

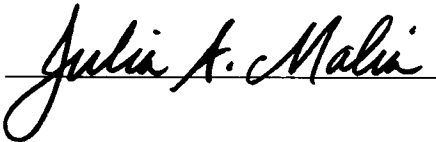
To the Graduate Council:

I am submitting herewith a thesis written by Sharon Pemberton Tittsworth entitled "Overt Conflict Style and Youth Academic Achievement: The Function of Important Linking Mechanisms." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Child and Family Studies.



Cheryl Buehler, Major Professor

We have read this thesis
and recommend its acceptance:



Accepted for the Council:



Associate Vice Chancellor and
Dean of the Graduate School

OVERT CONFLICT STYLE AND
YOUTH ACADEMIC ACHIEVEMENT:
THE FUNCTION OF IMPORTANT LINKING MECHANISMS

A Thesis

Presented for the

Master of Science

Degree

The University of Tennessee, Knoxville

Sharon Tittsworth

May 1996

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ACKNOWLEDGMENTS

I would like to extend my sincere thanks and appreciation to Dr. Cheryl Buehler for her guidance and support throughout this thesis process. Dr. Buehler's encouragement, patience and dedication to excellence was an inspiration to my completion of a life-long goal.

I would also like to thank the other members of my thesis committee, Dr. Julia Malia, and Dr. Delores Smith for their constructive suggestions and careful review of my thesis. Fellow graduate students, Christine Anthony, Ambika Krishnakumar, Jeannie Gerard, and Gaye Stone provided invaluable suggestions for my project during discussions on parental conflict and youth's academic achievement. I am indebted to Angela Barnes for her editorial and technical expertise. Her assistance contributed to the completion of this thesis more than she will ever realize.

I would also like to express my appreciation to Karns Middle School, the principal, teachers, students, and their parents for participation in this study. Without their willingness to become involved this research project could not have happened.

Finally, I would like to thank my parents, my two sons, Eric and Brent, and their father for their patience and encouragement throughout this long process. Without my family's love and support I would never have completed this project.

ABSTRACT

The role of an overt conflict style and linking mechanisms that may mediate the relationship between an overt interparental conflict style (controlling for interparental conflict - disagreements) and youth academic achievement were examined. The sample included 285 youth in sixth- through eighth-grade transitioning from elementary to middle school. Overt conflict style was measured by frequency of the conflict style. Linking mechanisms measured were: parental monitoring, parental harsh discipline, parental emphasis on achievement, and youth's inability to concentrate. Overt conflict style and interparental conflict emerged as separate constructs. Parental harsh discipline and youth's inability to concentrate emerged as separate constructs. Parental monitoring and parental emphasis on achievement split loaded forming a parental involvement construct. The findings did not support the model. Using mother's report of academic achievement and combined youth/teacher report of academic achievement, the linking mechanisms did not mediate the relationship between an overt conflict style and youth's academic achievement. Youth/teacher report and mother report of academic achievement was associated with parental involvement and youth's inability to concentrate. The results supported that interparental conflict-disagreements had a direct effect on youths' academic achievement.

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I. Introduction and Literature Review

One of the consistent correlates of academic achievement for youth in middle school through high school is the frequency of conflict that occurs between their parents. Research suggests that this is an inverse linear relationship of low to moderate strength. (See as examples, Amato & Keith, 1991; Forehand, McCombs, Long, Brody & Fauber, 1988; Forehand, Wierson, McCombs, Brody & Fauber, 1989; Grych & Fincham, 1990; Long, Forehand, Fauber & Brody, 1987; Long, Slater, Forehand & Fauber, 1988; Neighbors, Forehand & Armistead, 1992; Wierson, Forehand & McCombs, 1988). This study conceptualized academic achievement as the ability to demonstrate a mental aptitude that yields acceptable levels of performance in school work (i.e., grades). Although academic achievement is only one area of youth functioning, the literature suggests it is an important one (Wentzel, 1994) and that potentially it is influenced by hostile interparental conflict (Long et al., 1988). Interparental conflict has been associated with general youth adjustment whether the conflict occurred in an intact marriage, before a divorce, or after a divorce (Emery, 1982). Research suggests that academic achievement is one of the areas most sensitive to family stress and, therefore, is a valid barometer of general adjustment for many youths (Neighbors et al., 1992).

Although research suggests a relationship between interparental conflict and youth academic achievement, this literature has three major limitations. The first has been an inadequate conceptualization of interparental conflict. Initial research supported a relationship between youth functioning and overall marital discord or divorce (Fincham,

1994). Marital conflict was later identified as the aspect of marital discord or divorce related to youth adjustment. Current research has identified overt interparental conflict to which youth are exposed as most relevant for understanding youth adjustment (e.g., academic achievement) (Fincham, 1994).

This literature's second limitation has been a heavy and almost exclusive emphasis on family structure (i.e., intact vs. divorced) in measuring the relationship between interparental conflict and youth academic achievement (Camara & Resnick, 1988). Past research has examined ratings of family conflict separately for intact and divorced families (Faubert, Forehand, Thomas & Wiersen, 1990; Forehand et al., 1988; Forehand et al., 1989). Research suggests that youth in high-conflict intact families are considerably worse off than children in low-conflict intact families but also exhibit lower levels of academic achievement than youths in low-conflict divorced families (Amato et al., 1991). Thus, it appears to be the process involved when interparental conflict occurs in family functioning, rather than the family structure alone, that is important when studying interparental conflict and youth's academic achievement.

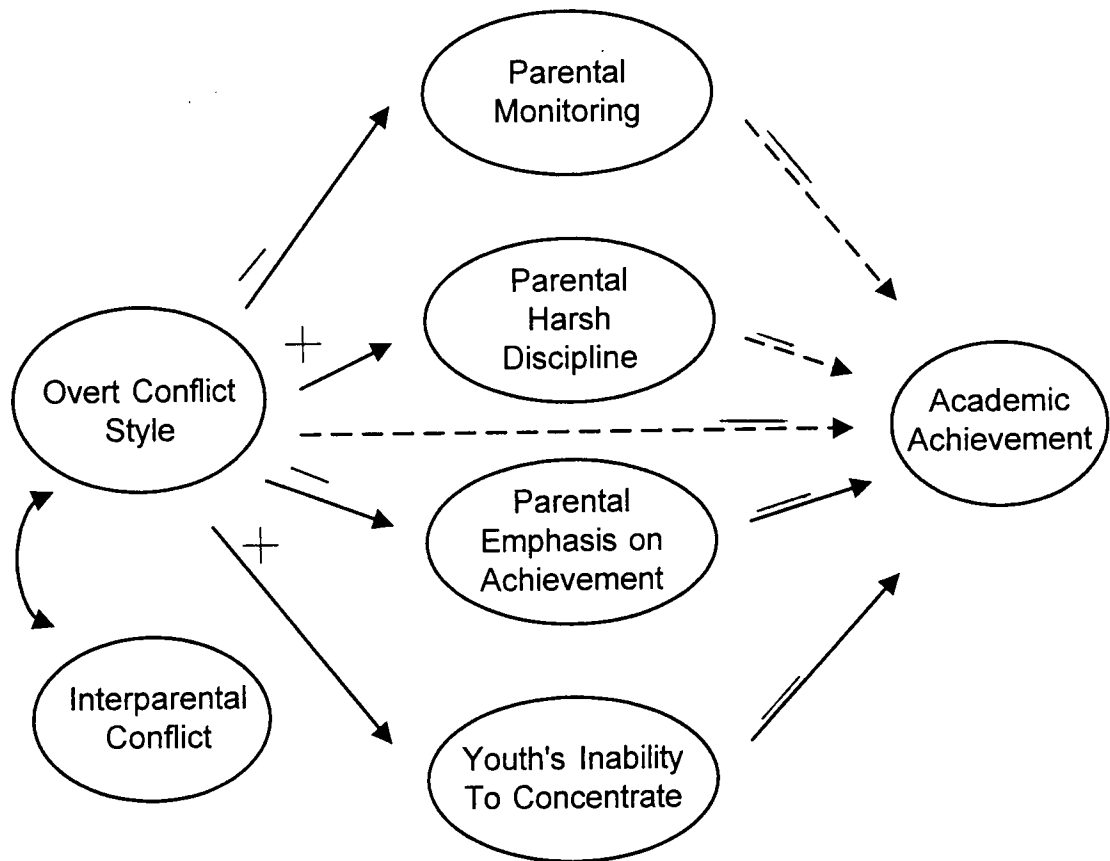
Lastly, the literature has been compromised because inadequate attention has been given to the important linking mechanisms between an overt interparental conflict style and youth academic achievement. Although numerous studies have documented the impact of exposure to interparental conflict on youth adjustment, the mechanisms that link interparental conflict to youth adjustment have been ignored empirically, and these processes provide promising avenues for research (Fincham, Grych & Osborne, 1994). The present study was designed to examine several possible linking mechanisms that may mediate the

relationship between an overt interparental conflict style and youth academic achievement: parental monitoring, harsh discipline, parental emphasis on achievement, and youth's inability to concentrate (see Figure 1).

Interparental Conflict Style

One of the major limitations in the literature has been the inadequate conceptualization of interparental conflict. The term interparental conflict is broad and has been used in diverse ways by various researchers. Past research has almost uniformly conceptualized marital quality in terms of relationship satisfaction rather than marital conflict (Crockenberg & Covey, 1991). Although this approach generated important new findings, the simple unidimensional focus on marital satisfaction failed to identify the specific dimension of marital quality correlated with or predictive of various aspects of youth adjustment (Cowan & Cowan, 1990; Esterbrooks, 1987; Howes & Markman, 1989). More recent research recognized interparental conflict as a multidimensional construct, but focused mainly on frequency of conflict. However, these studies did not distinguished between the frequency of interparental conflict (e.g., disagreements) and conflict management styles used to govern conflict, an important distinction empirically and in practice (Cummings, Davies & Simpson, 1994).

