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MOTHER-CHILD CONFLICT DURING THE TRANSITION TO ADOLESCENCE: VARIATION BY MATERNAL EDUCATION

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Mother-Child Conflict During the Transition to Adolescence: Variation by Maternal Education

ABSTRACT

This paper investigated variation in change in mother-child conflict during the transition to adolescence by maternal education using panel data from the NICHD Study of Early Child Care and Youth Development when children were third, sixth, and ninth graders (N = 900). Analyses using fixed effects models showed that whereas mothers without a college degree reported increases in mother-child conflict across the three time points, mothers with a college degree reported few changes. These differences by maternal education remained after controlling for children's externalizing problems, mothers' peer concerns, and family characteristics, but were no longer significant when variation by authoritarian parenting values was controlled for. Thus, parenting values were salient to differences in change in mother-child conflict by maternal education.

Social scientists have long been interested in changes in parent-child relationships during children's transition to adolescence (Collins et al., 2000; Laursen, Coy, & Collins, 1998; Smetana, Campione-Barr, & Metzger, 2006; Steinberg, 2001). Although empirical research has generally shown that parent-child conflict is higher during adolescence—i.e., approximately 12 to 17 years of age—than during earlier years (Laursen, Coy, & Collins, 1998; Montemayor, 1983; Nomaguchi, 2012; Steinberg, 1981), the small magnitude of the difference by children's developmental stage has made researchers question the conventional emphasis on the universal increase in parent-child conflict during the child's transition to adolescence (Laursen, Coy, & Collins, 1998). Researchers have increasingly considered the possibility that the degree of the increase in parent-child conflict during adolescence may depend on various child and family contexts (Collins et al., 2000; Smetana, Campione-Barr, & Metzger, 2006). For such contexts, empirical studies have investigated children's timing of puberty (Collins & Russell, 1991; Galambos & Almeida, 1992; Laursen, Coy, & Collins, 1998), birth order (Shanahan et al., 2007), parents' work orientation (Silverberg & Steinberg, 1987), race/ethnicity (Dixon, Graber, & Brooks-Gunn, 2008), marital status (Smetana, Yau, Restrepo, & Braeges, 1991), and relationship quality with intimate partners or close kin (Trentacosta et al. 2011). Meanwhile, the limitation of the use of cross-sectional data has been increasingly recognized (Loeber et al., 2000; Shanahan et al., 2007; Trentacosta et al., 2011). Together, researchers have called for the need for more research investigating variation in change in parent-child conflict during the transition to adolescence across various family contexts using longitudinal data that examine change in parent-child conflict within the same parent-child dyads (Loeber et al., 2000; Shanahan et al., 2007; Trentacosta et al., 2011).

This paper examined socioeconomic status (SES), measured as maternal education, as a context that might influence variation in change in mother-child conflict during the transition to adolescence, using panel data from the NICHD Study of Early Child Care and Youth Development when the study children were in third, sixth, and ninth grades (SECCYD; N = 900). Past research has suggested that differences in parents' beliefs in children's decision-making autonomy might be a key to understanding variation in the degree of parent-adolescent conflict (Smetana, 1995; Steinberg, 2001). Ample sociological research has demonstrated that parenting beliefs and practices, especially parents' beliefs in legitimacy of parental authority and children's decision-making autonomy, vary by SES (Kohn 1969; Lareau, 2003; Nelson, 2010). Such variation in parenting values by SES may indicate that the degree of the increase in mother-child conflict during the transition to adolescence may vary by SES. This paper focused on mother-child conflict largely because data on fathers were limited in the SECCYD, but also because prior research has shown that increases in parent-child conflict are greater in mother-child than father-child relationships (Laursen, Coy, & Collins, 1998). Following prior research (Altintas, 2016; Kalil, Ryan, & Corey, 2012; Nelson, 2010), we measured SES by maternal education.

The parent-child relationship plays a central role in the well-being of parents and children. High parent-child conflict is a major stressor for parents (Nomaguchi, 2012; Silverberg & Steinberg, 1987) and is negatively related to children's academic, behavioral, and emotional health (Amato & Sobolewski, 2001; Meier & Musick, 2014; Trentacosta et al., 2011). Thus it is important to identify factors that are related to higher levels of parent-child conflict and how such levels vary across family contexts. The present analysis contributes to the literature by

showing SES disparities in the increase in mother-child conflict during the transition to adolescence.

Mother-Child Conflict during the Transition to Adolescence: Variation by Maternal Education

Several perspectives have contended that mother-child conflict increases during the child's transition to adolescence (Laursen, Coy, & Collins, 1998; Steinberg, 2001). Psychoanalytic perspectives emphasize adolescents' innate developmental needs for greater emotional and physical independence from parents (Blos, 1967; Putnick et al., 2010). Other researchers have focused on the role of physical and physiological changes during the onset and the progression of puberty (Buchanan, Eccles, & Becker, 1992; Stenberg, 1981). Ecological perspectives as well as sociological perspectives have focused on the role of changes in children's social interactions and interpersonal relationships during the transition to adolescence as a primary source of changes in mother-child relationships: children increasingly spend more time with peers and adults—i.e., teachers, coaches—outside of their parents' reach during this developmental stage (Larson & Richards, 1994; Mortimer & Call, 2001; Nomaguchi, 2008; Smetana, Campione-Barr, & Metzger, 2006). As children's social world expands, children may seek to negotiate rules with parents regarding curfews, socializing, and how to spend their free time, which may result in more frequent mother-child disagreements (Hill et al., 1985*a*, 1985*b*; Montemayor, 1983).

