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Exploring Parent-Adolescent Conflict: An Examination of Correlates and Longitudinal Predictors in Early Adolescence

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Exploring Parent-Adolescent Conflict: An Examination of Correlates and Longitudinal
Predictors in Early Adolescence

A Thesis

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
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Master of Science
in
Psychology

by

Jessica Anne Melching

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Abstract

Previous research has focused on developmental trends in parent-adolescent conflict without extensively describing individual differences in conflict. The current study tested child factors, parent factors, contextual factors, and adolescence-specific factors as concurrent correlates and longitudinal predictors of parent-adolescent conflict.

Participants include 218 mother-child dyads, adolescents' mean age (11years, 11months). Parent and adolescent data was collected during the summers following the adolescents' 5th and 6th grade years. All four groups of variables were associated with parent-adolescent conflict. The child group of factors emerged as the most consistent group of variables concurrently and longitudinally.

early adolescence, parent-adolescent conflict, individual differences, predictors

Introduction

Researchers have established that some parent-child conflict is a normal part of development. However, frequent parent-adolescent conflict also has been linked to a variety of problems within the family such as depression and hostility suggesting that individual differences in parent-child conflict may be indicated by factors other than just normal development (Allan, Kashani, & Reid, 1998; Kane & Garber, 2004). More research is needed to identify factors that predict parent-adolescent conflict. The purpose of the current study is to conduct a multivariate analysis that will test concurrent correlates and longitudinal predictors of individual differences in parent-adolescent conflict in early adolescence.

The following literature review covers research on the normative development of parent-adolescent conflict and the association between parent-adolescent conflict and parent, child, contextual, and adolescence-specific factors. The first section will examine studies that reflect the normative developmental patterns of the frequency and intensity of parent-child conflict. The next sections will review child, parent, contextual, and adolescence-specific factors associated with individual differences in parent-child conflict.

Parent-Adolescent Conflict

Conflict is a term broadly conceptualized and defined as a disagreement between individuals or groups of individuals (e.g., Hall, 1987). Parent-child conflict during adolescence is characterized as a dyadic, interpersonal event involving overt behavioral opposition including quarrels, disagreements, and arguments (Shantz, 1987). The role of conflict within a family relationship is different from other interpersonal conflicts because families are characterized by closer, life-long relationships that change over time and developmental status (White, 2001). For example, parent-child conflict during toddlerhood may include physical restraint or control (Howes &

Olenick, 1986; Larzelere, 2000), whereas parent-child conflict during adolescence is more likely to include verbal rather than physical exchanges (Lee & Bates, 1985; Smetana, 1989). The focus of the current study will be on the verbal exchanges of disagreement between parents and children during the transition to early adolescence.

Most studies of verbal conflict within a family have relied on responses to questionnaires for their data (Vuchinich, 1984). Questions such as “What kinds of conflicts or disagreements do you have with your parents/child?” and “Did you have a disagreement yesterday over (insert conflict topic here)?” have been used to analyze the frequency and intensity of parent-adolescent conflict (Adams & Laursen, 2001; Papini & Sebby, 1988; Smetana, 1989). Research suggests that the primary topics of disagreement within families during adolescence are mundane activities such as room care, homework, school performance, curfews, and watching television (Adams & Laursen, 2001; Allison & Schultz, 2004; Papini & Sebby, 1988, Smetana, 1989; Smetana, Daddis, & Chuang, 2003). Other less commonly reported topics of conflict include chores, appearance, politeness, family relations, interpersonal relationships, and respect (Adams & Laursen, 2001; Galambos & Almeida, 1992; Smetana, 1989; Smetana, Daddis, & Chuang, 2003). Adolescents and parents report infrequent conflict over autonomy, jurisdiction, and negative personal moral characteristics (Allison & Schultz, 2004). Perhaps contrary to what one might suppose, conflict over substance use, abuse, and sex is much less common than conflict over most other issues (Allison & Schultz, 2004; Smetana, 1989). Collectively, research describing parent-child conflict demonstrates that there is little developmental change in the topics at issue throughout adolescence. However, the next section reviews research on the frequency and intensity of parent-child conflict, which shows a much different developmental picture (Galambos & Almeida, 1992).

Parent-Child Conflict and Developmental Change

When measuring the frequency of parent-child conflict, researchers generally use variations of similar measures, and when measuring the intensity of parent-child conflict, researchers commonly use some form of a rating scale. For example, the frequency of parent-adolescent conflict has been operationally defined and measured as a) a general summed number of events in disagreement (e.g., Flannery, Montemayor, Eberly, & Torquati, 1993; Holmbeck & Hill, 1991; Smetana, 1989), b) a more specific summed number of conflicts over day-to-day issues (e.g., Allison & Schultz, 2004; Holmes, Bond, & Byrne, 2008; Wierson, Armistead, Forehand, Thomas, & Fauber, 1990), and c) the number of times parents or children committed verbal and nonverbal acts against the other (e.g., Sagrestano, McCormick, Paikoff, & Holmbeck, 1999). Intensity has been operationally defined as the reported level of emotion or general impressions of conflict experienced by the parent or adolescent and is commonly measured using Likert-style scales ranging from "very calm" to "very angry" or from "very friendly" to "very angry" (e.g., Galambos & Almeida, 1992; Laursen, 1993). Using a variation of such measures is how many researchers have documented the developmental course of parent-child conflict from early childhood throughout adolescence.

Even though previous research has found that conflict topics remain quite consistent during adolescence, the frequency and intensity of parent-child conflict have shown more developmental changes (Shanahan, McHale, Osgood, & Crouter, 2007; Laursen, Coy, & Collins, 1998). Numerous researchers have focused on describing the normative developmental course of parent-adolescent conflict in terms of frequency (Flannery, Montemayor, Eberly, & Torquati, 1993; Holmes, Bond, & Byrne, 2008; Sagrestano, McCormick, Paikoff, & Holmbeck, 1999), intensity of conflict (Galambos & Almeida, 1992; Laursen, 1993; McGue, Elkins, Walden, &

Iacono, 2005), or a combination of the two (Allison & Schultz, 2004; Smetana & Asquith, 1994; Steinberg, 1988). Laursen, Coy, and Collins (1998) examined conflict frequency, intensity, and combinations of frequency and intensity in their meta-analysis of 39 studies that reported on the normative developmental course of parent-adolescent conflict. Of the 39 studies, 33 were cross-sectional studies, 4 were longitudinal studies, and 2 integrated longitudinal and cross sectional designs. Overall, Laursen and colleagues (1998) found distinct developmental patterns for the frequency and intensity of parent-child conflict. Conflict frequency decreased over the course of adolescence, with conflict occurring most frequently during early adolescence. In contrast, conflict intensity increased linearly with the most intense conflict occurring in middle-to-late adolescence. Whereas puberty may seem a likely influential factor on parent-adolescent conflict, age has been more consistently related to both the frequency and intensity of conflict. Mother-child and father-child conflict showed similar patterns, but developmental effects were stronger for mother-child than for father-child conflict. Further, the frequency of both mother-child and father-child conflict decreased from early to late adolescence, and the frequency of mother-child conflict decreased substantially more than father-child conflict. Lastly, while parent and child reports of conflict were similar, children consistently reported a bigger decline in the frequency of conflict throughout adolescence than did parents.

Laursen and colleagues' (1998) findings suggest that the normative developmental pattern of parent-child conflict during adolescence includes a decrease in the frequency of conflict and an increase in the intensity of conflict from early to late adolescence. Results from more recent studies have been consistent with the normative pattern of parent-child conflict described by Laursen and colleagues. In one study, a cross-sectional sample of early to middle adolescent youths reported more frequent conflicts with parents during early adolescence than during the

transition to middle adolescence (Allison & Schultz, 2004). Renk, Liljequist, Simpson and Phares (2005) found that conflict frequency over mundane activities such as household rules and responsibilities were significantly higher in early adolescence than middle or late adolescence. Additionally, Smetana, Daddis, and Chuang (2003) found that parent-child conflict intensity increased from early to middle adolescence. Moreover, Scaramella and Conger (2004) found that during an observational task that included discussions of conflict, negative affect displayed by adolescents and parents increased linearly over time from early to late adolescence. Therefore, it should be noted that, since Laursen and colleague's meta-analysis, normative developmental patterns of parent-adolescent conflict continue to be consistent in showing that the frequency of parent-child conflict decreases and the intensity of parent-child conflict increases throughout adolescence.