A strength of the present study was its attention to the distinction between interparental conflict and a conflict management style as it related to youth adjustment (specifically, academic achievement). Accordingly, interparental conflict is defined as disagreements between parents about various issues in family life (Buehler, Krishnakumar, Anthony, Tittsworth & Stone, 1994). Conceptually, there are five conflict management



**Model of
Overt Conflict Style and
Youth Academic Achievement:
The Function of Important Linking Mechanisms**

Figure 1

styles: overt strategies (verbal and physical), covert strategies, cooperative strategies, avoidant strategies, and withdrawal strategies (Ahrons, 1981; Buehler, Anthony, Stone, Krishnakumar & Tittsworth, 1995; Camara et al., 1988). This project focused on an overt conflict strategy as related to youth academic achievement. Overt conflict style was selected as the focus strategy for this study because research in this area is limited and the effects of overt conflict on youth academic achievement may be important (Amato et al., 1991; Long et al., 1987). Although each conflict management style warrants further examination, such examinations were beyond the scope of this study.

Overt conflict style is defined as behaviors and affect that indicate direct manifestations of negative connections between parents. Identifying behaviors include yelling, screaming, slapping, and hitting. Predominant emotions include anger, belligerence, contempt, and/or derision. By definition, overt behaviors between parents include verbal and/or physical hostility (Buehler et al., 1995).

A review of the literature revealed that past research had not considered the independent effects of interparental conflict (e.g., frequency of disagreements) and the use of an overt hostile conflict style on youth academic achievement. Thus, one purpose of this study was to examine the association between an overt interparental conflict style and youth academic achievement, controlling for frequency of disagreements. It was hypothesized that use of an overt conflict style would be a stronger predictor of academic achievement than frequency of disagreements between parents.

Process and Structural Considerations

Research examining interparental conflict and youth adjustment has been compromised by a heavy, and almost exclusive, emphasis on family structure. Past studies have examined the relationship between interparental conflict and academic achievement separately for intact families and divorced families (Forehand et al., 1988; Long et al., 1987; Long et al., 1988). Although this approach generated important new findings, it failed to conceptualize interparental conflict as an important family process regardless of marital structure.

If youth who are exposed to high levels of marital discord experience lowered academic achievement, it would follow that academic achievement would improve after the marital relationship ended. Research suggests that youths' academic achievement may improve with a change in parents' marital status (Amato et al., 1991). However, research suggests that it is the youths' decreased exposure to hostile interparental conflict after the parents' marital change, not the marital status alone, which may have a positive influence on academic achievement. Camara and Resnick (1988) found that family structure (divorced vs. intact) was significantly associated with five outcomes. Yet, when measures of conflict and parents' conflict style were entered into regression equations, parent's marital status was no longer significantly associated with any outcome.

In a recent study that examined the effects of parental divorce and interparental conflict on adolescent functioning (i.e., measured by externalizing, internalizing, academics, and social competence) across four years, conflict between divorced parents continued to be important to adolescent functioning (i.e., academics) up to three years after the marriage

ended (Forehand, Neighbors, Devine & Armistead, 1994). This study provides further support that exposure to the process of interparental conflict, not parents' marital structure *per se*, places youth at risk.

Linking Mechanisms

Several researchers have suggested that the relationship between frequency of interparental conflict and youth academic achievement may be mediated by parenting practices (Bray & Hetherington, 1993; Emery, 1982; Gable, Belsky & Crnic, 1992; Grych & Fincham, 1990; Patterson, DeBaryshe & Ramsey, 1989). Overt interactions between parents are absorbing, diverting, and debilitating and consequently may result in a deterioration in parenting (Buehler et al., 1994). When parents are preoccupied with their own problems, they may be more inconsistent in enforcing limits, less attentive in knowing the whereabouts of their children, and more likely to make coercive demands (Crockenberg et al., 1991).

This study has forwarded the literature by focusing on an overt conflict style used to manage disagreements, rather than the mere frequency of disagreements. Empirically, an overt conflict style has been associated negatively with parental monitoring behaviors and positively with parental harsh discipline (Burman, John, & Margolin, 1987; Conger, Conger, Elder, Lorenz, Simons & Whitbeck, 1993; Fauber et al., 1990; Walsh & Stolberg, 1989). In turn, parental monitoring has been associated with higher grades in school (Steinberg, Lamborn, Dornbusch & Darling, 1992), and parental harsh discipline has been associated with academic problems (Barber & Shagle, 1992; Barnes & Farrell, 1992; DeBaryshe,

Patterson & Capaldi, 1993; Fauber et al., 1990; Lamborn, Mounts, Steinberg & Dornbusch, 1991).

Monitoring. Parental monitoring was conceptualized as the extent to which parents know where their youth is, whom the youth is with, and what the youth is doing. These parental practices indicate child-centeredness or concern by the youth's parent (Steinberg et al., 1992). Parents involved in conflict who employ an overt conflict style may be preoccupied or consumed with this conflict and exert less supervision, weaker controls, and make fewer demands on their youth.

No direct empirical evidence exists to support the mediating role of parental monitoring in the association between an overt conflict style and academic achievement. However, in terms of tangential evidence, Cowan et al. (1990) found that a lack of monitoring was associated with marital conflict, indicating that parents experiencing high levels of marital conflict may be too preoccupied with their own problems to effectively structure and monitor their youth's behavior. In turn, higher levels of parental monitoring were related to higher levels of academic achievement, for both boys and girls (Paulson, 1994). Dropping out of school and other indicators of poor school performance also have been linked to low parental monitoring of youths' activities (Downey, 1994).

Harsh discipline. For the purpose of this study, harsh discipline was conceptualized as a compliance-gaining strategy by the parent to enforce rules and directives (Baumrind, 1968). Harsh discipline is employed in a critical, negative, hostile manner that includes the use of verbal or physical punishment. These parental practices may be used in an attempt to oversee the youth's behavior by taking away privileges (in a harsh, critical negative

manner), yelling, threatening, or spanking. Parents who use an overt hostile conflict style between themselves may become unable to project rational judgment when dealing with their youth's behavior and apply unjust or harsh discipline.

Research suggests 84% of all Americans regard hitting children as "sometimes necessary" and harmless provided it does not cross the line to physical abuse (Straus, 1971). Straus and Kantor (1994) reported that 79.5% of parents administer corporal punishment to their 13-15 year old adolescents more than once during a one-year period. Straus (1971) reported that, of adults asked to recall having been corporally punished one or more times during their teen years, 50% adults recalled being corporally punished (physically hit) one or more times during those years. This literature supports the number of respondents who reported having been corporally punished during their teen years is not a small and highly deviant subset of teenagers. They are at least half of all American youth and therefore represent the modal situation (Straus et al., 1994). Steinberg, Lamborn, Darling, Mounts, and Dornbusch (1994) found that adolescents from authoritarian homes scored reasonably well on measures of academic achievement. However, they did not score as well as youths from authoritative homes. In terms of empirics, Simons, Johnson, and Conger (1994) found that consequences of parental support and involvement, not persistent corporal punishment, predicted negative adolescent outcomes. It would appear from their findings that it is not punishment per se, but the hostile, critical parental affect accompanying such punishment that increases a youth's risk for negative outcomes.

I was unable to find an extant study that has tested the mediating role of harsh discipline in the association between an overt conflict style and academic achievement.

However, past research has indicated an association between overt interparental conflict and harsh discipline (Dadds, Sheffield & Holbeck, 1990; Floyd & Zmich, 1991; Jouriles & LeCopte, 1991; Trickett & Kuczynski, 1986). Similarly, a link between harsh discipline and academic achievement has been established (Bank, Forgatch, Patterson & Fetrow, 1993; Steinberg et al., 1994). Thus, there is indirect support for the hypothesis that harsh discipline may mediate the association between an overt hostile conflict style and youth academics.

Parental emphasis on achievement. For the purpose of this study, parental emphasis on achievement was conceptualized as the extent parents support their youth by attending school programs and activities. Parents know how their youth is doing in school, exhibit a willingness to assist with homework, and know how well the youth is performing in each school subject. These behaviors indicate child-centeredness and constructive parental concern. Parents involved in conflict who engage in an overt conflict style may turn inward, withdrawing emotionally from their environment and children. Parents may become self-absorbed with their own feelings and pain. This apathy may make them unwilling or unable to attend school functions or focus on their youth's academic needs. The youth, in turn, may feel the parents have lost interest and be reluctant to ask for help, placing the youth at greater risk for lower school achievement.

The mediating role of parental emphasis on achievement in the association between an overt hostile conflict style and academic achievement has not been studied previously. However, tangential evidence suggests that interparental disagreement is negatively associated with parental emphasis on achievement (McCombs, Long & Fauber, 1988; Fisher

& Fagot, 1993). In turn, parental emphasis on achievement seems to inspire higher academic performance (Brown, Mounts, Lamborn & Steinberg, 1993; Paulson, 1994; Wentzel, 1994). Parental participation in a Parent Teacher Organization (PTO) and other school-based involvement has been associated strongly with youths' grades (Muller, 1995). As evidenced in current research, good parenting is expected to precede and to influence competent youth behavior. In considering both parental monitoring and parental harsh discipline, parental emphasis on achievement predicts achievement above and beyond that predicted by monitoring and harsh discipline practices (Paulson, 1994). This research suggests that parents' involvement in their adolescents' achievement may be more important than monitoring or discipline alone. Thus, it was hypothesized that parental emphasis on achievement is more strongly associated with academic achievement than the parenting practices of monitoring or harsh discipline.

Youth's inability to concentrate. Inability to concentrate was conceptualized as the extent to which a youth is incapable of sustained focus on ideas, thoughts, or problem solving strategies for a sufficient time period necessary to accomplish certain tasks. As ongoing observers of family interactions, youths are highly attuned and sensitive to manifestations of hostility between their parents (Wentzel, 1994). As pointed out by Kanner, Feldman, Weinberger, and Ford (1987) early adolescents rate parental fighting as one of the most formidable negative daily life events. Therefore, it is likely that this negative stressor can influence a youth's academic achievement as well. Youth exposed to parents involved in conflict who employ an overt conflict style may have trouble concentrating or paying attention. Youth may attempt to escape emotionally by daydreaming or getting lost

in their own thoughts. They may have difficulty following directions or fail to carry out assigned tasks. In the most desperate situations, they may attempt to escape physically by running away from home.