As researchers have increasingly recognized that the increase in parent-child conflict during the child's transition to adolescence may vary by child or family context, what factors may propel such variation has been debated (Smetana, Campinone-Barr, & Metzger, 2006; Steinburg, 2001). Steinburg (2001) suggested that one primary reason for increases in parent-child conflict might be the gap between parents and children in expectations regarding how far

children are allowed to negotiate the rules and the standards set by parents. This idea suggests that whether children's desire to have greater decision-making autonomy during the transition to adolescence would provoke parent-child conflict may depend on parents' beliefs in the balance between the legitimacy of parental authority and the importance of children's decision-making autonomy. Prior research has documented that some parents emphasize the importance of children's obedience to parental authority, while other parents emphasize the importance of cultivating children's decision-making autonomy. In Baumrind's typology (1971), authoritarian parents tend to emphasize parental authority, expect their children to obey, and thus may see their children's attempt to negotiate as opposition to their parental authority, which may result in greater arguments and sense of difficulties in the parent-child relationship; whereas authoritative parents are more likely to allow their children to make decisions in certain issues and are more likely to be open to negotiation with their children, which may decrease both parents' and children's frustration and feelings of difficulty in the relationship with each other (Smetana, 1995; Steinberg, 2001). Other empirical studies have shown similar patterns that authoritarian parents were more likely than authoritative parents to report difficult relationships with their children or feeling frustrated with their children at various children's developmental stages (Deater-Deckard, 2004; Nomaguchi & Brown, 2011; Nomaguchi & House, 2013). These studies suggest the important role that parenting beliefs might play in influencing variation in the degree of increases in mother-child conflict during the transition to adolescence.

Parenting values and practices vary across social and cultural contexts (Hays, 1996; Smetana, Campione-Barr, & Metzger, 2006). Whereas psychological research has largely focused on variation in parenting beliefs by cultural context, primarily by race/ethnicity (Dixon, Gaber, & Brooks-Gunn, 2008; Smetana, Campione-Barr, & Metzger, 2006), sociological

research has long been interested in variation in parenting values by SES (Kohn, 1977; Lareau, 2003; Nelson, 2010; Weininger & Lareau, 2009), of which maternal education level has been increasingly recognized as a strong indicator (Bianchi, 2011; Putnam, 2016). A series of studies by Kohn (Kohn, 1969; Kohn & Schooler, 1983) have shown that parents' SES positions in the larger society influence their views of the nature of the parent-child relationship and the traits that children need to gain to be successful in the world of work. Parents with higher levels of education are more likely to have jobs that require them autonomy, defined as independent decision-making, and negotiation skills with co-workers and managers. In contrast, parents with lower levels of education tend to have jobs that are routine, less creative, and expect them to follow supervisors' orders. Such differences in conditions of work with which one is typically engaged shape different ideas about what kinds of traits that children need to obtain to prepare themselves for the real world: parents with higher SES tend to value children's autonomy or ability to think for oneself, whereas parents with lower SES tend to value children's conformity to authority (Kohn, 1969; Weinger & Lareau, 2009).

More recent qualitative research has also demonstrated SES variation in parents' views of children's autonomy and parenting practices. Through her observations of families with third-grade children, Lareau (2003) found that parents with higher SES were more likely to treat their children as equals, encourage or coach them to participate in adult conversations, discipline them through praises and reasoning, and allow them to negotiate rules for their interests. In contrast, parents with lower SES tended to use directives and physical punishments, demand children's respect and obedience to parental authority, and emphasize the separation between the adult's and child's worlds. In short, higher SES parents attempted to foster their children's capacity to think independently through negotiation, whereas lower SES parents did not negotiate with

children to keep their authority uncontested (Weinger & Lareau, 2009). From her observational studies with families with adolescents, Nelson (2010) highlighted similar SES differences in parenting values and practices. Higher SES mothers tended to emphasize the importance of open communication, minimizing the generational gap, and being flexible with rules and expectations for their children. In contrast, lower SES mothers tended to emphasize that they as a parent should remain figures of authority and that it was important for them to establish concrete rules and impose consequences for violations of these rules. These differences in parenting values and practices by SES resulted in different natures of the parent-child relationship by SES. Nelson (2010) reported that higher SES mothers enjoyed open communication and close relationships with their adolescents. These findings of SES differences in parenting beliefs and practices in qualitative research echo prior quantitative findings that low-income parents who lived in or close to poor neighborhoods provided children with less warmth and less engaging parenting (Conger et al., 1994; Klebanov, Brooks-Gunn, & Duncan, 1994); and that parents with lower level of education were less likely to be directly involved in children's age-appropriate daily activities (Altintas, 2016; Kalil, Ryan, & Corey, 2012; Sayer, Bianchi, & Robinson, 2004).

