with relatively high stress at 10 years tended to have partners with relatively high stress at 14 years, even after controlling for baseline levels of maternal stress.

Increased Stress Due to Dysfunctional Interaction

We expected all 3 domains of parenting stress to increase across time because all are intrafamilial, and changes in one domain could impact changes in another. For example, perceived dysfunctional interaction could affect the degree to which parents viewed their children as difficult and the degree to which parents experienced distress in the parental role. Instead, we observed a mean level increase in parenting stress due to dysfunctional interaction, but not due to parental distress or difficult child, from 10 to 14 years. This finding suggests that parents are able to distinguish between a disturbance in the relationship (dysfunctional interaction) and a disturbance in the individual (parental distress and difficult child), and don't attribute their stress to changes in the adolescent, but to parent-adolescent dynamics. As their children enter adolescence, parents report changes in parent-child relationship quality and closeness and conflict (Shearer, Crouter, & McHale, 2005), both of which may increase stress due to dysfunctional interaction. Most investigators agree that the intensity of parent-child conflict is greater in adolescence than in middle childhood (Laursen et al., 1998). Steinberg and Silk (2002) also suggested that the frequency of parent-adolescent conflict may not be different, but parent-adolescent arguments are less likely to be resolved in constructive ways than parentchild arguments (see also Laursen, 1993; Montemayor & Hanson, 1985).

Another reason for increased stress over troubled parent-adolescent interactions might be adolescents' drive for greater emotional and behavioral autonomy. When adolescents are asked about the topics of conflict with their parents, many of the primary reasons given relate to

behavioral autonomy, such as curfew, dating, and socializing (Montemayor, 1983). Furthermore, Small et al. (1988) found that mothers' stress was positively related to the adolescent's desire for emotional autonomy, and fathers' stress was positively related to the adolescent's deviant activities and nonadherence to parental advice (indicators of behavioral autonomy). Adolescents' bids for increased emotional and behavioral autonomy may increase boundary negotiations and conflict with parents, and lessen parents' feelings of harmony in their relationships with their teens.

Continuity in Parental Distress and Stress Due to a Difficult Child

We did not find increases in all domains of parenting stress. Even though parenting stress due to a difficult child had the highest mean level for both mothers and fathers, it remained continuous in mean level across child age. Parents may not see the changes their young adolescents are making (e.g., seeking greater autonomy) as reflective of a difficult child. That is, parents appear to draw a distinction between their adolescents as people and the developmental issues that they are confronting and that cause interpersonal and family conflict.

Parental distress also remained continuous in mean level across child age. By the time their children enter adolescence, parents may be settled in their parental roles, and outside stressors may not perturb the parenting role. Another possibility is that our middle- to high-SES, intact families are somewhat buffered from mid-life identity issues, marital problems, and emotional distress associated with parenting an increasingly autonomous adolescent. The challenges of parenting a 10- versus a 14-year-old may not be enough to distress relatively equipped parents without some co-occurring marital or financial instability. Parents in separating or divorced families, or low SES families, for example, may show different parenting distress patterns.

It is notable that in our sample of largely intact families there was some spillover between parents on parental distress. For example, when one parent experienced a relatively high level of distress at 10 years, the other parent tended to also report a relatively high level of distress at 14 years controlling for baseline levels of distress. Furthermore, for both parents, stress due to the difficulty of the child at 10 years (the scale that was endorsed the most) was associated with higher distress at 14 years, controlling for 10-year distress. Difficult child behavior and spousal distress at 10 years may contribute to relatively high parental distress at 14 years.

Parental Agreement

Overall, mothers and fathers of 10- and 14-year-old children independently report that they experience similar mean levels of parenting stress. There was a small difference in parental distress, but fathers' distress was only slightly higher than mothers' (less than one tenth of a standard deviation at 10 and 14 years). These small differences in means are perhaps not practically meaningful. Mothers' and fathers' agreed on their relative standing at 10 and 14 years as well, although there was certainly a great deal of variance that was unshared between mothers and fathers. Mothers and fathers are part of the same dynamic family system (Bornstein & Sawyer, 2005), and the actions and feelings of one parent are likely to affect those of the other. Mothers and fathers in intact families may also share similar levels of parenting stress because they have similar experiences with their children. Even in families where parent-adolescent conflict is more predominant with one parent, the other parent is likely to be affected by the extant conflict in the family system.