No direct empirical evidence exists to support the mediating role of youths' inability to concentrate in the association between an overt conflict style and academic achievement. In terms of tangential evidence, Wentzel (1994) states that, at a general level, emotional distress has been linked consistently to disengagement from goal pursuit and task demands. Consequently, youth with high levels of distress may be at risk for academic failure due to general withdrawal from schoolwork and classroom activities (Wentzel, Weinberger, Ford & Feldman, 1990). Therefore, it was hypothesized that youth's inability to concentrate would mediate the association between an overt conflict style and youth academic achievement. Youth exposed to overt conflict between their parents are at risk for academic achievement problems, and these two variables are linked by the youth having a hard time concentrating on their school work.

In conclusion, the central function of this project was to study how an overt interparental conflict style affects youth academic achievement. The function of important linking mechanisms in understanding the association between an overt conflict style and youth academic achievement was a major focus. The identification of all predominant predictors of academic failure was beyond the domain of this model. Rather, this study has strived to identify some of the circumstances under which the relationship between an overt conflict style between parents and youth academic achievement may be affected.

Hypotheses. The following introductory hypotheses were formulated based on available theoretical and empirical evidence.

1. An overt conflict style would be related negatively to youth academic achievement (in a zero-order relationship). This direct association would be stronger statistically than the association between frequency of interparental conflict and academic achievement.

2. Parental monitoring would partially mediate the association between an overt conflict style and academic achievement.

3. Parental harsh discipline would partially mediate the association between an overt conflict style and academic achievement.

4. Parental emphasis on achievement would partially mediate the association between an overt conflict style and academic achievement. High levels of parental emphasis on achievement would predict academic achievement above and beyond that predicted by either monitoring or harsh discipline.

5. Youth's inability to concentrate would serve as a partial mediator between an overt conflict style and academic achievement. High levels of a youth's inability to concentrate would predict academic achievement above and beyond that predicted by either monitoring or harsh discipline.

The study has forwarded the existing literature in at least four ways: First, although researchers have suggested a relationship between interparental conflict and youth academic achievement, interparental conflict has been inadequately conceptualized. This study

distinguished between interparental conflict (disagreements) and conflict management style as it relates to academic achievement.

Second, past research has been limited by a misplaced emphasis on family structure in measuring the relationship between interparental conflict and youth academic achievement. This study forwarded the literature by examining interparental conflict and its influence on academic achievement as a familial process regardless of family structure.

Third, researchers and theorists have examined interparental conflict and its relationship to academic achievement and specific linking mechanisms and their relationship to academics. However, there is no empirical evidence relating overt conflict styles through important linking mechanisms to adolescent academic achievement, and there is reason to believe that a overt conflict style would be a more powerful predictor than frequency of interparental conflict. This study examined those mediational pathways.

Fourth, the transition from elementary to junior high school is a significant event in young adolescents' lives and is a time when parenting and adolescent functioning is believed to significantly influence academic achievement (Muller, 1995; Roberts & Petersen, 1992; Wentzel, 1994). However, research involving parenting, adolescent functioning, and school linkage during adolescence is scant (Wentzel, 1994). This study forwarded the literature by focusing on sixth- through eighth-grade adolescents and their academic experience during middle school.

II. Methods

Subjects

The sample participants used to test the proposed model were part of a larger, more comprehensive project designed to assess family life, with an emphasis on interparental conflict in families. A community sample was drawn. Youth with nondivorced parents or divorced with mother custody were included in the study. The target child had to be a product of the current marriage for inclusion in this study. The research design was cross-sectional and included data from youth, mothers, and teachers. Considerable efforts, within the limits of human subjects allowance, were used to encourage a high rate of parental consent for participation in this study to help reduce selection bias.

Subjects included sixth through eighth grade students, their mothers, and homeroom teachers in a Knox County, Tennessee, middle school. The response rate for participants was 80%, resulting in a sample size of 285 youth, 156 girls and 129 boys (ages 10 to 15; Mean = 12.6; SD = .92). Data for youth and teachers were collected in fall of 1994. Mother data was collected in spring and summer of 1995. Mothers were mailed questionnaires and asked to return the completed form by mail. These procedures resulted in a 59% mother participation rate, sample size 161.

The sample was predominantly white (98% European-American) and from varying socioeconomic backgrounds. Youth reported the average level of formal education attained by mothers and fathers to be between "completed trade or business school" and "completed some college." Youth reported 86% married parents. Youth reported that 22% of their mothers were employed outside the home, 22% were employed part-time, and 56%

employed full-time. Mothers' report of formal education corresponded with youths', ranging from no formal education to graduate work. The mean and median income categories for range of income, was \$35,000 to 49,999.

Procedures

Approval was obtained to conduct the study from the University of Tennessee Human Subjects Committee, the Knox County Schools, the school principal and teachers. Classrooms were selected based on teacher willingness to participate in the study. Letters requesting parental consent were sent home with children from each participating classroom. When students returned the letter to school, each was given a small token of appreciation, whether or not parental permission was given to participate in the project. This procedure was important to help obtain a high return rate and help reduce potential sampling bias. The youth questionnaires were administered in the school's cafeteria by trained researchers on four different days -- one day for each grade level participating and one additional time for those students absent during the three administrations. Following completion of each day's questionnaires, students were treated to a pizza party.

Participating teachers completed their questionnaires during their own time. Teachers were paid \$3 and given a small token of appreciation for each questionnaire they completed. Teacher data were received for all 285 youth. When possible, parental questionnaires, along with a UT Bicentennial pin as a small token of appreciation, were mailed to both parents of each student participating in the study. Postage-paid envelopes were furnished to each parent for questionnaire return. Three follow-up contacts were made with each mother whose questionnaire was not received.

Measures

Before administering the questionnaire to the students in this project, a pilot test was conducted with 15 fifth-grade youth in another Knox County School to ensure clarity and age-appropriate readability. The questionnaire was revised accordingly (see Appendix B for a complete listing of all measures).

Overt Conflict Style was measured by youth response to five items developed for this study. Respondents reported how often the parents engaged in certain behaviors during disagreements. Examples of these behaviors were: call each other names, tell each other to shut up, and threaten one another. A four-point response scale ranging from never (1) to very often (4) was used for youth response.

Frequency of interparental conflict was measured by youth response to twelve items adapted from Ahrons (1983). Frequency of parental conflict was measured using seven items measuring parental youth-related issues and five items measuring nonparental (not youth-related) issues. Items from the youth questionnaire asked such things as how often parents disagree about "your (or one of your siblings) dress or grooming" (parental conflict) and "your mom's duties in the family" (nonparental). The frequency response scales were the same as those used to measure overt conflict style.

Parental Monitoring was measured by youth response to five items adapted from Brown et al. (1993). The five items asked the youth's response on monitoring practices. Sample items included: "How much do your parents really know about... who your friends are, how you spend your money, and what you do with your free time?" A three-point response scale ranging from doesn't know (1) to know a lot (3) was used.

Parental Harsh Discipline was assessed by youth response to four items adapted from the Weinberger Parenting Inventory (WPI) (1989). Youth responded to four items for mother and four items for father. A sample youth item was "My mother is a person who is very strict with me." A three-point response scale was used ranging from not like her (1) to a lot like her (3). A sample youth item for father was "My father is a person who gives hard punishment." An identical response scale was used for father.

Parental Emphasis on Achievement was assessed by youth response to three items measuring parental involvement with achievement. Examples of the youth items included "how often do your parents... help you with homework when asked and watch you in sports or activities?" A four-point response scale was utilized ranging from never (1) to very often (4). These items were developed by Brown et al. (1993).

Youth's Inability to Concentrate was measured using youth report. Each participant completed the appropriate items on the Child Behavior Checklist (CBCL-Achenbach, 1991). The youth completed seven items measuring their inability to concentrate. Sample items include: "I have trouble concentrating or paying attention, I day-dream a lot, I feel confused or in a fog, I am nervous and tense, and I act too young for my age." A three-point response scale is utilized ranging from not true (0) to very true or often true (2).

Academic Achievement was measured using teacher, mother, and youth report. Each participant completed the appropriate form on the Child Behavior Checklist (CBCL-Achenbach, 1991). Sample items from the performance in academic subjects subscale are: "English or Language Arts, History or Social Studies, Arithmetic or Math and Science,"

(youth report). Response choices were: failing, below average, average, and above average. This instrument has substantial evidence of adequate reliability and validity (Achenbach, 1991). Academic achievement also was measured by one item adapted from Barber (1994). Youth were asked "What grades do you receive in school?" A nine-item response format ranged from (A) Mostly As to (I) Mostly Fs was used.

Factor analysis

The appraisal characteristics of the different measures were assessed using factor analysis, alpha coefficients, and zero-order correlations. Factor analysis was used to assess construct differentiation (i.e., discriminant validity). Alpha coefficients provided information on the inter-item consistency of the different measures of the constructs. Zero-order correlations assessed the associations among all items (variables) in the model.

Buehler et al. (1995) factored analyzed youth reports of overt conflict style and interparental disagreement to assess discriminant validity. That analysis was repeated for youth reports of overt conflict and interparental disagreements for this study. Factor analysis also was conducted on all youth reports of the appraisal characteristics presented in this study as linking mechanisms (mediators), and for youth, mother, and teacher reports of academic achievement.

Youth reports of all conflict variables were factor analyzed using maximum likelihood extraction with an oblique rotation. The measurement theory was supported for youth reports. Youth reports of interparental conflict items loaded on two distinct factors that clearly represent overt conflict style and frequency of interparental conflict

(disagreements). Cronbach's alphas for these scales were .88 and .87, respectively (see Table 1).

Youth reports of all mediating variables were factor analyzed using maximum likelihood extraction with an oblique rotation. The measurement theory was supported for father's harsh discipline, mother's harsh discipline and youth's inability to concentrate. Cronbach's alphas for these scales were .79, .62, and .75 respectively. The monitoring items and parental emphasis on achievement items split loaded together. Consequently, although youth distinguished between father's harsh discipline, mother's harsh discipline and their own inability to concentrate, they did not distinguish between parental monitoring and parental emphasis on achievement. Thus, those items were combined and a parental involvement measure was formed. Cronbach's alpha for this scale was .79 (see Table 2 and 3).