In Baumrind's (1971) typology, parenting beliefs and practices that are more prevalent among higher SES may be called authoritative parenting values, whereas those that are more typically found among lower SES may be authoritarian parenting values. As discussed earlier in this section, past research has shown that authoritarian parenting values were more likely to be related to higher mother-child conflict than were authoritative parenting values (Deater-Deckard, 2004; Nomaguchi & House, 2013; Steinberg, 2001). Together, these past research findings suggested that the increase in mother-child conflict during the transition to adolescence would be greater among mothers without a college degree than among mothers with a college degree; and

that differences in authoritarian parenting values would be salient to such differences by maternal education in the increase in mother-child conflict during this developmental stage.

The Present Study

Using longitudinal data from the SECCYD, we examined change in mother-child conflict across three time points when children are third, sixth, and ninth graders with a specific focus on variation by maternal education. We expected that the increase in mother-child conflict across these three time points would be less pronounced for mothers with a college degree than for mothers without a college degree (Hypothesis 1). We also examined whether the increase in mother-child conflict would be greater for mothers with authoritarian parenting values and whether variation by maternal education would disappear when the variation by parenting values was controlled for (Hypothesis 2).

Prior research varied in the measures of parent-child conflict. Some studies used mothers' report (Putnick et al., 2010; Silverberg & Steinberg, 1987; Trentacosta et al., 2011); others used adolescents' reports (Shanahan et al., 2007) or both (Loeber et al., 2000). Some studies examined frequency of arguments (Hill et al., 1985*a*, 1985*b*; Shanahan et al., 2007; Silverberg & Steinberg, 1987), whereas other studies examined negative emotions or perceived difficult interactions between mothers and children (Burt et al., 2005; Putnick et al., 2010; Trentacosta et al., 2011), or both (Dixon, Graber, & Brooks-Gunn, 2008). The present analyses focused on mothers' report of negative emotions in the mother-child conflict, largely because this was the only measure in the SECCYD that used comparable questions across three time points.

The analyses were controlled for characteristics that prior research suggested were related to increases in mother-child conflict during the transition to adolescence. These characteristics included children's externalizing and internalizing problems, and mothers' concerns regarding

peer influences (Laursen, Coy, & Collins, 1998; Montemayor, 1983; Mortimer & Call, 2001). In addition, several background characteristics were controlled for, which include: children's characteristics, such as birth order, gender, and temperament, and mothers' characteristics such as authoritative or authoritarian parenting, work orientation, age at childbirth, race/ethnicity, marital status, family income, weekly work hours, and the number of children in the household (Crosnoe & Cavanagh, 2010; Dixon, Graber, & Brooks-Gunn, 2008; Laursen, Coy, & Collins, 1998; Loeber et al., 2000; Nomaguchi, 2012; Shanahan et al. 2007; Silverberg & Steinberg, 1990).

METHOD

Sample

The SECCYD is a longitudinal study of 1,364 children and their families that was originally designed to examine the association between non-maternal child care and children's developmental outcomes. The study began in 1991 when families of newborns were recruited from hospitals in 10 cities in 9 states in the United States (see NICHD Early Child Care Research [NICHD ECCRN], 2005 for detailed information about the data). The SECCYD has unique advantages for the purpose of the present analyses. First, it collected information about mother-child relationship quality using the same question wording across several waves when the study children were school-age through 15 years of age. Second, although it is not nationally representative, the sample includes families with diverse sociodemographic backgrounds in various regions in the United States.

The present analysis used data collected when children were in third (G3), sixth (G6), and ninth (G9) grades. We selected cases where the children and their mothers participated in all three surveys (N = 900). Those who remained in the analytical sample were more likely than

those who dropped out to be married, White, and more educated (data not shown). Thus, the findings presented here may underestimate the experiences of mother-child conflict among mothers with lower levels of education and unmarried mothers. We discuss limitations of the present sample in the discussion section. For variables with missing cases, we conducted multiple imputation using PROC MI in SAS (Allison, 2001).

Measures

Mother-child conflict was a time-varying variable (G3, G6, G9) measured as the average of the seven questions ($\alpha = .78$) from the Adult-Child Relationship Scale (ACRS) which was adapted from the Student-Teacher Relationship Scale (STRS; Pianta 2001). These questions included: (a) My child and I always seem to be struggling with each other; (b) My child easily becomes angry at me; (c) My child remains angry or is resistant after being disciplined; (d) Dealing with my child drains my energy; (e) When my child is in a bad mood, I know we're in for a long and difficult day; (f) My child's feelings toward me can be unpredictable or can change suddenly; and (g) My child is sneaky or manipulative with me. Response categories were: 1 = *definitely does not apply*, 2 = *not really*, 3 = *neutral*, 4 = *applies somewhat*, 5 = *definitely applies*. Similar measures were used in prior research (e.g., Trentacosta et al. 2011).

Child developmental stage was measured as third (reference), sixth, and ninth grades. *Maternal education* was the highest level of schooling mothers had in the baseline interview (at one month) and was measured as five dummy variables including less than high school, a high school diploma (reference), some college education, a 4-year college degree, and an advanced degree.