Individual Differences in Parent-Child Conflict

The focus of this section is to review studies that have explored factors associated with parent-child conflict. Compared to the relative abundance of research describing normative patterns of parent-child conflict, less attention has focused on understanding individual differences in parent-child conflict. Individual differences describe how people differ in the amount or level of characteristics shared by all individuals (e.g., feelings, behaviors, personality, age, or sex; Rubin & Boon-Chung, 2006). Berzonsky (1982) made the suggestion that researchers test parent-adolescent conflict as a continuum that varies as a function of multiple factors, while at the same time also noting differences in conflict between families. Potentially important variations between families have not been captured by studies exclusively focused on the overall mean-level differences in parent-adolescent conflict and few studies have specifically focused on individual differences in parent-adolescent conflict (Barber 1994).

Barber (1994) argued that describing normative developmental changes is not enough to explain individual differences in conflict and is therefore a major limitation in the literature. One theoretical framework that may help to understand the variations in parent-child conflict comes from Belsky (1984). Belsky theorized that there are three general sources of influence on parenting: child factors, parent factors, and contextual factors (see Figure 1). Although Belsky emphasized the importance of these factors as predictors of parental behaviors, researchers have demonstrated that many of the same groups of factors are associated with patterns of parent-child interactions (e.g., Meyers, 1999). Also, examining personal as well as contextual characteristics of the parent-child dyad may be helpful in understanding individual differences in parent-adolescent conflict. The current study utilized Belsky's sources of influence on parenting and adapted his model to help identify potential predictors of parent-adolescent conflict (see Figure 2). The model groups potential predictors into four groups: child, parent, contextual, and adolescence-specific. The following sections will review the literature on correlates of parent-child conflict organized according to the four groups. First, associations between child characteristics and parent-child conflict will be discussed, focusing on resistant to control temperament, antisocial behavior, and child depression. The second section will review the relationship between parent characteristics and parent-child conflict, concentrating on parent depression and parental hostility. The third section will review the link between contextual factors and parent-child conflict, with an emphasis on ethnicity, sex, and socioeconomic status (SES). The last section will discuss the associations between adolescence-specific factors and parent-child conflict, focusing on autonomy expectations and legitimacy beliefs.

Child Factors

Both parents and children add unique characteristics to their relationship that shape subsequent interactions with each other. Some of the most salient factors that have been associated with parent-child conflict and parent-child relationships include child temperament (Belsky, 1984; Dekovic, 1999; Lee & Bates, 1985), child depression (Adams & Laursen, 2001; Dekovic, 1999), and other child behavior problems (Adams & Laursen, 2001). Over the years, research regarding the association between child temperament and parent-child relationships has received much attention. To a lesser extent, researchers have found that temperament is associated with variations in the frequency of parent-child conflict (Barber, 1994; Dekovic, 1999; Eisenberg et al., 2008; Jaycox & Repetti, 1993).

A child's temperament, beginning as early as infancy, may explain in part parent-child conflicts at different developmental stages. Longitudinally, child temperament at 6 and 13 months has predicted more frequent parent-child conflict during toddlerhood (Lee & Bates, 1985) and, cross-sectionally, early to late adolescent difficult temperament has been associated with more frequent parent-adolescent conflict (Kawaguchi, Welsh, Powers, & Rostosky, 1998). Difficult temperaments have been associated with more frequent parent-child conflict cross-sectionally in early adolescence (Galambos & Turner, 1999) and in early to late adolescence (Dekovic, 1999). Also worth noting, difficult temperaments have been associated with conflict reactions longitudinally in a sample of early to late adolescent youth (Eisenberg et al., 2008). Easy temperaments have been associated with less frequent parent-child conflict. Adaptive temperaments (e.g. how well an individual performs socially) have been associated with less frequent conflicts in early adolescent youth (Galambos & Turner, 1999). Overall, studies of temperament and parent-adolescent conflict suggest that higher levels of difficult child

temperamental characteristics (even at very young ages) are associated with more frequent parent-adolescent conflict throughout childhood and into adolescence. The current study will expand on previous findings by not only exploring the association between the frequency of parent-adolescent conflict and resistant to control temperament, but also the association between the intensity of parent-adolescent conflict and resistant to control temperament. A resistant to control temperament is an aspect of a difficult temperament that taps a child's negative emotional reaction and resistance to being controlled by others (Bates, 1996).

In addition to temperament, behavior problems are associated with individual differences in parent-adolescent conflict. To date, studies have linked more behavior problems in youth with more frequent parent-adolescent conflict (Adams & Laursen, 2001; Bradford, Vaughn, & Barber, 2008; Shek, 1997; Wijsbroek, Hale, Van Doorn, Raaijmakers, & Meeus, 2010). Although researchers have primarily conceptualized and tested parent-child conflict as a contributor to adolescent behavior problems, it is likely that the association between behavior problems and conflict is bidirectional. Shek (1997) for example, found that more frequent parent-child conflict in early adolescence predicted higher levels of depression one year later and higher levels of depression in early adolescence predicted more frequent parent-child conflict one year later. Unfortunately, most studies of parent-child conflict are cross-sectional and few longitudinal studies have tested similar bidirectional links between parent-child conflict and behavior problems. Cross-sectional studies have found that frequent parent-child conflict is associated with high levels of internalizing and externalizing behavior problems during pre to early adolescence (Jaycox & Repetti, 1993), higher levels of depression during later adolescence (Bradford, Vaughn, & Barber, 2008), and more externalizing antisocial behavior during adolescence overall (O'Connor, Dunn, Jenkins, & Rashbash, 2006). Additionally, Rueter,

Scaramella, Wallace, Rand, and Conger (1999) found that frequent parent-child conflicts during early and middle adolescence were associated with concurrent levels of internalizing behavior problems, while changes in conflict through early adolescence also predicted changes in internalizing behaviors longitudinally. Collectively, results from studies on parent-child conflict and behavior problems indicate that parent-child conflicts and behavior problems are associated concurrently, influence each other reciprocally, and are related over time. The current study will examine associations between behavior problems, both antisocial behavior and child depression, and the frequency and intensity of parent-child conflict.

It can be concluded from previous studies, that frequent parent-adolescent conflict is associated with difficult temperaments and more behavior problems. Research studies examining temperament and behavior problems have focused on conflict frequency and suggest that individual differences in conflict are likely to be associated with variations in child temperament and behavior problems. Therefore, in the current study, it is the expectation that a resistant to control temperament, antisocial behavior, and child depression will each explain a significant portion of the variance in parent-adolescent conflict frequency and intensity both concurrently and longitudinally.

Parent Factors

Research has shown that the personal characteristics of parents predict both parenting behavior and parent-child interactions (Paikoff & Brooks-Gunn, 1991). Further, unstable parent-adolescent relationships have been related to parent depression and parental hostility (Cummings & Davies, 1994; Stocker & Youngblade, 1999). Although parental depression has a well-documented association with individual differences in parenting behaviors broadly (Webster-

Stratton & Hammond, 1988), parental hostility may be more relevant to parent-child conflict (Harold & Conger, 1997).

Whereas parental depression has been associated with poor parent-child relationships, limited research has explored links between parental depression and parent-child conflict specifically. One study showed that frequent parent-child conflict during early to middle adolescence was associated with high levels of parental depression (Sarigiani, Heat, & Camarena, 2003). Another study found that frequent parent-child conflicts during early to late adolescence were associated with high levels of parental depression (Kane & Garber, 2004). Additionally, frequent parent-child conflict during late adolescence has been associated with high levels of parental depression (Marmorstein & Iacono, 2004). Lastly, higher levels of parental depression have been associated with more frequent parent-child conflict in children ranging in age from 6 to 23 (Fendrich, Warner, & Weissman, 1990). Research evaluating parental depression and parent-child conflict consistently shows that high levels of parental depression are associated with more frequent parent-child conflict.