Youth report, mother report, and teacher report of academic achievement were factor analyzed and z-scores were utilized to standardize all measures. Two separate measures of academic achievement emerged. The results from paired t-tests supported combining the standardized teacher and youth measures. Mother's report of academic achievement emerged as a separate measure (see Table 4).

Table 1

Maximum Likelihood Factor Analysis of Youth Reports of Conflict Items

Questionnaire Item	Overt Conflict	Frequency of
	Style	Disagreement
insult (show disrespect for) each other	-.87	.29
call each other names	-.81	.30
tell each other to shut up	-.79	.29
yell at each other	-.68	.37
threaten each other	-.60	.20
your mom's duties in the family	-.26	.68
your (or one of your siblings) dress or grooming	-.23	.68
your dad's duties in the family	-.28	.67
your mom's job	-.33	.66
your dad's job	-.30	.68
your (or one of your siblings) attending school or church functions	-.18	.68
your (or one of your siblings) physical care	-.21	.63
your (or one of your siblings) behavior in public or at school	-.05	.62
money you (or one of your siblings) need	-.29	.58
your (or one of your siblings) behavior at home	-.17	.58
money in general	-.37	.57
disciplining you (or one of your siblings)	-.19	.44

Note. N = 285. Response format for each item was "never" (1), "once in a while" (2), "fairly often" (3), and "very often" (4). Oblimin rotation (i.e., oblique) was used.

Data analysis

Hierarchical multiple regression was used to examine Hypothesis #1. The control variables of youths' sex, age, and parents' marital status were entered in block 1, the control variable frequency of interparental conflict was entered in block 2, and the overt conflict style was entered in block 3.

Hypotheses #2-#5 examined the function of important linking mechanisms in mediating the relationship between an overt conflict style and youth academic achievement. Applying Hierarchical regression, the control variables were entered in blocks 1 and 2, the overt conflict style was entered in block 3, and each linking mechanism variable (i.e., parental involvement, father's harsh discipline or mother's harsh discipline, and youth's inability to concentrate) in block 4. A significant mediator effect would be indicated by a statistically significant change in E from block 3 to block 4.

Table 2

Maximum Likelihood Factor Analysis of Youth Reports of Mediating Items - Fathers

Questionnaire Items	Harsh Discipline	Parental Involvement	Youth's Inability To Concentrate
My father is a person who...			
Gives hard punishment.	.90	-.32	.39
Is very strict with me.	.68	-.20	.24
Punishes so hard I will remember for a long time.	.63	-.08	.23
Spanks me so I will learn respect for my elders.	.41	-.16	.28
How much do your parents really know about...			
Where you go at night?	-.14	.64	-.21
How you spend your money?	-.13	.63	-.24
Where you are most afternoons after school?	-.13	.60	-.20
What you do with your free time?	-.19	.58	-.27
How often do your parents...			
Watch you in sports or activities?	-.17	.56	-.34
Help you with your homework when asked?	-.13	.52	-.25
Know how you are doing in school?	-.11	.52	-.25
How much do your parents really know about...			
Who your friends are?	-.14	.47	-.21
I act without stopping to think.	.26	-.28	.70
I have trouble concentrating or paying attention.	.27	-.25	.59
I feel confused or in a fog.	.20	-.32	.54
I am nervous or tense.	.26	-.14	.53
I daydream a lot.	.13	-.25	.50
I am poorly coordinated or clumsy.	.28	-.15	.47
I have trouble sitting still.	.16	-.25	.43

Note. N = 285. Response format for harsh discipline items was "not like him" (1), "somewhat like him" (2), and "a lot like him" (3). Response format for parental involvement items "How much do your parents really know about" was "doesn't know" (1), "knows a little" (2) and "knows a lot" (3). Response format for "How often do your parents" items was "never" (1), "once in a while" (2), "fairly often" (3), and "very often" (4). Response format for youth inability to concentrate items was "not true" (0), "somewhat or sometimes true" (1), and "very true or often true" (2). Oblimin rotation (i.e., oblique) was used.

Table 3

Maximum Likelihood Factor Analysis of Youth Reports of Mediating Items - Mothers

Questionnaire Items	Parental Involvement	Harsh Discipline	Youth's Inability To Concentrate
How much do your parents really know about...			
Where you go at night?	.63	.03	-.21
How you spend your money?	.63	.03	-.25
Where you are most afternoons after school?	.59	.03	-.21
What you do with your free time?	.58	.01	-.28
How often do your parents...			
Watch you in sports or activities?	.57	-.16	-.32
Help you with your homework when asked?	.53	-.16	-.23
Know how you're doing in school?	.52	-.08	-.23
How much do your parents really know about...			
Who your friends are?	.47	-.01	-.20
My mother is a person who...			
Gives hard punishment.	-.07	.74	.23
Punishes hard, so I will remember it for a long time.	.03	.54	.11
Is very strict with me.	-.03	.51	.11
Spanks me so I will learn respect for my elders.	-.10	.39	.24
I act without stopping to think.	-.28	.15	.71
I have trouble concentrating or paying attention.	-.25	.13	.60
I am nervous or tense.	-.15	.15	.52
I feel confused or in a fog.	-.33	.20	.52
I daydream a lot.	-.26	.13	.50
I am poorly coordinated or clumsy.	-.15	.30	.48
I have trouble sitting still.	-.25	.10	.44

Note. N = 285. Response format for parental involvement items "how much do your parents really know about" was "doesn't know" (1), "knows a little" (2), and "knows a lot" (3). Response format for "how often do your parent" items was "never" (1), "once in a while" (2), "fairly often" (3), and "very often" (4). Response format for harsh discipline items was "not like her" (1), "somewhat like her" (2), and "a lot like her" (3). Response format for youth inability to concentrate items was "not true" (0), "somewhat or sometimes true" (1), and "very true or often true" (2). Oblimin rotation (i.e., oblique) was used.

Table 4

Descriptive Statistics for Independent and Dependent Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Youth Sex											
(2) Youth Age	-.02										
(3) Parent Marital Status	-.00	-.02									
(4) YR of IP Conflict	.02	.02	-.04								
(5) YR of Overt Conflict Style	.01	.01	-.23**	.37**							
(6) YR of Parental Invol.	-.17**	-.19**	.10	-.29**	-.32**						
(7) YR of Father's Harsh Discipline	.17**	.10	.05	.23**	.25**	-.24**					
(8) YR of Mother's Harsh Discipline	.05	.05	-.06	.23**	.27**	-.05	.52**				
(9) YR of Youth's Inability to Conc.	.01	.12*	-.09	.32**	.35**	-.35**	.33**	.23**			
(10) YR/TR of Academic Achiev.	-.05	-.01	.16**	-.29**	-.09	.17**	-.06	-.09**	-.16**		
(11) MR of Academic Achiev.	-.09	-.06	.17*	-.32**	-.22**	.25**	-.11	-.09	-.23**	.66**	
Mean	NA	12.6	NA	1.90	1.44	2.92	1.54	1.42	.49	NA	NA
Standard Deviation	NA	.92	NA	.65	.58	.44	.52	.41	.40	NA	NA
Cronbach's Alpha	NA	NA	NA	.88	.87	.79	.76	.62	.75	NA	NA

Note. Data based on 285 youth, 153 mother, and 285 teacher reports. YR stands for youth report, MR for mother report, and TR for teacher report.

* $p < .05$ ** $p < .01$

III. Results

Descriptive Statistics for Independent and Dependent Variables

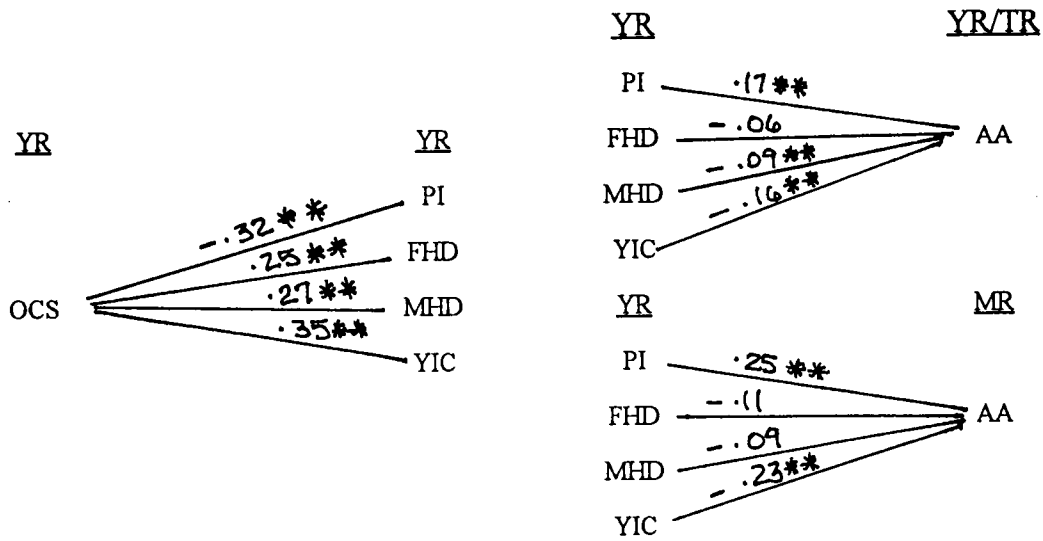
Zero-order correlations, means, standard deviations, and reliability coefficients for all the variables in the study are reported in Table 4. Youth reports of overt conflict style were associated with mother reports of academic achievement. However, contrary to what was expected, youth reports of overt conflict style were not significantly correlated with the youth/teacher combined report of academic achievement. Youth reports of overt interparental conflict style were associated with parental involvement, mother/father harsh discipline, and youth's inability to concentrate. Of the four associations among these variables and youth/teacher reports of academic achievement, two were correlated (parental involvement and youth's inability to concentrate). Of the four associations among these variables and mother reports of academic achievement, two were correlated (parental involvement and youth inability to concentrate).