Mothers' authoritarian parenting values were measured as the sum of 22 items asked in the baseline interview ($\alpha = .90$) (e.g., "Children should always obey the teacher", "The most

important thing to teach children is absolute obedience to parents"; 1 = *strongly disagree* to 5 = *strongly agree*). The scale ranged from 22 to 110.

Child's *externalizing problem*s and *internalizing problems* were time-varying variables (G3, G6, G9) and measured using the Child Behavior Checklist (CBCL; Achenbach and Ruffle 2000). The externalizing problems scale was created by using the sum of 33 items (α = .89) that indicate displaying delinquent and aggressive behaviors in the last six months (0 = *not true*, 1 = *somewhat or sometimes true*, and 2 = *very true or often true*). I used standardized score (t-score) which ranged from 31 to 100. The internalizing problems scale was the sum of 31 items (α = .85) that indicate acting withdrawn, having somatic complaints, and appearing anxious or depressed. I also used t-score which ranged from 30 to 100. *Mothers' concerns about negative peer influences* were also time-varying (G3, G6, G9) and measured as the average of nine items (α = .84), including (a) This is a good group of kids; (b) I worry when my study child is w/these kids; (c) Some of these kids are bad influences on my study child; (d) These kids should be closely supervised by adults; (e) These kids are often in trouble; (f) These kids are excellent students; (g) These kids are good at sports; (h) These kids are hard workers; and (i) My study child has a fun time with these kids (1 = *definitely "no"* to 5 = *definitely "yes"*).

We included several background characteristics as control variables. Four factors were time-varying. *Maternal marital status* was a time-varying variable (G3, G6, G9) measured as three dummy variables including married (reference), cohabiting, and single. *Mother's weekly paid work hours* (G3, G6, G9) was measured based on a self-report of current employment hours. *The number of children in the household* (G3, G6, G9) was an ordered variable. *Family income* (G3, G6, G9) was a composed variable by NICHD ECCRN. Eight characteristics were time-invariant and mostly measured in the baseline interview. *Mother's age at birth* was

measured in years. Mother's race-ethnicity was three dummy variables including White (reference), Black, and Hispanic or other race. *Mothers' work orientation* was measured in the baseline interview as a constructed variable that gauged agreement with six items regardless of current employment status (e.g., ''I cannot picture having a fully satisfying life without a career/job''; ''I don't think I was really cut out to work all my life''; ''I would continue to work/want to return to work even if we don't need the income''; 1 = *strongly disagree* to 6 = *strongly agree*). The scale (α = .75) ranged from 6 to 36, with higher values indicating a stronger commitment to employment activity. *Child's birth order* was a dichotomous variable where first-born children were coded as 1 and others were coded as 0. *Child's gender* was a dichotomous variable where girls were coded as 0 and boys were coded as 1. *Child's temperament* was measured as the mean of 55 items (α = .81) asked in the 6-month interview (1 = *almost never* to 6 = *almost always*).

Analytical Plan

For multivariate analyses, we used pooled time series models for longitudinal data (Allison, 2009; Johnson, 1995). We estimated both random effects models and fixed effects models. The three waves (G3, G6, G9) of data were pooled, which resulted in N = 2,700 observations. We conducted random effects models first. Random effects models are conventional regression models, which allow both time-varying and time invariant variables to be in the models and examine differences across individuals in the sample. Three models were conducted. Model 1 examined differences in mother-child conflict by developmental stage controlling for mothers' authoritarian parenting values, mothers' concerns regarding negative influences of peer groups, children's externalizing and internalizing problems, as well as demographic and socioeconomic characteristics. Model 2 added the interaction between

developmental stage and maternal education to examine whether differences in the levels of mother-child conflict across the three time points differ by maternal education. Model 3 added the interaction between developmental stage and maternal authoritarian parenting values to examine whether differences in the levels of mother-child conflict across the three time points differ by maternal parenting values and whether the interaction effects between developmental stage and maternal education disappear. Next, we conducted fixed effects models, which examine within-individual *changes* across three time points. Fixed effects models are considered a more conservative test of the association because they eliminate unobserved time-invariant characteristics, such as mothers' and children's personalities, that might be related to developmental changes in mother-child conflict (Allison, 2009). We examined the same three models as we did for random effects models, although only time-varying variables were able to be included in fixed effects models except when time invariant variables were interacted with time-varying variables—in our case, developmental stage x maternal education in Model 2 and developmental stage x authoritarian parenting values in Model 3 were tested in fixed effects models as well as in random effect models.