High levels of parental hostility have been associated with more frequent parent-child conflict during early adolescence (Allan, Kashani, & Reid, 1998), but the majority of research on parental hostility has focused on marital and family conflict rather than parent-child conflict. For example, parental hostility was associated with more frequent sibling and peer conflict (Stocker & Youngblade, 1999) and with more marital conflict during early adolescence (Franck & Buehler, 2007; Gordis, Margolin, & John, 1997; Low & Stocker, 2005). Altogether though, high levels of parental depression and parental hostility have been associated with more negative experiences in the parent-child relationship, including parent-child conflict. Consequently, in the current study it is the expectation that parental depression and hostility will be associated with

individual differences in the frequency and intensity of parent-adolescent conflict both concurrently and longitudinally.

Contextual Factors

Belsky (1984) proposed that contextual factors are important predictors of parenting behaviors and parent-child interactions. Additional research has shown that contextual factors are important sources of individual differences in behavior (Furman & Buhrmester, 1992; Laursen, Coy, & Collins, 1998). Therefore, it is likely that contextual factors such as ethnicity, sex, and socio-economic status (SES) are associated with individual differences in parent-child conflict. The following section will examine the associations between parent-child conflict and ethnicity, sex, and SES.

Studies testing associations between parent-adolescent conflict and ethnicity have primarily emphasized high rates of conflict in Caucasian families. Caucasian adolescents have reported more frequent parent-adolescent conflict than Hispanic adolescents (Suarez-Orozco & Suarez-Orozco, 1996), than Black, Hispanic, and Asian adolescents combined (Barber, 1994), and more than Hispanic, Filipino, and Mexican adolescents combined (Fuligni, 1998). However, at least one study indicated no significant ethnic differences in parent-adolescent conflict (Dixon, Graber, & Brooks-Gunn, 2008). Since few studies have specifically tested ethnic differences in parent-adolescent conflict, generalizing findings to the greater population is limited (Brooks-Gunn & Reiter, 1990). Nonetheless, previous findings on parent-adolescent conflict have led to the expectation that European American adolescents in the current study will report more frequent and more intense parent-adolescent conflict than African American adolescents. Studies specifically testing sex differences in parent-adolescent conflict are limited but generally consistent. Montemayor (1982) found that middle adolescent girls reported more frequent

conflict with parents than did middle adolescent boys. Likewise, Rudolph and Hammen (1999) found that during pre-adolescence and adolescence, girls experienced a much higher frequency of parent-child conflict with parents than boys. Furthermore, Allison and Schultz (2004) found that early to middle adolescent boys and girls both reported frequent conflict with their parents, but girls reported more intense conflict with parents than boys. In contrast, Fuligni (1998) found that early to late adolescent girls reported less frequent conflict with parents than early to late adolescent boys. In summary, most of the evidence in support for sex differences in parent-adolescent conflict reveals that girls report more frequent conflict than boys. For this reason, in the current study it is the expectation that girls will report more frequent and intense conflict with parents than boys.

Overall, most researchers define an individual's SES as a combination of family income, educational level, occupation, and social status (Demarest et al., 1993). Research findings suggest that SES is associated with the quality of parent-adolescent relationships. Families with high incomes report higher quality relationships, whereas families with low incomes report lower quality relationships (Hair, Moore, Garrett, Ling, & Cleveland, 2008). Therefore the expectation is that low SES families would report more frequent conflict than high SES families. However, one study found that high SES families with early to middle adolescents reported more frequent parent-adolescent conflict than middle SES families (Silverberg & Steinberg, 1987). Others have found that SES indicators are unrelated to parent-adolescent conflict. At least two studies have found that family income and level of education were unrelated to parent-adolescent conflict (Bradford, Vaughn, & Barber, 2008; O'Connor, Dunn, Jenkins, & Rasbash, 2006). Subsequently, it appears that research pertaining to SES and parent-child conflict is inconclusive, although sample composition of past research in terms of SES does vary considerably. Even

though no specific hypotheses have derived from previous studies, the current study will test family income levels as predictors of parent-adolescent conflict.

Adolescence-specific Factors

Belsky's (1984) model attends to factors that influence parenting and parent-child interactions, but does not focus on developmental changes in parenting or parent-child interactions. However, parenting tasks and the focus of parent-child interactions change developmentally. Therefore, it is important to consider factors salient during adolescence when focusing on predictors of individual differences in parent-adolescent conflict. In particular, individual differences in parent-adolescent conflict may be associated with developmentally relevant tasks such as autonomy negotiation (Fuligni, 1998; Omatseye, 2007; Smetana & Asquith, 1994; Spear & Kulbok, 2004) and changing conceptions of the legitimacy of parental authority (Smetana & Asquith, 1994; Tisak, 1986; Darling, Cumsille, & Martinez, 2008). Autonomy development is a set of changes that occur in behavior, emotion, and thinking which all work together in helping the adolescent gain a sense of independence and the freedom to make their own choices (Hill & Holmbeck, 1986; Spear & Kulbok, 2004; Steinberg, 1999). Autonomy expectations are the increased expectations adolescents have for making their own decisions over various topics that are frequently negotiated during parent-child conflicts (Zimmer-Gembeck & Collins, 2003). Legitimacy beliefs are adolescents' beliefs regarding the authority parents have to set rules about youths' behavior (Darling, Cumsille, & Martinez, 2008). The following section will review the current literature linking parent-adolescent conflict with autonomy expectations and legitimacy beliefs.

Albeit researchers note autonomy development during adolescence as a critical task, more frequent parent-adolescent conflict is associated with autonomy expectations regarding more

individuation (Allen, Hauser, Bell, & O'Connor, 1994). Frequent parent-child conflict has been associated with earlier autonomy expectations (i.e. expecting autonomy sooner rather than later) in early to late adolescent youths (Phinney, Kim-Jo, Osorio, & Vilhjálmsdóttir, 2005) and in middle adolescent youths (Lichtwarck-Aschoff, Kunnen, & Geart, 2010; Allen, Hauser, O'Connor, Bell, & Eickholt, 1996). Since earlier autonomy expectations are associated with more frequent parent-child conflict during adolescence, it is expected that in the current study earlier autonomy expectations will be associated with more frequent and intense parent-adolescent conflict.

Although it is likely that adolescents expect more responsibility and independent decision making with age, adolescents still view parental decision making as legitimate in most areas (Smetana & Asquith, 1994). During adolescence, weak legitimacy beliefs suggest that adolescents are less likely to adhere to their parents' rules and weak legitimacy beliefs have been associated with more frequent parent-adolescent conflict as well as increases in misbehavior (Darling, Cumsille, & Martinez, 2008). Results from Darling, Cumsille, and Pena-Alampay's (2005) review suggest that weak legitimacy beliefs contribute to frequent parent-adolescent conflict. Smetana and Asquith (1994) found that weak legitimacy beliefs, especially over personal issues, were associated with more frequent parent-adolescent conflict in early to late adolescent youth. Additionally, in several studies, Smetana and colleagues have found that weak legitimacy beliefs were associated with more frequent parent-child conflict in samples spanning from early to late adolescence (Smetana, 1988, 1991, 1993). As a whole, findings indicate that weak legitimacy beliefs are associated with frequent parent-child conflict throughout adolescence. Therefore, the expectation in the current study is that weak legitimacy beliefs will also be associated with more frequent and intense parent-adolescent conflict.

Summary and Statement of the Problem

Despite the fact that increases in conflict between parents and adolescents appear to be normative, variations between families in the frequency and intensity of conflict are not well understood (Barber, 1994). Even with repeated suggestions by researchers to examine predictors of parent-adolescent conflict, few have taken on the task.

In response to the lack of research addressing the sources of individual differences in parent-adolescent conflict, the purpose of the current study will be to conduct a multivariate analysis testing concurrent correlates and longitudinal predictors of parent-adolescent conflict. The four groups of variables to be tested as correlates and predictors are child, parent, contextual, and adolescence-specific factors.

Hypotheses

1. Parent-adolescent conflict frequency and intensity will be significantly associated with the four groups of factors. More frequent and more intense conflict will be associated with higher levels of child depression, more resistant to control temperament, more antisocial behavior, higher levels of parental hostility, higher levels of parent depression, weaker legitimacy beliefs, and earlier autonomy expectations. Girls will report more frequent and more intense conflict than boys and European American adolescents will report more frequent and more intense conflict than African American adolescents. No specific direction of effect is hypothesized for the association conflict frequency or conflict intensity and income. All of the variables will be inter-correlated. The child factors will have the strongest correlations with all of the other factors and the child group of factors also will have stronger correlations with each of the other group of factors. Parent-adolescent conflict will have significant associations with four groups of

factors after controlling for the other index of conflict. After controlling for the other index of conflict, more frequent conflict and more intense conflict will be associated with higher levels of child depression, more resistant to control temperament, more antisocial behavior, higher levels of parental hostility, higher levels of parent depression, weaker legitimacy beliefs, and earlier autonomy expectations. Girls will report more frequent and more intense conflict than boys and European American adolescents will report more frequent and more intense conflict than African American adolescents. No specific direction of effect is hypothesized for the association between conflict frequency or conflict intensity and income.