Cross-Age Relations among Sources of Parenting Stress

In accordance with the agreement between parents on corresponding stress scales, we also found some degree of cross-over between parents on non-matching scales. For both mothers and fathers, 10-year parenting stress in one domain was sometimes associated with stress in another domain 4 years later, even after the stability in the antecedent stress domain was

controlled. Stress levels in one parent also sometimes affected parenting stress levels in the other parent 4 years later. These cross-age, cross-parent, and cross-domain correlations provide mounting evidence that mothers and fathers in intact families are co-parenting, and thereby sharing the stresses associated with that role (McHale et al., 2002).

There was a trend for father parenting stress at 10 years to have an impact on the change in mothers' stress from 10 to 14 years (5 of 9 correlations significant), but not the other way around (mothers' stress at 10 did not tend to affect the change in fathers' stress; 1 of 9 correlations significant). We found that stress due to parent-child dysfunctional interaction increased for both mothers and fathers across the transition to adolescence. However, Cole and McPherson (1993) and Shek (1998) reported that father-adolescent conflict was a stronger predictor of adolescent maladjustment than mother-adolescent conflict. One possibility for the spillover from father to mother is that increased father-child dysfunctional interaction disturbs the family system more than mother-child dysfunctional interaction. Another possibility is that fathers who are experiencing more parenting stress may withdraw from the family (Halme, Tarkka, Nummi, & Åstedt-Kurki, 2006), thus increasing the pressure on the mother to cope with the sources of parenting stress. Future research should explore how parenting stress relates to parent-adolescent conflict, strategies mothers and fathers use to manage their parenting stress spills over from one parent to the other.

Child Gender

Parenting an adolescent girl or boy seems to have little differential effect on mothers' and fathers' stress. We found no main effects or interactions with child gender, indicating that mothers and fathers of young adolescent girls and boys experience similar mean levels of parenting stress. Stability, continuity, and agreement between parents were also similar for parents of girls and boys. Still, it is possible that there are different causes or consequences of parenting stress among parents of girls and boys, and potential antecedents and outcomes should be explored by gender.

Strengths and Limitations

Our study contributes to the literature on the stability, continuity, and agreement in parenting stress in a variety of ways, but is also limited in some respects. The sample was relatively small, self-selected, and generalizable only to educated, intact, European American families with young adolescents. Agreement between mothers' and fathers' parenting stress may be different in other family configurations, such as divorced families, families who are also dealing with other types of strain (e.g., economic), or families of other ethnicities. Our study also exclusively focused on within-family sources of parenting stress. Other external sources of stress, such as peers, school, adolescent employment, and dating relationships should be investigated for their associations and effects on parenting stress.

However, this study incorporated several features that advance the literature. We studied both mothers and fathers from the same families, finding that their parenting stress patterns were similar. Our design was also longitudinal, rather than the more commonly used cross-sectional approach, permitting us to study stability and continuity of the same parents across their child's transition to adolescence, as well as patterns of spillover between the sources of mothers' and fathers' stress in the family.

Conclusions and Future Directions

This study finds that mother and father parenting stress is stable in relative standing and that both parents find parenting 14-year-olds more stressful than parenting 10-year-olds. The source of that increased stress appears to stem from dysfunctional parent-child interaction. Mothers

and fathers in intact families agree in their relative standing, mostly experience similar mean levels of different kinds of parenting stress, and notably affect one another's stress to some degree. Future studies should explore further the qualities of parent-adolescent relationships that lead to increased parenting stress due to dysfunctional parent-child interactions. Specifically, studying parent-adolescent conflict and closeness, and adolescent desires for emotional and behavioral autonomy, should help elucidate the new challenges faced by adolescents and parents as adolescence looms.