RESULTS

Table 1 presents descriptive statistics for variables in the analyses. Note that some variables were measured as time-invariant and thus the means for these variables were shown only for the total sample. Means for time-varying variables were shown for the total sample and by years. Overall, the mean level of mother-child conflict increased from 2.29 in third grade to 2.39 in sixth grade and then to 2.50 in ninth grade. Differences in means between third and sixth grades and between sixth and ninth grades were statistically significant. Changes in the mean for children's problems and mothers' concerns about peer influence across the three time points may

be worth mentioning. The average score for externalizing problems decreased from third to sixth grades, but then increased from sixth to ninth grades. The average score for internalizing problems changed little from third to sixth grades, but declined from sixth to ninth grades. The average score for mothers' concerns regarding negative peer influences was higher in sixth grade than either in third or ninth grade. This is consistent with other research which showed that children's vulnerability to peer pressure peaks around age 14 and their resilience to such pressure increases from there (Steinberg & Monahan, 2007).

[Table 1 around here]

As shown in Figure 1, the pattern of change in mother-child conflict across the three waves varied by maternal education level. The increasing pattern of mother-child conflict from third through sixth to ninth grade was more pronounced among mothers with a high school diploma or some college education than other groups. There was little difference in mother-child conflict level by maternal education in third grade, except for mothers without a high school degree who reported a higher level of mother-child conflict than mothers in higher levels of education. From third to sixth grades, mothers with a high school diploma and mothers with some college education showed increases in mother-child conflict. In contrast, mothers with a college degree or an advanced degree showed little increase. When the children were in the sixth grade, mothers with a high school diploma or some college education had significantly higher levels of mother-child conflict than mothers with a college degree or more. Mothers without a high school diploma remained reporting the highest level of mother-child conflict among the five education groups. From sixth to ninth grades, mothers with some college education and mothers with a high school diploma increased mother-child conflict levels more rapidly than mothers without a high school degree, which resulted in no significant differences in mother-child

conflict across the three groups of mothers without a college degree. The average mother-child conflict level increased for mothers with a college degree or an advanced degree as well, but the average mother-child conflict level for them remained significantly lower than that for mothers without a college degree.

[Figure 1 around here]

Table 2 shows that mothers with or without college degrees were different in many characteristics. As found in prior research, the authoritarian parenting score was higher among mothers without a college degree than mothers with a 4-year college degree (64.94 vs. 49.76). Mothers with a college degree were lower in their children's externalizing problems and their concerns about negative influences than mothers without a college degree. There was little difference in mothers' report of their children's internalizing problems by education level. Mothers with a college degree differed from mothers without a college degree in demographic characteristics: they were more likely to be White, married, older, and have higher levels of family income.

[Table 2 around here]

Turning to multivariate analyses, Table 3 presents results of random effects and fixed effects models. Three models were conducted for random effects and fixed effects models respectively. In Model 1 of random effects models, controlling for mothers' parenting values, mothers' concerns about negative peer influences, children's externalizing and internalizing problems, and other background characteristics, mother-child conflict was higher when children were in sixth and ninth grades than in third grade. The differences between sixth and ninth grades were not significant. The same patterns were found in Model 1 of fixed effects models.

Model 2 included interaction terms between children's grade and maternal education to examine whether the association between children's developmental stages and mother-child conflict varies by maternal education. The interactions between sixth grade and a college degree or an advanced degree and between ninth grade and a college degree or an advanced degree were significant and the signs were negative. To interpret these findings, we conducted Model 1 for the five groups of mothers by education level separately (not shown). The findings suggest that differences in mother-child conflict between third and sixth grades and differences between sixth and ninth grades were significant for mothers without a college degree, but not for mothers with a college degree or an advanced degree. Similar patterns were found in Model 2 of fixed effects models.

Model 3 added interaction terms between children's grade and mothers' authoritarian parenting values to investigate whether the association between children's developmental stages and mother-child conflict varies by mothers' parenting values and whether the variation by education level would disappear when these variables were included in the model. The interactions between sixth or ninth grade and authoritarian parenting score were significant and the signs were positive, indicating that the increase in mother-child conflict from third to sixth and ninth grades was greater among mothers with higher authoritarian parenting than mothers with lower authoritarian parenting scores. Note that the interaction terms between children's grade and maternal education were no longer significant. To better understand these findings, we did supplemental analyses (not shown) where we examined Model 1 for those with the median score or higher authoritarian parenting score (58 or higher) and those with a lower authoritarian score separately. Among those with higher authoritarian scores, mother-child conflict was higher in both sixth and ninth grades than in third grade and there was no difference in the increases by

maternal education level. Among those with lower authoritarian scores, mother-child conflict was higher in ninth grade, but not in sixth grade; and the increases were greater among those without a college degree. Together, these findings suggested that the greater increase in mother-child conflict during the transition to adolescence for mothers without a college degree than mothers with a college degree was largely because of the former group's greater tendency to use the authoritarian parenting style than the latter group.

[Table 3 around here]

DISCUSSION

Much research has examined change in mother-child conflict during the transition to adolescence (Smetana, Campione-Barr, & Metzger, 2006; Steinberg, 2001). The present analysis, incorporating sociological research on SES variation in parenting values and practices (Kohn, 1977; Lareau, 2003) and using longitudinal data, provided additional evidence that the pattern of change in mother-child conflict during early adolescence varies by family contexts (Collins & Russell, 1991; Smetana, Campione-Barr, & Metzger, 2006). Our findings underscore SES differences, measured by maternal education, in the increase in mother-child conflict—focusing on mother-child negative emotions—during the transition to adolescence. Overall, mother-child conflict increases from third to sixth grades and from sixth to ninth grades. Importantly, however, such increase is more likely to occur among mothers without a college degree than among mothers with a college degree. Mother-child conflict among mothers with a college degree change little across the child's third, sixth, and ninth years.