2. The four groups of factors will each significantly predict parent-adolescent conflict when entered separately and simultaneously.
 - a. Each group of factors will account for unique variance in conflict when controlling for the other index of conflict.
 - b. Each variable within each group will account for unique variance in conflict.
 - c. Each group of factors will account for unique variance in conflict when controlling for the other index of conflict and all other factors.
 - d. Each variable within each group will account for unique variance in conflict.
3. Parent-adolescent conflict will have a significant longitudinal association with the four groups of factors. More frequent and more intense time 2 conflict will be associated with higher levels of child depression, more resistant to control temperament, more antisocial behavior, higher levels of parental hostility, higher levels of parental depression, weaker legitimacy beliefs, and earlier autonomy expectations after controlling for time 1 conflict. Girls will report more frequent and more intense conflict than boys and European

American adolescents will report more frequent and more intense conflict than African American adolescents. No specific direction of effect is hypothesized for the association between parent-adolescent conflict frequency and intensity and income.

4. The four groups of factors will each significantly predict time 2 conflict when entered separately and simultaneously.
 - a. Each group of factors will account for unique variance in time 2 conflict when controlling for the other index of time 2 conflict and time 1 conflict.
 - b. Each variable within each group will account for unique variance in time 2 conflict.
 - c. Each group of factors will independently emerge as a unique longitudinal predictor of time 2 conflict when controlling for the other index of time 2 conflict, time 1 conflict, and all other factors.
 - d. Factors within each group not differ in predicting time 2 conflict.

Method

Participants

A secondary data analysis of the Baton Rouge Families and Teens Project (BRFTP) was conducted. Data were collected from a total of 218 mother-adolescent dyads recruited from 20 public elementary schools in the Baton Rouge, Louisiana area. Adolescents participated in home interviews during the summers following their fifth, sixth, and seventh grades of school. The sample consisted of 51% girls and 49% boys who were approximately 11 years old during the summer interviews following fifth grade (*M* age 11 years, 11 months, Range = 10 years, 7 months to 13 years, 9 months). At the time of data collection 73% of adolescents resided in a two-parent home. Participants primarily reported being Caucasian, non-Hispanic (49%) or African American (47%). The mean reported yearly income was between \$40,000 and \$60,000 and

ranged from \$10,000 to more than \$100,000 a year. Mother education varied with the majority having at least attended college (20% held a graduate degree, 27% a bachelor's degree, 39.4% attended college or technical school, 10% held a high school diploma, and 3% did not complete high school). This study will look at data from the fifth and sixth grade interviews based on availability of the predictors of interest. The current study focuses on adolescent reports of all variables with the exception of the parent-reported hostility and depression.

Materials and Procedure

Following IRB approval and prior to conducting interviews, researchers obtained active parental consent and youth assent for research. During the spring of 2006 and 2007, research assistants distributed information letters to fifth grade student classrooms. Postcards or forms were returned by 20% of the fifth graders and 94% of the families contacted by phone completed the interviews. Interviews were conducted in separate locations of the participants' homes by undergraduate or graduate student interviewers to ensure privacy, and participants individually recorded their responses to the questions on answer sheets provided by the researcher. All participants were compensated \$50 per family in year 1 and \$70 in year 2.

Measures

Parent-adolescent conflict. Parent-adolescent conflict was evaluated using Robin and Foster's (1989) measure designed to assess the frequency and intensity of parent-adolescent conflict. A modified ten-item list included five items from Robin and Foster's *Issues Checklist* (e.g. "How many times in the past 4 weeks...have you talked about cleaning up your bedroom, talking back to parents...and how angry were these discussions ") and five items developed to focus specifically on parent-child conflict related to parents' efforts to monitor the adolescents' free time behavior and peer relationships (e.g. "getting in trouble or making bad grades at school" and

"lying"). For each question, parents and adolescents reported how often they discussed the topic over the past four weeks using a 3-point scale from "never" to "lots of times". For items that were discussed, parents and adolescents also responded to a question assessing the intensity of the conflict during the discussions using a 3-point scale from "calm" to "very angry." Two scores were calculated from each person, a conflict frequency score was computed as the mean of the 10 frequency items ($\alpha = .70$ for both years) and a conflict intensity score was computed as the mean of the 10 intensity items ($\alpha = .62$ & $.71$, for years 1 and 2, respectively). Internal consistency scores of both Caucasian and African American adolescents have ranged from .47 to .85 and parents have ranged from .63 to .88 (Galambos & Almeida, 1992; Gonzales, Cauce, & Mason, 1996; Riesch, et al., 2000). Evidence of validity comes from studies showing that the checklist is sensitive to treatment effects (Robin & Foster, 1989) and evidence that distressed parents and adolescents report significantly higher scores than non-distressed parents and adolescents (Foster, Prinz, & O'Leary, 1983; Robin & Foster, 1989).

Temperament. Items adapted from the *Youth Characteristics Questionnaire* (Bates, 1996) were used to measure resistant-to-control temperament. Adolescents responded to six items (e.g., "When someone has told you not to do something, how often do you start doing it when he or she is not watching?" and "How often do you frown or complain when told what or what not to do?") using a 5-point scale ranging from "never" to "always." The mean of the six resistant-to-control temperament items served as the temperament score ($\alpha = .78$).

Antisocial Behaviors. Antisocial behavior was measured with a modified version of the *Problem Behavior Frequency Scale* (Farrell, Kung, White, & Valois, 2000). The scale measures specific antisocial behaviors including drug use, violence, and delinquent behaviors. Adolescents reported their involvement in antisocial behaviors in the past month using 26-items (e.g., "How

many times did you skip school?"). Participants responded using an abbreviated frequency scale ranging from "never" to "7 or more times". The mean of the 26 items will serve as the antisocial behavior ($\alpha = .92$). Researchers have found that test-retest reliability for the Problem Behavior Frequency Scale is acceptable ranging from .76 to .88 (Farrell et al., 1998). Researchers have also found internal consistency for rural and urban adolescents ranging from .87 to .88 (Farrell, Kung, White, & Valois, 2000).

Adolescent Depressed mood. Adolescent depressed mood was measured using the *Modified Depression Scale* (Orpinas, 1993). The MDS includes six items measuring the frequency of depressive symptoms in the last month (e.g., "How often were you very sad?" and "How often did you feel hopeless about the future?") using a 5-point scale ranging from "never" to "always". The mean of the six depression items served as the depressed mood score ($\alpha = .75$). Previous research has reported internal consistency as .74 (Orpinas, 1993).

Parental Depression. The *CES-D Scale* (Radloff, 1977) is a widely used 20-item scale designed to measure depressive symptoms in the general population (e.g., "I had trouble keeping my mind on what I was doing," "My sleep was restless," and "I felt lonely"). Parents reported how often they felt depressive symptoms over the past week on a 4-point scale ranging from "rarely or none of the time" to "most or all of the time" with high scores indicating more depression symptoms present. The mean of the 20 items served as a parental depression score ($\alpha = .81$). Reliability has been recorded as good in the general population .85 and in clinical samples .90 (Radloff, 1977).

Parental Hostility. The *Buss-Durkee Inventory* was used to assess parental hostility in the current study (Buss & Durkee, 1957). In the original scale, parents reported on 14 overt hostility items and 7 covert hostility items on a 4-point scale ranging from "usually false" to "usually

true." The current study only focused on the 14 overt hostility items (e.g., "I never get mad enough to throw things," "If somebody annoys me, I am apt to tell her what I think of her," and "I can't help getting into arguments when people disagree with me"). In the current study, the mean of the 14 items served as the parental hostility score ($\alpha = .38$). Test-retest reliability has been satisfactorily exhibited for overt hostility ranging from .64 to .78 (Biaggio, Supplee, & Curtis, 1981) and validity is well represented with strong correlations with other self-report measures, and significant differences between violent and nonviolent criminals (Gunn & Gristwood, 1975; Schell, Romania, & Conn, 1990).