Youth reports of frequency of interparental conflict were associated with both the combined report of academic achievement and mother reports of academic achievement. Youth reports of frequency of conflict also were associated with the parental involvement, father/mother harsh discipline, and youths inability to concentrate variables (see Figure 2 for the Correlation Model).

Hierarchical Regression Results - Fathers

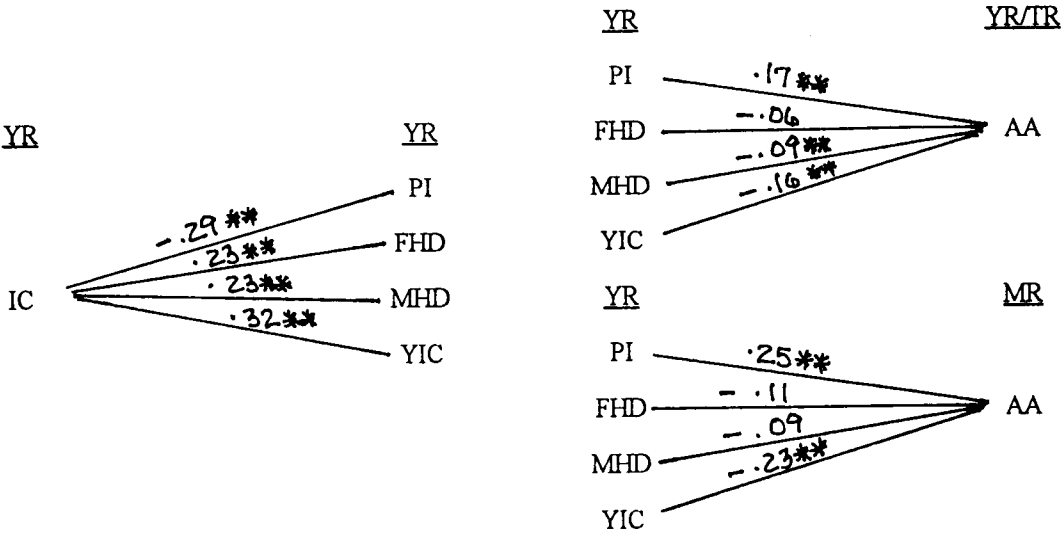
To test for possible direct effects of overt conflict style and a mediating effect through specific linking variables, a series of Hierarchical multiple regression equations were calculated. The linking factors that included youth reports of father's parenting variables

Overt Conflict Style



USING BOTH MR & YR/TR OF ACADEMIC ACHIEVEMENT
PI & YIC ARE ASSOCIATED WITH ACADEMICS.

INTERPARENTAL CONFLICT



OCS AND IC ASSOCIATION TO AA

OCS	_____	-.09	YR/TR
			AA
OCS	_____	-.22^{**}	MR
			AA
IC	_____	-.29^{**}	YR/TR
			AA
IC	_____	-.32^{**}	MR
			AA

CORRELATION MODEL

Figure 2

were addressed by this regression analysis. Four separate regression analysis was run entering father's harsh discipline in Block 4: One using mother's report of youth academic achievement controlling for interparental conflict, one using mother's report of youth academic achievement controlling for an overt conflict style, one using youth/teacher report of academic achievement controlling for interparental conflict, and one using youth/teacher report of academic achievement controlling for an overt conflict style (see Figure 3).

Mother's report of youth academic achievement

Using mother reports of youth academic achievement, the control variables were entered as the first block of variables to control for youths' sex, age, and parents' marital status. In the second block, frequency of interparental conflict was entered to further purify the model and control for conflict. In the third block, overt conflict style was entered to test for a direct effect, after controlling for the variables in blocks 1 and 2. In block 4, the linking variables were entered to test for a mediating effect between an overt conflict style (block 3) and mother reports of youth academic achievement (see Table 5).

Using mother reports of youth academic achievement, no significant mediator effects were found between an overt conflict style (after controlling for frequency of conflict) and youth academics ($F = 1.02, p = .38$). However, a direct effect was found between frequency of interparental conflict and mother reports of youth academic achievement ($F = 15.29, p = .0001$) (see Table 5).

A second regression analysis was run using the same variables in each block except that in block 2 overt conflict style was entered (as a control variable) and in block 3 frequency of conflict was entered. A significant F change was found to exist between overt

Father's Harsh Discipline

BLOCKS	Mother Report Youth AA	Youth/Teacher Youth AA	BLOCKS	Mother Report Youth AA	Youth/Teacher Youth AA
Block 1: YS, Age, PMS	*	*	Block 1: YS, Age, PMS	*	*
Block 2: FIPC	*	*	Block 2: OCS	*	*
Block 3: OCS	*	*	Block 3: FIPC	*	*
Block 4: FHD, PI, YIC	*	*	Block 4: FHD, PI, YIC	*	*

Mother's Harsh Discipline

BLOCKS	Mother Report Youth AA	Youth/Teacher Youth AA	BLOCKS	Mother Report Youth AA	Youth/Teach Youth AA
Block 1: YS, Age, PMS	*	*	Block 1: YS, Age, PMS	*	*
Block 2: FIPC	*	*	Block 2: OCS	*	*
Block 3: OCS	*	*	Block 3: FIPC	*	*
Block 4: MHD, PI, YIC	*	*	Block 4: MHD, PI, YIC	*	*

HIERARCHICAL REGRESSION

Figure 3

conflict style and mother reports of youth academic achievement ($F = 6.61, p = .01$). However, when frequency of conflict was entered into the equation, overt conflict style became nonsignificant. Frequency of interparental conflict remained statistically significant throughout the analysis, indicating a direct effect for interparental conflict ($F = 10.05, p = .002$) (see Table 5).

Youth/teacher report of youth academic achievement

Using combined youth/teacher reports of academic achievement, the control variables were entered as the first block of variables to control for youths' sex, age, and parents' marital status. In the second block frequency of interparental conflict was entered to further purify the model and control for conflict. In the third block overt conflict style was entered to test for a direct effect after controlling for the variables in blocks 1 and 2. In block 4 the linking variables were entered to test for a mediating effect between overt conflict style and youth/teacher reports of academic achievement (see Table 5).

The association between overt conflict style and youth academic achievement was nonsignificant ($F = 1.16, p = .33$). However, a direct effect was found between frequency of interparental conflict and youth/teacher reports of youth academic achievement ($F = 25.11, p = .0000$) (see Table 5).

A second regression analysis was executed that manipulated the same variables in each block except that in block 2 overt conflict style was entered (as a control variable) and in block 3 frequency of conflict was entered. No significant F change was identified for overt conflict style. Once again, frequency of interparental conflict remained statistically significant

Table 5

Hierarchical Regression of Youth Reports of Conflict Variables and Mediators Predicting Youth/Teacher and Mother Reports of Youth Academic Achievement

Youth Report of Conflict Variables	Mother's Report Youth Academic Achievement		Combined Report Youth Academic Achievement	
	F _Δ	R ² _Δ	F _Δ	R ² _Δ
Block 1:				
Youth Sex, Age	1.74	.02	2.56	.03
Parent's Marital Status				
*Block 2:				
Frequency of IP Conflict	15.29**	.05	25.11**	.08
*Block 3:				
Overt Conflict Style	1.55	.01	.80	.002
Block 4:				
Father's Harsh Discipline	1.02	.01	1.16	.01
Parental Involvement				
Youth's Inability to Concentrate				
*Block 2:				
Overt Conflict Style	6.61**	.02	.99	.003
*Block 3:				
Frequency of IP Conflict	10.05**	.03	24.82**	.08

Note: N = 285. *These data represent the findings from two different regression analyses only in the order of blocks 2 and 3. **p < .01
*p < .05.

throughout the analysis, indicating a direct effect for interparental conflict ($F = 24.82$, $p = .0000$) (see Table 5). None of the proposed linking mechanisms mediated this association. Beta weights from the final regression equation table are reported in Appendix B, Table 5.

Hierarchical Regression Results - Mothers

To test for possible direct effects of an overt conflict style and a mediating effect through specific linking variables, a series of Hierarchical multiple regression equations were calculated. The linking factors that include youth reports of mothers's parenting variables were addressed by this regression analysis. Four separate regression analysis was run entering mother's harsh discipline in Block 4: One using mother's report of youth academic achievement controlling for interparental conflict, one using mother's report of youth academic achievement controlling for an overt conflict style, one using youth/teacher report of academic achievement controlling for interparental conflict, and one using youth/teacher report of academic achievement controlling for an overt conflict style (see Figure 3).

Mother's report of youth academic achievement

Utilizing mother reports of youth academic achievement, the control variables were entered as the first block of variables to control for youths' sex, age, and parents' marital status. In the second block frequency of interparental conflict was entered to further purify the model by controlling for conflict. In the third block overt conflict style was entered to test for a direct effect after controlling for the variables in blocks 1 and 2. In block 4 the linking variables were entered to test for a mediating effect between an overt conflict style and mother reports of youth academic achievement (see Table 6).

Table 6

Hierarchical Regression of Youth Reports of Conflict Variables and Mediators Predicting Youth/Teacher and Mother Reports of Youth Academic Achievement

Youth Report of Conflict Variables	Mother's Report Youth Academic Achievement		Combined Report Youth Academic Achievement	
	F _Δ	R ² _Δ	F _Δ	R ² _Δ
Block 1: Youth Sex, Age Parent's Marital Status	1.74	.02	2.56	.03
*Block 2: Frequency of IP Conflict	15.29**	.05	25.11**	.08
*Block 3: Overt Conflict Style	1.55	.01	.80	.002
Block 4: Mother's Harsh Discipline Parental Involvement Youth's Inability to Concentrate	1.01	.01	1.23	.01
*Block 2: Overt Conflict Style	6.61**	.02	.99	.003
*Block 3: Frequency of IP Conflict	10.05**	.03	24.82**	.08

Note. N = 285. *These data represent the findings from two different regression analyses only in the order of blocks 2 and 3.

**p < .01 *p < .05.

The association between overt conflict style and youth academic achievement was nonsignificant ($F = 1.01, p = .39$). However, a direct effect was found between frequency of conflict and mother reports of youth academic achievement ($F = 15.29, p = .0001$) (see Table 6).