The present analysis further shows that the difference in the increase in mother-child conflict during the transition to adolescence by maternal education is no longer significant when the interaction between parenting values and children's developmental stage are controlled for.

That is, mothers without a college degree are more likely to use the authoritarian parenting style, which is consistent to prior findings (Kohn, 1977; Lareau, 2003; Nelson, 2010), and authoritarian parenting beliefs and practices are related to an increase in mother-child conflict from third grade to sixth and ninth grades, which is also consistent to prior findings (Dixon, Graver, & Brooks-Gunn, 2008; Smetana, 1995). Prior research has noted that parents with the authoritarian style tend to disapprove of children having their say on rules over their daily routines such as homework, TV watching, curfews, and socializing, which can generate frequent disagreements between mothers and children as children transition to adolescent (Montemayor, 1993). In contrast, mothers who use the authoritative parenting style tend to allow children to negotiate with them from their children's early ages (Lareau, 2003), and thus they may adjust to their children's increasing desire for independence during the transition to adolescence more smoothly.

These findings of the present analysis echo prior sociological research which has shown social class differences in parenting beliefs, practices, and parent-child relationships. Parents with a college degree are more likely than their counterparts without a college degree to believe in the importance of children's decision-making autonomy over their obedience toward authority, spend more time interacting with their children directly, and enjoy emotionally-close parent-child relationships (Kohn, 1969; Lareau, 2003; Nelson, 2010). Because mother-child conflict is stressful and can be linked to poorer mental health for both mothers and children (Amato & Sobolewski, 2001; Meier & Musick, 2014; Nomaguchi, 2012; Silverberg & Steinberg, 1987), the SES disparity in the increase in mother-child conflict during the child's transition to adolescence may indicate an additional stressor that mothers with lower levels of education and

their children may have to deal with during the developmental stage when children face many other new challenges.

Implications of these findings for practitioners may not be straightforward, because the differences in parenting beliefs and practices by SES are embedded in unequal access to economic resources and occupational prestige (Kohn, 1977; Lareau, 2003), and thus they are not easily changed through attending parenting education programs. Research has shown that mothers with lower SES tend to be highly restrictive of the amount of autonomy they allow their teenagers to enjoy in order to protect their teenagers from immediate danger in their hostile environments (Elliott & Aseltine, 2013). Unlike their affluent counterparts whose fears tend to be abstract, mothers who live in or close to poor neighborhoods realize concrete dangers such as violence, drug abuse, and sexual abuse that their teenage children are vulnerable to. Affluent mothers may provide their children with cell phones, organized activities, and reliable transportations to monitor their children, which allows their children to have more autonomy; without access to economic resources, mothers with lower SES must limit their children's freedom of hanging out in their neighborhoods (Elliott & Aseltine, 2013). Such restrictive parenting may generate more parent-child conflict (Dixon, Graver, & Brooks-Gunn, 2008); yet, lower SES mothers may see it as a necessary strategy to keep their children away from danger (Elliott & Aseltine, 2013; Nelson, 2010).

In regard to stability in mother-child conflict during the transition to adolescence at a lower level among mothers with higher SES, this is consistent with other research findings on the norm of parenting in contemporary U.S. society especially among those with wealthier SES (e.g., Nelson, 2010). The importance of parents' spending shared time with children, having open communication with them, and avoiding authoritarian parenting has been increasingly

emphasized in a dominant ideology of parenting in the U.S. since the 1990s. Hays (1996) has argued that in the late 1980s to the 1990s, U.S. mothers began to heavily rely on childrearing advice by experts who emphasize the childrearing methods that are child-centered and the centrality of mothers' involvement in child-centered activities. Rutherford (2011) found that child-rearing advice in popular magazines in the 1980s began to stress parental, especially maternal, responsibility for constantly keeping tabs on children to shield them from possible dangers. Villalabos (2014) argued that with the increase in uncertainty in the U.S. economy and rapidly changing work and family contexts during the 1980s and 1990s, the mother-child emotional bond is increasingly seen as the most reliable tie that mothers should cherish. Indeed U.S. mothers increased time investments in childrearing between the 1980s and the 2000s (Bianchi, 2011; Sayer, Bianchi, & Robinson, 2004). Notably, such change occurred with a more rapid rate among mothers with higher SES than mothers with lower SES (Altintas, 2016). Although it has been debated whether mothers should be friends with their children (e.g., CBS News, 2010), emotionally close parent-child relationships have become ideal in contemporary U.S. society, especially among higher SES parents.

The present analyses have limitations that future research should address. First, although we used a well-established measure of negative emotions in the mother-child relationship, it would be better if the analyses also included different aspects of quality of mother-child relationships, such as frequency and type of arguments. Also, we relied on the measure that was based on the mother's report only. It would be better if we could examine both sides (the mother and the child) of views of their relationship quality. The SECCYD has the child's report of mother-child relationship quality measures in sixth and ninth grades, but not in third grade. Second, we were unable to examine whether the patterns of variation in mother-child conflict by

education persist in late adolescence. Third, although the sample of SECCYD was collected in various regions, it was not representative of children and parents in the United States. Research which uses a representative sample is warranted.