Legitimacy Beliefs. Adolescents reported their beliefs regarding the legitimacy of parental authority using five items modeled from an existing measure (Smetana, 2000). The five legitimacy beliefs items index whether adolescents deem it "OK for parents to make rules" about a number of areas relevant to teens' lives such as the types of movies pre-teens watch or music pre-teens listen to, and how pre-teens spend their free time. The mean of the affirmative responses to the five questions served as the legitimacy beliefs score ($\alpha = .47$). Previous studies conducted by Smetana and colleagues have found the reliability and validity of the items adequate ranging from .74 to .91 (Smetana, 1995, 2000, 2006).

Autonomy Expectations. Items were taken from measures designed to assess adolescent reported expectations about their autonomous behaviors (Feldman & Quatman, 1988; Feldman & Rosenthal, 1990). For each of the 15 items, adolescents indicated the age at which they believed they should be allowed autonomy (e.g., "Come home at night as late as you want," "Watch as much TV as you want") using a 5-point scale ranging from "I can do that now" to "never." The mean of the 15 items indexed the adolescent reported autonomy expectations score ($\alpha = .74$). The measure has exhibited high internal consistency ranging from .85 to .86 (Fulgini, 1998).

Due to the initial design of the survey, which did not include a measure of autonomy expectations, after initial data collection one cohort was missing data for this variable.

Therefore, regression analyses were completed with the statistical software Mplus due to its ability to account for missing values using maximum likelihood.

Demographic characteristics. Information on the adolescents' age, sex, ethnicity, and SES were obtained from a demographic questionnaire completed by the mother during the grade 5 interviews. Adolescent *age* on the day of the interview following fifth grade was computed using the adolescents' date of birth. Ethnicity was recoded into two dummy variables; one for *African American ethnicity* and another for *other ethnicity* with European American ethnicity serving as the contrast group. Income was used as the measure of SES which was rated on an 8-point scale ranging from "less than \$5000" to "more than \$100,000."

Data Analysis Plan

Hypothesis 1. Bivariate correlations were conducted to examine the associations between the frequency and intensity of parent-adolescent conflict and each of the child, parent, contextual, and adolescence-specific factors. In addition, partial correlations were computed between each predictor and conflict frequency controlling for conflict intensity, and between each predictor and conflict intensity controlling for conflict frequency.

Hypothesis 2. Each index of time 1 parent-adolescent conflict was regressed on each set of predictors separately and on the four sets of predictors simultaneously.

- a. Separate hierarchical regressions were used to examine each group's contribution to parent-adolescent conflict, focusing on the incremental changes in R^2 . In the first regression model, conflict frequency was regressed on the child factors controlling for conflict intensity. The analysis was repeated with each group predicting conflict

frequency controlling for conflict intensity to calculate the unique R^2 for each group. All analyses were repeated predicting conflict intensity controlling for conflict frequency.

b. The unique contributions of each of the factors in predicting conflict frequency and conflict intensity was evaluated by examining the betas when each group was in the regression.

c. Simultaneous hierarchical regressions were used to examine the unique contributions of each group in predicting parent-adolescent conflict, focusing on the incremental changes in R^2 . In the first regression model, conflict frequency was regressed on the child factors controlling for conflict intensity and all other factors. The analysis was repeated with each group predicting conflict frequency controlling for conflict intensity and all other factors to calculate the unique R^2 for each group. All analyses were repeated predicting conflict intensity controlling for conflict frequency and all other factors.

d. The unique contributions of each of the factors in predicting conflict frequency and conflict intensity was evaluated by examining the betas when all variables were in the regression.

Hypothesis 3. Partial correlations were computed to examine the relationship between each predictor and time 2 conflict frequency controlling for time 1 conflict and time 2 conflict intensity, and between each predictor and time 2 conflict intensity controlling for time 1 conflict and time 2 conflict frequency.

Hypothesis 4. Each index of time 2 parent-adolescent conflict was regressed on each set of predictors separately, and then on the four sets of predictors simultaneously.

a. Separate hierarchical regressions were used to examine each group's contribution to parent-adolescent conflict, focusing on the incremental changes in R^2 . In the first

regression model, time 2 conflict frequency was regressed on the child factors controlling for time 1 conflict and time 2 conflict intensity. The analysis was repeated with each group predicting time 2 conflict frequency to calculate the unique R^2 for each group. All analyses were repeated predicting time 2 conflict intensity controlling for time 1 conflict and time 2 conflict frequency.

b. The unique contributions of each of the factors in predicting time 2 conflict frequency and time 2 conflict intensity was evaluated by examining the betas when each group was in the regression.

c. Simultaneous regressions were used to examine the unique contributions of each group of factors in predicting time 2 parent-adolescent conflict focusing on the incremental changes in R^2 . In the first regression model, time 2 conflict frequency was regressed on the child factors controlling for time 1 conflict, time 2 conflict intensity, and all other factors. The analysis was repeated with each group predicting time 2 conflict frequency controlling for time 1 conflict, time 2 conflict intensity, and all other factors to calculate the unique R^2 for each group. All analyses were repeated predicting time 2 conflict intensity controlling for time 1 conflict, time 2 conflict frequency, and all other factors.

d. The unique contributions of each of the factors in predicting time 2 conflict frequency and time 2 conflict intensity was evaluated by examining the betas when all variables were in the regression.

Results

Results are presented in three sections. The first section focuses on descriptive statistics and correlations between parent-adolescent conflict and the child, parent, contextual, and adolescence-specific factors. The next section focuses on results from tests of concurrent

associations between conflict frequency and conflict intensity and predictors. Finally, the last section focuses on findings from tests of longitudinal associations between conflict frequency and conflict intensity and predictors.

Descriptive Statistics and Correlations

The means, standard deviations, and correlations between parent-adolescent conflict and all predictor variables are provided in Table 1. In year 1, adolescents reported a mean conflict frequency score of 1.76 (SD = .39; Range 1.6 - 2.3) corresponding to a score falling between "never" and "once or twice." Conflict frequency remained fairly stable with slightly less frequent conflict (M = 1.70, SD = .36) in the second year, $t(181) = 1.78, p = .08$. In year 1, adolescents reported a mean intensity score of 1.49 (SD = .39; Range 1.2 - 1.9), with the angriest person falling between "being calm and "a little angry." Significantly more intense conflict (M = 1.55, SD = .38) was reported during the second year, $t(178) = -2.09, p = .04$. Year 1 conflict frequency was strongly associated year 2 conflict frequency, and year 1 conflict intensity was strongly associated with year 2 conflict intensity. However, conflict frequency was only moderately associated with conflict intensity within each year.

Significant associations were found within each group of factors and the child group of factors had stronger associations with each of the other groups of factors. Higher levels of child depression were associated with more antisocial behaviors and a more resistant to control temperament. More antisocial behaviors were also associated with a more resistant to control temperament. More parental hostility was associated with higher levels of parent depression. Additionally, earlier autonomy expectations were associated with weaker legitimacy beliefs. African American families within this sample generally had less income than European

American families. Compared to the other predictors, the child factors were significantly associated with more of the factors.

In terms of bivariate correlations between conflict and the predictors, more frequent conflict in years 1 and 2 was significantly associated with more antisocial behaviors, higher levels of child depression, and lower income. Teens reporting more frequent conflict were more likely to be African American than European American. More frequent conflict in year 1 also was associated with later autonomy expectations and more frequent conflict in year 2 also was associated with a more resistant to control temperament. More intense conflict in years 1 and 2 was significantly associated with a more resistant to control temperament, more antisocial behaviors, higher levels of child depression, and weaker legitimacy beliefs. More intense conflict in year 1 also was associated with more parental hostility, higher levels of parent depression, and lower income. Teens reporting more intense conflict in year 1 were more likely to be African American than European American.