A second regression analysis was executed that utilized the same variables in each block except that in block 2 overt conflict style was entered (as a control variable) and in block 3 frequency of conflict was entered. A significant F change was found to exist between overt conflict style and mother's report of youth academic achievement ($F = 6.61, p = .01$). However, when frequency of conflict was entered into the equation an overt conflict style became nonsignificant. Frequency of interparental conflict remained statistically significant throughout the analysis, indicating a direct effect for interparental conflict ($F = 10.05, p = .002$) (see Table 6). None of the proposed linking mechanisms mediated this association.

Youth/teacher report of youth academic achievement.

Using combined youth/teacher reports of academic achievement, the control variables were entered as the first block of variables to control for youth's sex, age, and parent's marital status. In the second block, frequency of interparental conflict was entered to further purify the model and control for conflict. In the third block, overt conflict style was entered to test for a direct effect, after controlling for the variables in blocks 1 and 2. In block 4, the linking variables were entered to test for a mediating effect between an overt conflict style and youth/teacher reports of academic achievement (see Table 6).

The association between overt conflict style and youth academic achievement was nonsignificant ($F = 1.23, p = .30$). However, a direct effect was found between frequency

of interparental conflict and youth/teachers report of youth academic achievement ($F = 25.11, p = .0000$) (see Table 6).

A second regression analysis was conducted that manipulated the same variables in each block except that in block 2 overt conflict style was entered (as a control variable) and in block 3 frequency of conflict was entered. A significant F change did not occur, thus an overt conflict style remained statistically nonsignificant. Once again, frequency of interparental conflict remained statistically significant throughout the analysis, indicating a direct effect for interparental conflict ($F = 24.82, p = .0000$) (see Table 6). None of the proposed linking mechanisms mediated this association. Beta weights from the final regression equation table are reported in Appendix B, Table 4.

IV. Discussion and Implications

Before discussing the results, it is important to consider the limitations of this study. Only a few possible linking mechanisms were examined in this study. Future research should explore other possible important linking mechanisms (e.g., father's and mother's inconsistency, peer influence, and youth self-esteem). Additional findings might help explain subsequent variance in youth academic achievement.

This study was a cross-sectional research design. Longitudinal research is necessary to examine variations in parents' conflict and overt conflict styles. Reports across time could provide a more detailed characterization of youth's exposure to their parents' conflict and more specifically reflect its effect on youths' academic achievement. Also, other areas of adolescent functioning could be explored in conjunction with academic achievement (e.g., internalizing, externalizing). This approach would provide parents, educators and clinicians a broader view of youth adjustment in relationship to interparental conflict and an overt conflict style.

An overt conflict style is a multidimensional construct (Fincham, 1994). Research focused on other dimensions of this construct and its relationship to linking mechanisms could provide a finer understanding of conflict's effects on youth adjustment. These conclusions also are limited to one sample of families from a community in the southeastern United States. A replication study in another area of the United States would be beneficial in determining the stability of the results reported in this investigation.

A strength of the current study was the distinction between frequency of interparental conflict (i.e., disagreements) and conflict management styles used to govern conflict. The

use of this distinction conceptually has been called for in previous work (Cummings et al., 1994). When past studies have measured overt conflict, researchers have usually used the O'Leary Porter Scale and failed to differentiate between frequency of disagreements with overt conflict. This study measured frequency of interparental conflict (disagreements) and an overt conflict style using distinct scales.

The conclusions drawn from this study were strengthened by the use of instruments with substantial evidence of adequate reliability and validity (Achenbach, 1991; Ahrons, 1993; Barber, 1994; Brown et al., 1993). The conclusions drawn from this study also were strengthened by multiple informants. Youth, mothers, and teachers reported on youth academic achievement. Although the same informant (youth) reported on interparental conflict variables and the linking mechanisms, the cognitive tasks involved in these reports differed. Youths' assessment of interparental conflict involved reports of specific parental behaviors, where as, youths' assessment of parenting involved global evaluations of select parenting variables (Sabatelli & Waldron, 1995). This distinction, although subtle in some reports, is important because these different assessment strategies minimize some of the problems associated with shared method variances.

Overt Conflict Style

The central function of this study was to determine how an overt conflict style affects youth academic achievement and the function important linking mechanisms play in this understanding. Several major hypotheses were tested in this study: Hypotheses #1 stated that an overt conflict style would be related negatively to youth academic achievement with the direct association stronger statistically than the association between frequency of

interparental conflict and academic achievement. Hypotheses #2 through #5 stated that parental monitoring, parental harsh discipline, parental emphasis on achievement, and youth's inability to concentrate would separately serve as partial mediators between an overt conflict style and academic achievement.

The findings from this study did not support a direct association between how parents manage their conflict (conflict style) and youth academic achievement. This finding held across mother reports of academics and youth/teacher reports of academics. For youth in this study, the frequency of conflict was found to have a direct effect on their academics. Depending on the reporter, frequency of conflict accounted for a maximum of 11% of the variance in youth academic achievement. As such, youth exposure to parental conflict is important in association with their academic achievement. These results indicate that it is the disagreements that parents have that do not involve a hostile mode of expression (yelling, threatening, name calling, insulting, etc.) that place youth at risk for lower academic achievement. The more frequent the exposure, the more at risk youth conceivably are for lower academic achievement. In my opinion, one possible explanation for this finding is that when youth see their parents disagree, a feeling of ambiguity may be created. This uncertainty may place youth at risk for lower academics. In addition, past research has suggested that youth who experience their parent's disagreements without resolution may be placed at risk for negative adjustment (Cummings et al., 1994).

In a reduced regression model, frequency of interparental conflict was split into youth-related issues (parental) and nonyouth-related issues (nonparental) and then reanalyzed with the mediating variables identified for this study (see Appendix B for items). This

regression analysis suggested that frequency of interparental conflict-parental (parental disagreement over such issues as their youth's physical care, behavior in public or school, etc.) was statistically significant in its association with both mother reports of youth academic achievement and the combined report of youth academic achievement ($F = 9.51, p = .0001$ and $F = 13.46, p = .0000$, respectively) (see Appendix C, Tables 1 and 2). The last reduced regression conducted supported that parental involvement ($F = 4.46, p = .04$) mediated the association between frequency of interparental conflict ($F = 19.09, p = .0000$) and mother reports of youth academic achievement (see Appendix C, Table 3). The total variance explained by parental involvement was 8%. This analysis asserts that when parents' conflict (disagreements) is frequent and youth-related, it affects their involvement with their youth, in turn, putting their youth at a greater risk for lowered academic achievement. Parents who merely disagree (not in an overt manner) about such issues as their youth's behavior, physical care, or money, could possibly become self-absorbed and unwilling to help with homework or go to school functions. Their youth would not experience the parental support they need, in turn, negatively affecting their academics.

Mediating Effects of Important Linking Mechanisms

The association between how parents management their conflict and youth academic achievement was not mediated by monitoring, harsh discipline, parental emphasis on achievement, and youth's inability to concentrate. Preliminary analysis revealed that monitoring and parental emphasis on achievement were part of the same construct. In other words, parents who monitor their children are also those parents who place an emphasis on achievement. Although none of the mediating variables were supported as important linking

mechanisms between how parents manage their conflict and youth academic achievement, the association between frequency of interparental conflict was statistically significant for each of those variables. This statistical association indicated that parental involvement and a youth's inability to concentrate were associated with youth academics (see Figure 2).

As noted earlier, one of the consistent correlates of academic achievement for youth in middle through high school is the frequency of conflict that occurs between their parents. Past research also suggested that parental involvement and a youth's inability to concentrate are correlated with their academics (See as examples, Brown et.al, 1993; Paulson, 1994; Wentzell, 1994). The correlation results in this study appear to replicate past research which suggest a relationship between the frequency of interparental conflict and youth academic achievement.

Suggestions for Future Research

Future research should continue to investigate the conditions under which mediating variables may help to ameliorate lower academics in youth exposed to interparental conflict. Future research should reexamine the hypotheses tested in this study. It seems plausible that certain aspects of parenting behaviors or youth's own appraisals of the parental conflict might serve as potential moderators. Diverse samples including youth from varying ethnic and socioeconomic statuses need to be examined. Future researchers should use multiple informants across independent, mediating, moderating, and dependent variables to diminish viable systematic method variance.

It is important that future research maintain a multidimensional conceptualization of the overt conflict style concept (i.e., frequency, chronicity). Also, past research measured

interparental conflict and overt conflict style within the same measure and concluded that the conflict style placed youth at risk for lowered academic achievement. Results from this study are contrary to past research findings. This study forwarded the literature by measuring frequency of conflict and overt conflict style separately. This study suggests it is the frequency of interparental conflict (disagreements), not the hostile way of managing these disagreements, that place youth at risk for lowered academic achievement. A replication of this study would further evaluate the stability of the findings reported in this study.

Finally, this study forwarded the literature by focusing on sixth- through eighth-grade adolescents and their academic experience during middle school. Past researchers have focused on younger children (Wentzel, 1994). Future research could provide insightful information and perhaps a developmental perspective by sampling early adolescents compared with older adolescents as they transition into high school.

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APPENDICES

APPENDIX A

ADOLESCENT ACADEMIC ACHIEVEMENT

The early adolescent period has long been thought of as an especially important time of development (Wigfield & Eccles, 1994). Youth undergo the biological and social changes associated with adolescence; changes in their friendships and in the ways they interact with their peers; changes in their relations with their parents; and changes in the school environments they experience as they move first from elementary school to middle school and then to high school (Wigfield & Eccles, 1994). For many youth, adolescence is the beginning of self-reflectiveness and identity investigation that will lead to novel intellectual interest, more self-regulated learning, and a commitment to education as a path toward the future selves they hope to be (Goodenow, 1993). Certainly these changes can pose important challenges that many early adolescents must successfully master to maintain academic achievement. For many youth, early adolescence is in a very real sense a "turning point" in their educational lives (Carnegie Council on Adolescent Development, 1989).