Children's transition to adolescence has long been believed as a stressful period for parents. At this developmental stage, as children seek more autonomy from their parents, parents and children must renegotiate their relationship with each other. The findings of the present analyses suggest that whether this renegotiation process produces more conflict in the parent-child relationship depends on parental education level. We found that mothers without a college degree report increases in mother-child conflict from the child's third through ninth grades, whereas mothers with a college degree experience little change in the level of mother-child conflict. Such variation by maternal education appears to be due to differences in mothers' approaches to parenting—the degree to which mothers use the authoritarian parenting style. These findings support the notion of social class differences in parenting experiences, suggesting more stressfulness in the parent-child relationships for working-class families than their affluent counterparts.

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Table 1. Means (SDs) for Variables in the Analyses (N = 900, 2,700 observations)

	Total sample	Third Grade	Sixth Grade	Ninth Grade
Mother-child conflict	2.39 (0.90)	2.29 (0.87)	2.39 (0.90)*	2.50 (0.93)***[c]
Maternal education				
Less than high school	0.07			
High school	0.20			
Some college	0.32			
College degree	0.24			
Advanced degree	0.17			
Authoritarian parenting	58.78 (14.95)			
Child's externalizing problems	47.35 (10.06)	47.03 (9.85)	45.77 (10.15)**	49.26 (9.89)***[c]
Child's internalizing problems	51.04 (7.79)	53.08 (5.32)	52.84 (5.25)	47.19 (10.21)***[c]
Maternal concerns about peer influences	1.73 (0.53)	1.78 (0.53)	1.65 (0.48)***	1.77 (0.57)[c]
Other controls				
Maternal marital status				
Married	0.77	0.78	0.77	0.75
Cohabiting	0.05	0.05	0.06	0.06
Single	0.18	0.17	0.17	0.20
Maternal work hours	28.05 (19.09)	26.37 (18.96)	27.78 (19.10)	30.00 (19.05)***[a]
Number of children	2.40 (0.99)	2.41 (0.94)	2.45 (1.00)	2.33 (1.02)[a]
Family income	90.44 (88.65)	77.74 (68.83)	89.47 (82.29)**	104.09 (108.33)***[b]
Maternal work orientation	21.06 (5.88)			
Maternal age at birth	28.78 (5.52)			
Maternal race-ethnicity				
White	0.83			
Black	0.11			
Hispanic	0.04			
Other race	0.02			
First child	0.45			
Girls	0.50			
Child temperament at 6 months	3.16 (0.41)			

Differences from third grade were significant at *$p < .05$; **$p < .01$; and ***$p < .001$ levels. Differences from sixth grade were significant at [a]$p < .05$; [b]$p < .01$; and [c]$p < .001$ levels.

Table 2. Descriptive Statistics for Variables by Developmental Stage and Maternal Education Level (N = 900, 2,700 observations).

	Mothers without a College Degree (n = 531)				Mothers with a College Degree (n = 369)			
	Total	Third Grade	Sixth Grade	Ninth Grade	Total	Third Grade	Sixth Grade	Ninth Grade
Mother-child conflict	2.47	2.33	2.48	2.60	2.28***	2.24	2.24	2.35
	(0.91)	(0.86)	(0.91)	(0.93)	(0.87)	(0.86)	(0.86)	(0.90)
Authoritarian parenting values	64.94				49.76***			
	(13.75)				(11.72)			
Child's externalizing problems	48.69	48.45	47.40	50.20	45.37***	44.97	43.38	47.76
	(10.24)	(10.06)	(10.61)	(9.85)	(9.36)	(9.08)	(8.91)	(9.61)
Child's internalizing problems	51.25	53.24	52.88	47.63	50.69	52.83	52.78	46.45
	(7.80)	(5.60)	(5.29)	(10.19)	(7.73)	(4.89)	(5.20)	(10.07)
Maternal concerns re. friends	1.81	1.88	1.71	1.85	1.61***	1.65	1.55	1.63
	(0.55)	(0.55)	(0.52)	(0.57)	(0.48)	(0.46)	(0.45)	(0.53)
Other controls								
Maternal marital status								
Married	0.69	0.70	0.69	0.67	0.88***	0.90	0.89	0.86
Cohabiting	0.08	0.07	0.09	0.09	0.01***	0.01	0.01	0.01
Single	0.23	0.24	0.21	0.24	0.10***	0.08	0.10	0.13
Maternal work hours	28.70	27.30	28.54	30.26	27.06	25.01	26.68	29.50
	(19.17)	(19.05)	(19.29)	(19.07)	(18.92)	(18.78)	(18.79)	(18.95)
Number of children	2.44	2.44	2.49	2.39	2.34	2.37	2.39	2.25
	(1.06)	(1.00)	(1.08)	(1.11)	(0.85)	(0.84)	(0.87)	(0.85)
Family income	59.87	52.31	60.23	67.07	135.77***	115.07	133.46	158.78
	(44.33)	(38.93)	(40.14)	(51.71)	(114.24)	(85.21)	(105.22)	(141.26)
Maternal work orientation	20.37				22.04***			
	(5.87)				(5.74)			
Maternal age at birth	26.84				31.63***			
	(5.57)				(3.99)			
Maternal race-ethnicity								
White	0.76				0.92***			
Black	0.16				0.02***			
Hispanic	0.06				0.02***			
Other race	0.02				0.04***			
First child	0.44				0.47***			
Girls	0.49				0.52***			
Child temperament at 6 mo.	3.21				3.10***			
	(0.41)				(0.40)			