Multivariate Analyses

Three sets of multivariate analyses were conducted to test concurrent associations and then were repeated to test longitudinal associations for a total of six sets of analyses. First, partial correlations were calculated to test associations between predictors and conflict frequency and conflict intensity controlling for the other aspect of conflict. Next, conflict frequency (controlling for conflict intensity) then conflict intensity (controlling for conflict frequency) was regressed on each set of predictors to identify the unique variance accounted for by the

Table 1. *Summary of Correlations, Means, and Standard Deviations*

Variable	<i>M (SD)</i>	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Temperament	2.58 (.80)	.56**	.54**	.02	.19**	.16*	.07	-.07	-.25*	-.45**	.10	.52**	.15*	.27**
2. Antisocial Behavior	1.47 (.47)	-	.45**	.13	.18**	-.11	-.21**	.17*	-.18	-.33**	.19**	.44**	.31**	.36**
3. Depression	2.63 (.83)		-	.14*	.15*	-.13	.08	-.15*	-.18	-.37**	.18**	.45**	.26**	.29**
4. Parent Hostility	1.89 (.52)			-	.30**	-.17*	.03	-.11	-.01	.07	.10	.14*	.08	.08
5. Parent Depression	1.42 (.44)				-	-.31**	-.10	-.07	-.25*	-.14*	.01	.27**	.01	.09
6. Income	5.43(1.83)					-	.03	.39**	.12	.15*	-.24**	-.22**	-.25**	-.09
7. Sex (0 female, 1male)	.49 (.50)						-	-.04	.00	-.03	.00	.04	.06	.04
8. Ethnicity (1 AA, 2 EA)	1.50 (.50)							-	.14	.25**	-.16*	-.14*	-.22**	-.04
9. Autonomy Expectations	2.89 (.57)								-	.49**	.28*	-.10	.14	.03
10. Legitimacy Beliefs	.70 (.24)									-	-.12	-.35**	-.13	-.23**
11. Conflict Frequency (1)	1.77 (.37)										-	.23**	.42**	.21**
12. Conflict Intensity (1)	1.48 (.38)											-	.12	.45**
13. Conflict Frequency (2)	1.70 (.36)												-	.23**
14. Conflict Intensity (2)	1.55 (.38)													-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Sex is dummy coded 0 for female and 1 for male. Ethnicity is coded 1 for African American and 2 for European American.

individual predictors within each group. Finally, conflict frequency then conflict intensity was simultaneously regressed on all predictors controlling for all other factors to identify the unique variance accounted for by predictors as a group. The three sets of analyses were repeated with year 2 conflict frequency and intensity as outcomes controlling for year 1 conflict frequency and intensity.

Concurrent Associations

After controlling for conflict intensity, more frequent conflict remained associated with lower income and later autonomy expectations (see Table 2, partial r column). Next, conflict frequency was regressed on each set of predictors controlling for conflict intensity. When each set of predictors was tested separately (see Table 2, each set columns), the set of contextual factors and the set of adolescent factors explained a significant portion of variance in conflict frequency. Although none of the individual contextual factors explained unique variance in conflict frequency, later autonomy expectations and weaker legitimacy beliefs were uniquely associated with more frequent conflict.

Finally, conflict frequency was regressed on all predictors simultaneously. When all predictors were included in the same model (see Table 2, all sets columns), the set of child factors and the set of adolescent factors explained unique variance in conflict frequency. More frequent conflict was uniquely associated with more antisocial behaviors, lower income, later autonomy expectations, and weaker legitimacy beliefs. However, when entered simultaneously, the increased beta weights for antisocial behavior, income, autonomy expectations, and legitimacy beliefs may have been the result of suppressor effects.

Table 2. *Concurrent Predictors of Parent-Adolescent Conflict Frequency (PAC)*

Predictor Set	Partial <i>r</i>	Each Set Individually		All Sets Simultaneously	
		β	ΔR^2	β	ΔR^2
Control Variables					
PAC intensity	.23**	.18	.25**	.11	
Child Factors					.03*
Resistance to Control	-.04	-.14		-.12	
Depressed Mood	.08	.10		.09	
Antisocial behaviors	.09	.13		.16*	
Parent Factors			.01		.01
Depression	-.06	-.09		-.08	
Hostility	.08	.10		.09	
Contextual Factors			.03*		.05
Income	-.19**	-.08		-.17*	
Sex (0 = female, 1 = male)	-.02	-.01		-.03	
Ethnicity (1 = AA, 2 = EA)	-.13	-.12		-.08	
Adolescent Factors			.07**		.09**
Autonomy Expectations	.28*	.30**		.36***	
Legitimacy Beliefs	-.03	-.19*		-.20*	
Total R^2					.21**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Sex is dummy coded 0 for female and 1 for male. Ethnicity is coded 1 for African American and 2 for European American.

Analogous sets of analyses were conducted for conflict intensity controlling for conflict frequency. After controlling for conflict frequency, more intense conflict remained associated with a more resistant to control temperament, higher levels of depressed mood, more antisocial behaviors, more parent depression, lower income, and weaker legitimacy beliefs (see Table 3 partial *r* column). When each set of predictors was tested separately (see Table 3, each set columns), all four sets of predictors explained a significant portion of variance in conflict intensity. More intense conflict was uniquely associated with a more resistant to control temperament, higher levels of depressed mood, more antisocial behaviors, higher levels of parent depression, and weaker legitimacy beliefs.

When all predictors were included in the same model (see Table 3, all sets columns), only the set of child factors explained unique variance in conflict intensity. More intense conflict remained uniquely associated with a more resistant to control temperament, higher levels of depressed mood, more antisocial behaviors, higher levels of parent depression, and weaker legitimacy beliefs.

Table 3. *Concurrent Predictors of Parent-Adolescent Conflict Intensity (PAC)*

Predictor Set	Partial <i>r</i>	Each Set Individually		All Sets Simultaneously	
		β	ΔR^2	β	ΔR^2
Control Variables					
PAC frequency	.23**	.14	.23**	.08	
Child Factors					.16**
Resistance to Control	.52***	.33**		.28***	
Depressed Mood	.43***	.19**		.16**	
Antisocial behaviors	.41***	.14*		.13*	
Parent Factors					.07**
Depression	.28***	.26**		.15**	
Hostility	.11	.03		.05	
Contextual Factors					.02*
Income	-.18*	-.11		-.06	
Sex (0 = female, 1 = male)	.04	-.04		.00	
Ethnicity (1 = AA, 2 = EA)	-.10	-.06		-.01	
Adolescent Factors					.11**
Autonomy Expectations	-.13	.10		.18	
Legitimacy Beliefs	-.33***	-.38**		-.17*	
Total R^2					.41**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Sex is dummy coded 0 for female and 1 for male. Ethnicity is coded 1 for African American and 2 for European American.

Longitudinal Analyses

After controlling for all conflict in year 1 and conflict intensity in year 2 (see Table 4, partial r column), African American teens reported significantly more frequent conflict than European American teens. More frequent conflict in year 2 remained associated with higher levels of depressed mood, more antisocial behaviors, and lower income. When each set of predictors was tested separately (see Table 4, each set columns), only the child factors explained a significant portion of variance in year 2 conflict frequency. More frequent conflict in year 2 remained uniquely associated with higher levels of depressed mood, more antisocial behavior, and African American teens still reported significantly more frequent conflict.

When all predictors were included in the same model (see Table 4, all sets columns), only the set of child factors explained unique variance in year 2 conflict frequency. More frequent conflict in year 2 was uniquely associated with higher levels of depressed mood and more antisocial behaviors.

Table 4. *Longitudinal Prediction of Parent-adolescent Conflict frequency (PAC2)*

Predictor Set	Partial <i>r</i>	Each Set Individually		All Sets Simultaneously	
		β	ΔR^2	β	ΔR^2
Control Variables					
PAC frequency	.39***	.00-.06		.26***	
PAC intensity	-.05	.34-.42**		-.19*	
PAC2 intensity	.17*	.13-.19*		.11	
Child Factors					
Resistance to Control	.12	-.04	.08**	-.02	.07**
Depressed Mood	.21**	.17*		.18*	
Antisocial behaviors	.25**	.24**		.23**	
Parent Factors					
Depression	.01	-.02	.00	-.03	.01
Hostility	.04	.05		.04	
Contextual Factors					
Income	-.17*	-.07	.04	-.12	.04
Sex (0 = female, 1 = male)	.07	.07		.03	
Ethnicity (1 = AA, 2 = EA)	-.18*	-.14*		-.12	
Adolescent Factors					
Autonomy Expectations	.03	.11	.01	.20	.03
Legitimacy Beliefs	-.08	-.12		-.05	
Total R^2					.32**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Sex is dummy coded 0 for female and 1 for male. Ethnicity is coded 1 for African American and 2 for European American.