This study examined several possible linking mechanisms that could mediate the relationship between parents' conflict style and youth academic achievement. For this study, academic achievement was defined as the ability to demonstrate a mental aptitude that yields acceptable levels of performance in school work (i.e., grades). The purpose of this review was to broaden the focus used in the study, and consider other domains that may effect youths' academic achievement. This discussion examined various research involving adolescents and their families, school environment, peer association, and individual characteristics found to influence their academic achievement.

Familial Influences

Parenting. Research involving family influences on achievement has found that several parenting practices and characteristics relate positively to children and adolescents' school achievement, particularly authoritative parenting styles and parental involvement (See as examples, Baumrind, 1967, 1971; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Hess & Holloway, 1984; Linney & Vernberg, 1983, for reviews). However, past research demonstrates that parental involvement declines when youth reach middle school and continues to decline through high school (Epstein, 1987b; Lucas & Lusthaus, 1978). Historically, the influences of parenting style and parental involvement have been studied in separate lines of research. Adolescent studies often captured only youth's perceptions of the parenting behaviors.

Extending this earlier work, Paulson (1994) explored the relative influences of parenting style and parental involvement on early adolescents' school achievement and

compared the relations of adolescents' (both girls and boys) and their parents' perceptions of parenting to achievement. Achievement was measured by adolescents' self-reported grades because such grades reflect current achievement, rather than level of intellectual capability. This measure of academic achievement also has been endorsed by Dornbusch et al. (1987). Parenting style was measured along a continuum by two dimensions of demandingness and responsiveness. Previous research had measured parenting style in discrete categories. Parental involvement was appraised using a multidimensional measure to capture several parenting attitudes and behaviors. Previously, these parenting attitudes had been studied in separate research endeavors (i.e., interest in schoolwork and grades, involvement in school functions, and attitudes toward achievement).

In Paulson's study, both girls' and boys' reports of parents' demandingness, responsiveness and parental involvement in achievement predicted significant proportions of the variance in achievement outcome. For example, higher levels of parental control (demandingness/monitoring) were related to higher levels of achievement for both boys and girls. However, the proportions of variance explained were small. High levels of involvement related significantly to achievement. This finding would appear to support the idea that, although parental involvement decreases in higher grades, when it does occur, it continues to be important for achievement. Paulson's study supports previous research that adolescents' and parents' perceptions of parenting behaviors may not always be in agreement and may not always predict adolescent outcomes in the same way (See as examples, Collins, 1990; Feldman, Wentzel, & Gehring, 1989; Paulson, Hill, & Holmbeck, 1991; Smetana, 1988; Schwarz, Barton-Henry, & Pruzinsky, 1988). For example, adolescents' achievement was more significantly related to their perceptions of parenting than to what parents thought they were doing. It may be that the adolescents reported how their parents were actually parenting and are more accurate reporters. However, adolescents reported achievement and parenting and, therefore, could have triggered respondent bias. One possible method for reducing respondent bias would be to gather responses from multi-informants. For example, teacher reports on achievement in addition to parents and adolescents. Another way to eliminate this possibility would be to use school records of achievement instead of self-report.

Wentzel (1994) proposes that few studies have examined concurrently, links between parenting and children's social and emotional adjustment on the one hand, and between social and emotional adjustment and achievement on the other. Results from a four-year research program involving sixth grade boys and their parents, conducted at the Stanford Center for the Study of Families, Children and Youth, provide initial evidence of the mediational role of emotional distress and behavioral restraint in linking family functioning with academic achievement. Parental control strategies and the affective quality of interactions among parents and youth engaged in joint problem solving were examined (Feldman & Wentzel, 1990). Problem solving sessions involving the mother and adolescent, father and adolescent, and mother and father were videotaped. All dyadic functioning was coded on levels of hostility and parent-child dyads were coded on levels of appropriate parental control. Appropriate control measures allowed for youth autonomy while

preserving acceptable family limits. Son's restraint was measured by teacher ratings and peer nominations of considerate, impulsive, responsible, and aggressive behavior. Academic achievement was cataloged by year-end grade point average (GPA).

Wentzel (1994) reports that appropriate parental control was related positively and parent-child hostility related negatively to academic achievement. Analyses also suggested the association between parent-son interaction and achievement was mediated almost entirely by sons' social adjustment as measured by restraint. Also, significant correlations between father-son interactions and sons' restraint and between mother-son interactions and academic achievement were weakened when mother-father hostility was taken into account. From these results, it would appear that how parents interacted with each other was as influential in connection to their sons' restraint and academic achievement as how the parents interacted with their sons.

In a second study, Wentzel, Feldman, and Weinberger (1991) replicated the first study but extended it to include sons' emotional adjustment as an additional mediator between parenting practices and achievement. Parenting practices were measured by the sons' report of mothers and fathers' inclination to be inconsistent and harsh by being authoritarian and also likely to use strict punishment. Results showed that sons' self-restraint was a mediator between the quality of fathers' parenting styles as perceived by the son and academic achievement. Mothers' parenting styles influenced achievement both directly and by way of sons' emotional adjustment. Findings from the first two studies suggested that emotional distress and self-restraint played a mediational role in linking parenting practices to academic achievement.

A third study focused on parenting practices and parents' SES during their sons' early adolescence as predictors of their sons' subsequent self-restraint and motivation to achieve in high school (Wentzel & Feldman, 1993a). Sons reported on parent inconsistent parenting styles. Parental beliefs were assessed by asking mothers and fathers how far they expected their sons to go in school. The study included parental beliefs because it was hypothesized this type parenting might be related to youth's motivation to achieve by way of sons' self-restraint. Self-report questionnaires were used to measure sons' self-restraint. Motivation was measured with parents' reports of sons' interest in school and sons' reports of effort in relation to school activities. Wentzel et al. (1993) reported that parenting practices were correlated significantly with sons' motivation to achieve over time.

As in the two previous studies of academic achievement, this relation was found to be indirect by way of sons' self-restraint. This study also reports that sons' whose mothers demonstrated consistent parenting styles and who consistently had high expectations for them were those sons who also demonstrated the highest levels of self-restraint and, in turn, displayed motivation to achieve four years later. It was inconsistency by fathers in early adolescence that was related to sons' low motivation to achieve in high school by way of sons' lack of self-restraint. Fathers' SES was a direct motivation predictor independent of

sons' self-restraint. The only positive, independent predictor of classroom grades in high school was found in son's motivation to achieve.

In general the results of these three studies support that youths' academic achievement in middle school corresponds significantly to their degree of emotional distress and self-restraint. It appears that parenting styles, parent-child interactions, and parental beliefs may influence academic outcomes by way of these social and emotional outcomes. Specifically, parenting practices that are considered less-than-optimal could affect school achievement by creating significant levels of emotional distress that, in turn, affect motivation and learning (Wentzel, 1994).

Family configuration and income. Battle (1995) reviewed the literature and examined the relative effects of family configuration and socioeconomic status among black and white middle-school youth and the subsequent effects on academic achievement. Research does exist to support the position that for many youth in the family "all is not academically lost after a divorce," (Adams, Miller, Reavis, & Reglin, 1989; Mednick, Baker, Reznick & Hocesvar, 1990). However, studies have generally shown that children of divorced families evidence slightly more maladaptive behavior, peer rejection and poorer academic performance than do children of intact families (Mednick et al., 1990).

Battle's data were drawn from the first wave of the National Education Longitudinal Study of 1988, under the direction of the National Center for Education Statistics. This sample represented approximately three million eighth graders in more than 38,000 schools during the spring of 1988. Educational achievement was measured by a standardized composite of math and reading tests. Grades were self-reported by students. Youth living in single-parent households were coded one and youth living in two-parent households were coded zero. Several other household compositions were recorded (10% of the overall sample). However, for theoretical reasons, those households were deleted from the analyses. Socioeconomic status was measured using parent report on father's education level, mother's education level, father's occupation, mother's occupation and family income. Socioeconomic status was used as a moderator to better understand if students from single versus two-parent families got the same return from their socioeconomic status level.

The findings of this study indicated that when socioeconomic status was controlled, there was no difference between students in divorced and married families. However, when socioeconomic status was used as a moderator, and all other variables were controlled, the interaction between the family configuration and socioeconomic status was significant: Youth in single-parent families do not get the same return for socioeconomic status as do youth in two-parent families. In other words, there are differences for youth in single and two-parent households at various levels of socioeconomic status. This study supported that as one goes from lower to higher levels of socioeconomic status, youth in two-parent families get a much greater return on education achievement than youth in single-parent families. However, what was most interesting in this study was the finding that at lower level of

socioeconomic status youth in single-parent families significantly out score youth in two-parent families. One explanation for this finding is that two-parent families at such low level socioeconomic status could experience more conflict. Argument has been made that single-parent households are one of the reasons for poverty in America, so it would be expected that two-parent families would be at a higher level of economic functioning. When they are not, more conflict between parents may occur, thus placing youth at greater risk for lower academic achievement (Battle, 1995).

Downey (1994) used a large nationally representative data set collected by the National Center for Education Statistics designed specifically to examine student educational achievement and familial factors that promote or inhibit educational success. This data set contains information on youth academic performance such as grades, scores on standardized tests and teacher reports of classroom behavior. Also, the data rely on multiple sources such as parent and teacher reports as well as school records, in addition to student-based information. This large and diverse sample of adolescents (eighth graders) compared 409 students living with single father, 3,483 living with single mother, and 14,269 living with both parents, according to parental reports.

Economic parental resources were indexed by family income (in dollars), a composite of the presence/absence of educationally related objects in the home (i.e., place to study, daily newspaper, encyclopedia, typewriter, computer, books, calculator, and one's own room). Interpersonal parental resources were measured by how involved parents were in their child's school's PTA activities, their educational expectation for their child, how many of their child's friends they know by name, how many of these friends' parents they know by name and how frequently they help their child with home work. Students responded by questions about whether their parent attended school meetings, attended events in which they participated, how frequently their parent talked to them about academic matters and how frequently the parent set down household rules. Academic achievement was measured by student-reported grades and by scores on standardized math, reading, history, and science tests. Teacher reports of student's classroom behavior were used to construct scales of student effort and obedience, an element of school performance for which children from single-parent families frequently receive poor ratings. Mother's and father's highest level of education was recorded (0=did not graduate high school, 5=advanced degree). Race was split into five categories and used as background controls.