Acknowledgments

This research was supported by the Intramural Research Program of the NIH, NICHD. Keith Crnic served as Action Editor on this ms.

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TABLE 1

Descriptive Statistics and Stability Coefficients for Maternal and Paternal Parenting Stress from 10 To 14 Years

	10 Years		14 Years		
	W	SD	W	SD	r(109) ^a
Mother					
Total parenting stress	74.09	17.40	76.33	18.64	.64***
Parental distress	25.75	5.98	25.62	6.34	.59***
Difficult child	27.89	8.39	28.22	8.49	.59***
Dysfunctional interaction	20.44	6.27	22.50	7.01	.62***
Father					
Total parenting stress	72.73	16.14	77.00	20.12	.74***
Parental distress	25.88	6.42	26.18	6.97	.68***
Difficult child	26.86	6.69	28.23	8.15	.59***
Dysfunctional interaction	19.98	5.89	22.59	7.66	.70***
<i>Note.</i> The total parenting stress scale has a p	ossible range of 0 to 144, and the subscales have a possible	range of 0 to 48.			
a Scales were residualized for parental educa	ttion and social desirability (as needed) prior to computing s	stability coefficients.			

Parent Sci Pract. Author manuscript; available in PMC 2011 January 1.

 $_{p < .001.}^{***}$

TABLE 2

Correlations among Stress Scales at 10 and 14 Years for Mothers and Fathers, and Agreement between Mothers and Fathers at 10 and 14 Years

Mother	Total Parenting Stress	Parental Distress	Difficult Child	Dysfunctional Interaction	
Father					
А.	10 year				
Total parenting stress	.40***	.71***	.90***	.87***	
Parental distress	.81***	.22*	.43***	.45***	
Difficult child	.84***	.48***	.46***	.74***	
Dysfunctional interaction	.87***	.58***	.63***	.39***	
В.	14 year				
Total parenting stress	.46***	.77***	.88***	.90***	
Parental distress	.78***	.38***	.47***	.58***	
Difficult child	.90***	.53***	.48***	.72***	
Dysfunctional interaction	.91***	.57***	.79***	.39***	

Note. Correlations in sections A and B above the diagonal are for mothers, below the diagonal are for fathers, and on the diagonal (shaded cells) are between mothers and fathers. Correlations between total parenting stress and the subscales are part-whole correlations.

p < .05.

 $^{**}p < .01.$

*** *p* < .001.

TABLE 3

Within-Parent Associations Between 10- and 14-Year Parenting Stress, Controlling for Stability in the 14 Year Stress Scale

	14 Years			
10 years	Parental Distress	Difficult Child	Dysfunctional Interaction	
Α.	Mother			
Parental distress		00	02	
Difficult child	.19*		.03	
Dysfunctional interaction	.22*	.03		
В.	Father			
Parental distress		.18	.19*	
Difficult child	.20*		.24**	
Dysfunctional interaction	.09	.23*		

Note. df = 108. Scales were residualized for parental education and social desirability (as needed) prior to computing correlations.

 $^{*}p \le .05.$

 $p^{**} \le .01.$

TABLE 4

Associations between Mothers' and Fathers' Parenting Stress from 10 To 14 Years, Controlling for Stability in the 14-Year Scale

	Parental Distress	Difficult Child	Dysfunctional Interaction
А.		Fathers at 14 Years	
Mothers at 10 years			
Parental distress	.19*	07	.01
Difficult child	.09	.02	.05
Dysfunctional interaction	.07	.04	.00
В.		Mothers at 14 Years	
Fathers at 10 years			
Parental distress	.23*	.08	01
Difficult child	.25**	.27**	.17
Dysfunctional interaction	.26**	.20*	.14

Note. df = 108. Scales were residualized for parental education and social desirability (as needed) prior to computing correlations.

 $\bar{p} \leq .05.$

 $p \le .01.$