Analogous sets of analyses were conducted for year 2 conflict intensity. After controlling for all conflict in year 1 and conflict frequency in year 2, more intense conflict in year 2 remained associated with more antisocial behaviors (see Table 5, partial *r* column). When each set of predictors was tested separately (see Table 5, each set columns), none of the sets explained significant variance in year 2 conflict intensity and none of the variables remained uniquely associated with year 2 conflict intensity.

When all predictors were included in the same model (see Table 5, all sets columns), none of the sets explained unique variance in year 2 conflict intensity, and none of the variables were uniquely associated with year 2 conflict intensity.

Table 5. *Longitudinal Predictors of Parent-adolescent Conflict intensity (PAC2)*

Predictor Set	Partial <i>r</i>	Each Set Individually		All Sets Simultaneously	
		β	ΔR^2	β	ΔR^2
Control Variables					
PAC frequency	.42***	.35-.38**		.01	
PAC intensity	.04	-.04(-.17)*		.32***	
PAC2 frequency	.17*	.13-.19*		.11	
Child Factors					
Resistance to Control	.03	-.05	.02	-.06	.02
Depressed Mood	.07	.05		.06	
Antisocial behaviors	.15*	.16		.18	
Parent Factors					
Depression	-.04	-.04	.00	-.02	.00
Hostility	.00	.04		.05	
Contextual Factors					
Income	.06	.05	.01	.00	.01
Sex (0 = female, 1 = male)	.01	.01		-.01	
Ethnicity (1 = AA, 2 = EA)	.07	.05		.06	
Adolescent Factors					
Autonomy Expectations	.04	.22	.03	.17	.02
Legitimacy Beliefs	.07	-.16		-.12	
Total R^2					.28**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Sex is dummy coded 0 for female and 1 for male. Ethnicity is coded 1 for African American and 2 for European American.

Discussion

Although many studies have attempted to describe developmental trends in parent-adolescent conflict, few studies have focused on individual differences in conflict. The current study tested variables representing child factors, parent factors, contextual factors, and adolescence-specific factors as correlates and predictors of individual differences in parent-adolescent conflict. Conflict frequency and conflict intensity were predicted separately. Associations were tested both concurrently and longitudinally. Although variables from all four groups of factors were associated with conflict, the three variables representing the child factors (i.e., resistant to control temperament, antisocial behaviors, and child depression) had the most consistent and strongest links with conflict. Associations linking the predictors with conflict intensity were generally more consistent and stronger than associations linking the predictors with conflict frequency. Finally, although there were a number of unique concurrent associations between the predictors and the indices of conflict, very few associations remained significant in longitudinal analyses.

The few previous studies that have attempted to predict individual differences in parent-adolescent conflict have focused primarily on associations linking child temperament, antisocial behavior, and child depression with conflict frequency. More frequent conflict is typically associated with more difficult temperaments, more antisocial behavior, and with higher levels of child depression (Adams & Laursen, 2001; Jaycox & Repetti, 1993; Shek, 1997). Findings from the current study were consistent with previous research. Resistant to control temperament, antisocial behavior, and child depression were each associated with more frequent conflict. The current study extended previous research in several ways. First, in addition to being linked with more frequent conflict, resistant to control temperament, antisocial behavior, and child depression also were associated with more intense conflict. Second, after controlling for conflict intensity the three child factors were no longer significantly associated with conflict frequency. In contrast, after controlling for conflict frequency all three child factors remained significantly associated with conflict intensity. This suggests that the child factors were more associated with conflict intensity than with conflict frequency. Third, associations were tested longitudinally. Antisocial behavior and child depression both predicted rank order increases in conflict frequency and child depression also predicted rank order increases in conflict intensity. In addition to replicating previous studies showing that temperament, antisocial behavior, and child depression are associated with conflict frequency, the current study illustrated that the child factors were better predictors of conflict intensity than conflict frequency. The current study also demonstrated significant longitudinal links between antisocial behavior and both conflict frequency and conflict intensity.

Past studies have also linked parent factors to parent-adolescent conflict. More frequent parent-adolescent conflict has been associated with more parental hostility and higher levels of parent

depression (Allan, Kashani, & Reid, 1998; Sarigiani, Heat, & Camarena, 2003). In contrast to previous research, the current study did not find significant associations between conflict frequency and parental hostility or parent depression. However, the current study expanded previous research by showing that more parental hostility and higher levels of parent depression were associated with more intense conflict. Additionally, parental hostility remained significantly associated with conflict intensity after controlling for conflict frequency. In contrast, parent depression was no longer associated with conflict intensity after controlling for conflict frequency. This suggests that parental hostility was more associated with conflict intensity than conflict frequency. Finally, these associations were tested longitudinally, but neither parent factor predicted conflict.

Previous studies testing links between demographic variables and parent-adolescent conflict have been inconsistent. For example, Silverberg and Steinberg (1987) found that more frequent parent-adolescent conflict was associated with higher incomes, but Hair et al (2008) found that more frequent parent-adolescent conflict was associated with lower incomes. Consistent with Hair and colleagues, in the current study, lower income was associated with more frequent parent-adolescent conflict. Moreover, results expanded previous research by showing that lower income also was associated with more intense parent-adolescent conflict. After controlling for parent-adolescent conflict intensity, income remained significantly associated with conflict frequency, but after controlling for conflict frequency income was no longer associated with conflict intensity suggesting that income had a stronger association with conflict frequency than with conflict intensity. Next the associations were tested longitudinally, no significant predictions were found. In addition to replicating previous findings, the current study expanded on those findings by showing that income was also linked to conflict intensity.

Previous research has shown that African American parents are more likely to use physical punishment with their children than European American parents (Deater-Deckard & Dodge, 1997). At least one study focusing on verbal disputes between parents and teens found that when compared to African American families, European American families reported more frequent parent-adolescent conflict (Barber, 1994). Yet, other studies have reported similar patterns of conflict between African American families and European American families (Grinns, 1999; Dixon, Graber, & Brooks-Gunn, 2008). In the current study, African American teens reported more frequent and more intense conflict than European American teens. When tested longitudinally, African American teens reported larger increases in conflict frequency than European American teens, but not significant increases in conflict intensity. While findings from the current study are in contrast to previous studies looking at differences in conflict between both African American and European American families, the majority of the previous research exploring parent-adolescent conflict has included African American or European American samples alone. Therefore, it may be that there simply has not been enough studies examining ethnic differences in parent-adolescent conflict to compare.

Few previous studies have reported on sex differences in parent-adolescent conflict. Although significant results from past studies have generally found that girls reported more frequent conflict with parents than boys (Allison & Schultz, 2004; Rudolph & Hammen, 1999), multiple other studies have not found any sex differences in conflict. Therefore it was not surprising that the current study did not find any significant differences in conflict related to sex.

Based on results from prior research, it was expected that parent-adolescent conflict would be associated with factors salient during the transition to early adolescence. Although previous studies have linked more frequent parent-adolescent conflict with earlier autonomy expectations

(Phinney, Kim-Jo, Osorio, & Vilhjalmsson, 2005), much of this research has been conducted on European American and Asian American samples. Previous research has also linked more frequent parent-adolescent conflict with weaker legitimacy beliefs (Smetana & Asquith, 1994). Findings from the current study were in contrast to previous research. More frequent parent-adolescent conflict was associated with later autonomy expectations (i.e. expecting autonomy at a later age), but more frequent conflict was not associated with legitimacy beliefs. Expanding on previous research, in the current study, weaker legitimacy beliefs were linked with more intense conflict. After controlling for conflict intensity, later autonomy expectations remained significantly associated with conflict frequency and after controlling for conflict frequency, weaker legitimacy beliefs remained associated with conflict intensity. One explanation for the association between more frequent conflict and later autonomy expectations could have to do with cultural dynamics. Researchers have found that African American families enforce a stricter home environment for their teens, which could include enforcing later autonomy expectations (Patterson, DeBaryshe, & Ramsey, 1989). Although associations between the adolescence-specific factors and conflict were tested longitudinally, significant effects were not found.