Differences by maternal education level were significant at *$p < .05$; **$p < .01$; and ***$p < .001$ levels.

Table 3. Variations in Developmental Differences in Mother-Child Conflict by Maternal Education (N = 900; 2700 observations)

	Random Effects Models									Fixed Effects Models								
	Model 1			Model 2			Model 3			Model 1			Model 2			Model 3		
	b	*SE*		*b*	*SE*		*b*	*SE*		*b*	*SE*		*b*	*SE*		*b*	*SE*	
Developmental stage[a]																		
Sixth grade (G6)	.162	.026	***	.237	.058	***	-.106	.147		.132	.026	***	.214	.057	***	-.124	.145	
Ninth grade (G9)	.141	.030	***	.195	.058	***	-.163	.147		.156	.032	***	.208	.058	***	-.087	.145	
Maternal education[a]																		
< high school	.150	.091		.203	.112		.233	.113	*									
Some College	.100	.060		.077	.074		.059	.074										
College degree	-.005	.071		.110	.085		.059	.086										
Advanced degree	.036	.083		.150	.096		.081	.099										
Authoritarian parenting	.001	.002		.001	.002		-.002	.002										
Externalizing problems	.031	.002	***	.031	.002	***	.031	.002	***	.020	.002	***	.020	.002	***	.020	.002	***
Internalizing problems	-.001	.002		-.001	.002		-.001	.002		.001	.002		.000	.002		.001	.002	
Mothers' friends concerns	.213	.028	***	.215	.028	***	.216	.029	***	.136	.038	**	.168	.035	***	.170	.036	***
Developmental stage x mother's education[a]																		
G6 x < high school				-.116	.113		-.160	.114					-.110	.111		-.153	.112	
G9 x < high school				-.039	.111		-.084	.112					-.061	.110		-.098	.111	
G6 x some college				.006	.074		.031	.074					.002	.073		.027	.073	
G9 x some college				.062	.073		.089	.073					.071	.072		.092	.072	
G6 x college degree				-.172	.078	*	-.096	.083					-.177	.077	*	-.103	.082	
G9 x college degree				-.187	.078	*	-.108	.084					-.199	.077	*	-.134	.083	
G6 x advanced				-.172	.084	*	-.071	.093					-.184	.083	*	-.085	.092	
G9 x advanced				-.191	.084	*	-.086	.093					-.181	.084	*	-.095	.093	
Developmental stage x parenting values[a]																		
G6 x authoritarian							.005	.002	*							.005	.002	*
G9 x authoritarian							.005	.002	**							.004	.002	*

(cont.)

Table 3. cont.

	Random Effects Models									Fixed Effects Models								
	Model 1			Model 2			Model 3			Model 1			Model 2			Model 3		
	b	*SE*		*b*	*SE*		*b*	*SE*		*b*	*SE*		*b*	*SE*		*b*	*SE*	
Other Controls																		
Marital status[a]																		
Cohabiting	.066	.074		.063	.074		.061	.074		.159	.095		.116	.098		.116	.098	
Single	.060	.046		.065	.046		.067	.046		.036	.073		.038	.063		.043	.063	
Work hours	-.001	.001		-.001	.001		-.001	.001		-.001	.001		-.001	.001		-.001	.001	
Number of children	.003	.019		.001	.019		.001	.019		-.023	.028		-.028	.027		-.028	.027	
Family income	.000	.000		.000	.000		.000	.000		.000	.000		.001	.000	*	.001	.000	*
Work oriented	-.003	.004		-.003	.004		-.003	.004										
Age at birth	.003	.005		.003	.005		.003	.005										
Race/ethnicity[a]																		
Black	-.364	.076	***	-.363	.076	***	-.363	.076	***									
Hispanic	.112	.104		.113	.104		.113	.104										
Other race	-.146	.135		-.145	.135		-.145	.135										
First child[a]	.127	.044	**	.111	.041	**	.110	.041	**									
Girls[a]	.110	.041	**	.126	.044	**	.125	.044	**									
Child's temperament at 6 mo.	.196	.052	***	.195	.052	***	.195	.052	***									

* $p < .05$; ** $p < .01$; *** $p < .001$.

Omitted reference categories are: Third grade, high school, married, third grade x high school, third grade x traditional parenting values, White, higher order child, and boys.

Figure 1. Mother-Child Conflict: Third, Sixth, and Ninth Grades by Maternal Education