Previous research on parent-adolescent conflict has primarily combined conflict frequency and conflict intensity into a single score. To a lesser extent, some studies have focused on conflict frequency alone. Even fewer studies have focused on conflict intensity at all. The current study expanded previous research by testing conflict frequency and conflict intensity as separate factors. In contrast to previous research, the current study found that conflict intensity was stronger and more consistently associated with the child, parent, contextual, and adolescence-specific groups of factors. This suggests that during early adolescence conflict intensity is at

least as significant as conflict frequency and future research should continue to separate these factors.

Researching parent-adolescent conflict during early adolescence can be considered important for a number of reasons. Early adolescence is characterized by multiple physical, emotional, and intellectual changes associated with puberty. Although early adolescence is marked by the onset of puberty, previous research has found that age is better associated with conflict frequency and conflict intensity. Some researchers have argued that because of the ongoing changes that occur during early adolescence there is also a peak in parent-adolescent conflict. Others have argued that increases in conflict with parents during early adolescence occur because conflict is crucial for adolescent development suggesting that conflict encourages the adolescent to develop better thinking strategies. Therefore, early adolescence could be a period of time that includes a lot of individual variability. For the purpose of the current study, examining early adolescence as opposed to middle or late adolescence was critical for understanding what, if any of the predictors influenced individual differences in parent-adolescent conflict. Results from the current study showed that the child factors had the most consistent influence on parent-adolescent conflict both concurrently and longitudinally.

Strengths & Limitations

The current study advances research on links between parent-adolescent conflict and predictors in several ways. First, conflict frequency and conflict intensity were examined separately. Results showed that the stronger correlate with predictors was conflict intensity rather than conflict frequency. Second, the current study used a multivariate approach to test predictors of parent-adolescent conflict. Examining several predictors at once allowed us to find that when compared against other groups of factors, the child factors were the most significant group.

Third, the present study examined both cross-sectional and longitudinal data. The majority of previous research on parent-adolescent conflict has been cross-sectional and this study provided a look into predictors of parent-adolescent conflict within the same families at two different points in time.

Some limitations of the current study should also be kept in mind. First, as is common in survey research, parent and adolescent self-reports were used. It is possible that some of the significant associations found between predictors were due to informant effects, however, previous research has found that child reports are an important source of information especially in regards to their own behaviors (Achenbach, 1995). Second, although only using adolescent reports of conflict cannot provide a completely accurate depiction of what occurs in a family, research has shown that adolescent reports of conflict with their parents are more consistent with observational data than is parent reports of conflict (Allison & Schultz, 2004; Gonzales, Cauce, & Mason, 1996). Third, Cronbach's alpha for the parental hostility scale and the legitimacy beliefs scale were .38 and .47 respectively, which is lower than in previous studies finding good internal consistency ranging from .64 to .78 for the hostility scale and .74 to .91 for the legitimacy beliefs scale (Biaggio, et al., 1981; Smetana, 1995, 2000). However, previous research utilizing these scales has primarily been conducted with European American samples and it is possible that such cultural differences may have influenced the internal consistency of these scales. Finally, one last limitation is participant retention. While studies such as this may be prone to participant drop out, it is possible that the families that did not participate at the second time point had more problems within their family and did not want to reveal that information.

In conclusion, the current study attempted to examine factors related to individual differences in parent-adolescent conflict. Four groups of factors were tested as concurrent correlates and

longitudinal predictors of parent-adolescent conflict during the transition to early adolescence. Conflict intensity as opposed to conflict frequency emerged as more consistently related to the predictors, and the group of child factors were the strongest correlates of parent-adolescent conflict. Lastly, although the child factors were the strongest predictors of individual differences in parent-adolescent conflict only a small amount of associations were significant longitudinally.

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Appendix

Figure 1. *Belsky (1984) Process Model of Parenting*

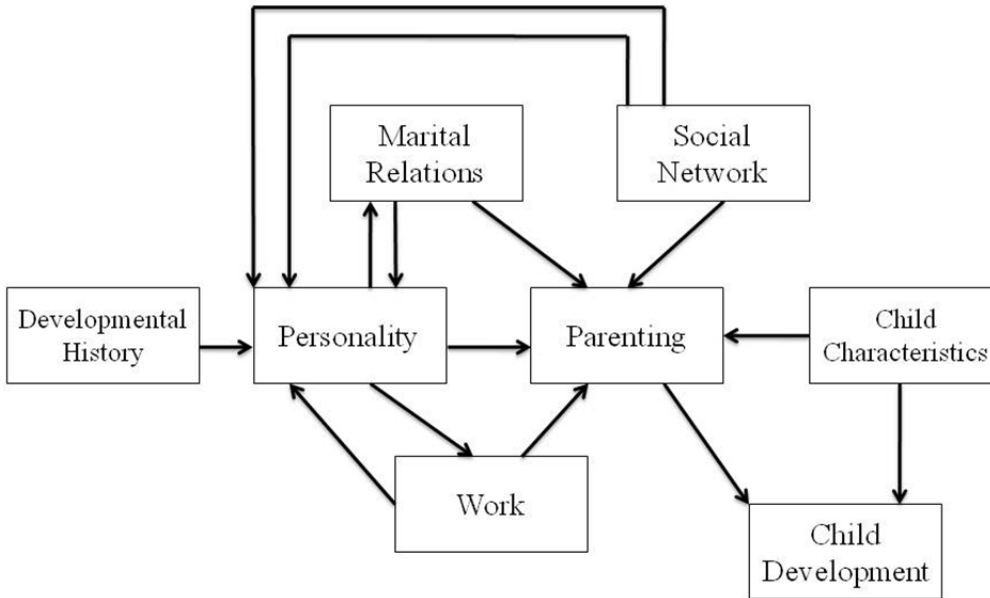
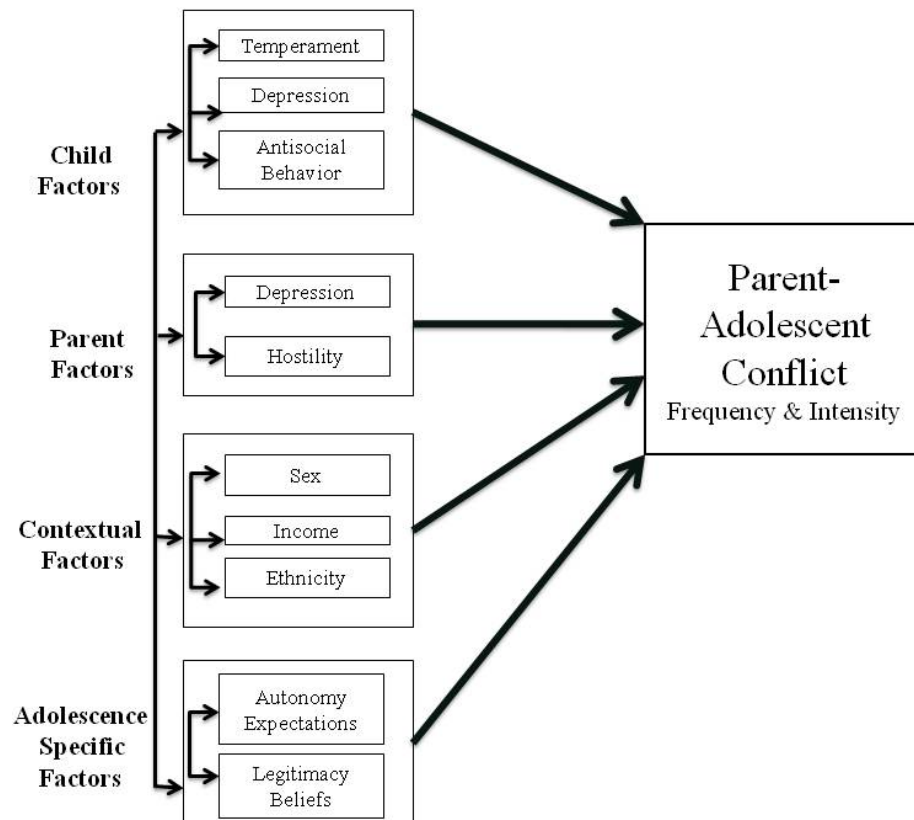


Figure 2. *Current Model Predicting Parent-Adolescent Conflict*



VITA

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