Downey (1994) found that single fathers more closely matched the profile of parents in two-parent families, than the profile of single mothers, with respect to education and race. However, single mothers were less educated and more likely to be minority status than either single fathers or married parents. The findings of this study indicated that despite these advantages, children from single-father families do not fair better in school than children from single-mother families. Although youth from single-father homes scored higher on standardized tests, their grades were no higher than youth from single-mother families. Economic deprivation was more useful for explaining the disadvantage for youth in single-

mother families. If children in single-mother homes had the same economic resources as those in two-parent families, they would have had higher educational achievement. Single mothers provided greater levels of interpersonal parental resources to their children than did single fathers. Lack of interpersonal resources, such as time spent talking to the youth about school work, parental involvement in the youth's school activities, and lack of involvement in friends was more useful for explaining the disadvantage for children in single-father families. If youth in single-father homes received the same parental resources as those in two-parent families, they would have possibly experienced higher educational achievement. In general, the results of these studies show that children in single-parent families may be placed at greater risk for lower academics and may not get the same return from socioeconomic status as youth in two-parent families. However, these disadvantages are not due to the parents marital status, per se. They appears to be due in part, to diminished or a lack of resources. Also, single fathers and mothers specialize in providing different types of resources to their children.

Cultural and racial inclines. Many studies have documented that Asian-American students, in general, do well in school. As cited in Peng and Wright (1994), they have higher achievement scores, lower dropout rates, and higher college entrance rates than other students. Many studies also have documented that, on average, African-American students score below white students on tests of academic achievement. This pattern holds even when socioeconomic status, sex and residence are held constant (Voelkl, 1993). What are the intrafamilial processes and practices that produce such outcomes in adolescence?

Peng and Wright (1994) examined the kinds of home environments and educational activities that could account for the differences in academic achievement experienced by Asian-American adolescents. This sample represented over 25,000 eighth graders, their parents, and teachers drawn from the National Education Longitudinal Study of 1988. This data set provided an adequate representative sample of Asian-American, black, white and other adolescents. Information was gathered on family composition, parents' education level, and family income. Discipline and effort, parental assistance, educational pressure, and additional lessons and activities were measured. Adolescent academic achievement was measured by the combined test scores of reading and mathematics.

Past research supports that the socioeconomic condition of the family, the extent of communication (regardless of ethnicity) among family members, and the learning activities provided or supported by parents are related to adolescent learning. These findings have been summarized in review articles by Clark-Stewart, (1988); Hess & Holloway, (1984); Schneider & Lee, (1990); Scott-Jones, (1984); and for African-American students in particular by Slaughter and Epps (1987). Analysis indicated that parents' education level and family income were positively related to achievement. This confirms previous research that adolescents with higher family socioeconomic status are likely to have higher academic achievement. Adolescents living with both biological parents had higher achievement scores than other youth. More time spent on homework indicated higher achievement scores.

Among all variables, educational expectations for youth had the highest correlation (.42), indicating that high expectations is a powerful predictor of adolescent achievement.

Asian-American students had higher achievement scores than all other minority students. However, the difference in achievement between Asian-American and white adolescents was not significant. In reference to home environment, Asian-American parents did not communicate (i.e., discuss school experiences and plans) with their adolescents as much as black parents or white parents. Nor did they directly assist their adolescents in homework. However, Asian-American parents implicitly or explicitly set more significant expectations than all other parents and provided their adolescents with more learning opportunities than other minority parents (i.e., education trips or vacations, additional educational classes).

In this study, race-ethnicity accounted for 10% of the variance in student achievement. Results also demonstrated that school, home environment, and educational activities accounted for 30% of the variance of adolescent achievement. However, when all variables were included in the analysis with race, the portion of variance accounted for increased only 3%, indicating that race added only 3% of the accountable variance. Also, the difference in achievement predicted by race-ethnicity decreased after home environments and educational activities were considered. After controlling for educational experiences provided by parents, white adolescents had higher academic achievement scores. All these results indicated that the differences in home environments and educational activities, not race itself, largely accounted for the differences in adolescent achievement between Asian-American and other minority students.

The findings from this study suggested that an adolescent's home environment and educational activities are important predictors of academic achievement. When families support learning, adolescents experience high achievement scores. This study demonstrated that home environment and educational activities account for a large part of the difference in adolescent achievement between Asian-American and other minority students. The results of this study also indicate that parents can provide a valuable contribution to their adolescent's achievement through the home environment. Parents can make an invaluable contribution through positive discipline and effort as well as an emphasis on learning. Parents may offer their support by encouraging their adolescents to complete homework, participate in additional learning experiences outside of school and provide opportunities for their adolescents to participate in educational trips or vacations. Parents may also establish high expectations for their adolescents and communicate these expectations in such ways that the adolescent understands education is highly valued in the family. This idea can provide adolescents with a "sense of mission, direction and challenge" (Voelkl, 1993, p. 351).

Peer Influences

Although the significance of the family in the development of achievement-related considerations and behavior in adolescence cannot be disputed, the adolescent's peer group as an agent of socialization during the adolescent years also has received substantial consideration (Elmen, 1991). The quality of children's relations with peers has been linked to academic achievement (Green, Forehand, Beck, & Vosk, 1980). As reported in East, Lerner, Lerner, Soni, and Jacobson (1992), studies have found that individual-group similarity in the school context was associated with favorable academic self-concept, in frequent school absences, and later educational and occupation attainment.

East et al. (1992) investigated early adolescent-peer group fit, peer relations, and competence (including scholastic competence). Data were drawn as part of the Pennsylvania Early Adolescent Transitions Study (PEATS). This sample represented 101 sixth graders (56 males and 45 females), the average age was 11 years. The adolescents were administered tests over the course of the sixth and seventh grade school years. Eight teachers took part in the study. The adolescents' temperament, peer demands regarding temperament, early adolescent temperament-peer group fit, peer relations, and competence were measured. Teacher completed the Teacher's Behavior Rating Scale which assesses teachers' independent judgment of the adolescents competency.

Results demonstrated that early adolescents' mood, flexibility, and approach behaviors that matched with those of their classmates were more likely to receive acceptance from their peers than those possessing different temperaments from their peers. Adolescents whose behaviors were similar to those of their peers in adaptability and tasks such as eating, sleeping, and daily habits, were more likely to see themselves and be seen by teachers as highly competent individuals (East et al., 1992). These findings seem to signify that adolescents who cannot successfully meet the behavioral demands of their peer group may very well experience low scholastic competence and poor peer acceptance. Findings in this study also support that adolescents' peer relations were closely associated with their self-perceptions of competence and their teachers' perceptions of their competence. It could be said this finding follows the view that an adolescents' self-concept may largely be a function of how accepted and valued adolescents feel by significant others, particularly parents and peers. These findings also imply that teachers' rating of students' competence are related to how the adolescents are perceived and reacted to by their peer group. Consequently, teachers' appraisals of an adolescent's competence may depend on the adolescent's formulation of his or her competence in the context of peer group acceptance.

Goodenow and Grady (1993) investigated the relationship of school belonging and friends' values to academic motivation. These researchers point out that academic motivation is not a purely individual, intrapsychic state; rather it evolves from a complex web of social and personal relationships. They emphasize the importance of academic achievement in the context of the adolescents sense of belonging in the school or classroom. The influence of

friends and peer groups on students' academic achievement and attitudes toward school has been widely noted (e.g., Brown 1990, Coleman, 1961; Steinberg, Dornbusch, & Brown, 1992) with early adolescence marking the highest point of conformity to peers (Berndt, 1979). Since an adolescent's friends can have a negative as well as positive influence, this influence could spur peculiar predicaments for students whose peer group affiliations hold antiacademic standards.

The Goodenow et al. (1993) study focused on urban adolescents in the seventh through ninth grade. A total of 198 students completed the survey (104 boys and 87 girls). This study assessed school belonging, which included measures for friends' academic values, expectancy of school success and value of academic work. Motivation and effort/persistence also were assessed. Results supported that school belonging and friends' values on academic motivation and effort were significantly correlated with friends' values. However, in none of the analysis did friends' values have a higher level of association with outcome measures than did school belonging.

Three notable conclusions were drawn from this study's results. Many urban adolescents could experience a low sense of school belonging and poor school motivation. Second, adolescents who do experience a high sense of school belonging are more likely to be academically engaged than those adolescents with low school belonging. Finally, the value an adolescent's friend places on academics is important to an adolescent's academic motivation. However, these authors reported that despite positive academic motivation scores, students expressed relatively weak beliefs that they "belonged" in their schools, that the teachers and their peers respected and valued them, and that their friends valued school success. School belonging accounted for substantial proportions of the variance in attitudinal scales that measured general school motivation, expectancy for academic success, and especially the value that adolescents attributed to academic work.

From this finding one could conclude that adolescents place importance on how valued they are by their friends and its relation to attitudes toward academics. "Almost all people find school (or other work settings) more enjoyable, worthwhile, and interesting when they believe that others in the environment like and value them" (Goodenow et al., 1993, p. 68).

Studies by Berndt, Miller, and Park (1989) examined junior high students' perceptions of their friends' influence on their attitudes, behavior, and performance in school. The Berndt et al. (1989) studies measured the extent to which an adolescent perceived their friends as influencing various aspects of their school functioning. An insignificant percentage of young adolescents in each of the two studies perceived their friends as influencing various aspects of their school adjustment (including classroom involvement and grades), and these students indicated that their friends more frequently exerted a positive influence rather than a negative influence on them. In these studies parents were perceived as providing a greater positive influence on adolescent adjustment than their peers.

This evidence substantiates that both parents and peers play a role in the socialization of achievement-related consideration in adolescence. Having previously reviewed some of the potential impact parents and peers have on the achievement orientation of adolescents, the following section will discuss some of the research on the impact of various aspects of the school environment on achievement during adolescence.

School Influences

Research involving school influences on achievement during early adolescence has centered on the structural changes that transpire with the passage from elementary to junior high school (middle school) or on aspects of the teacher-student relationship (Elmen, 1991). The transition to junior high school happens at a time when most young adolescents also are experiencing the physical, psychological, and social changes associated with adolescence, including the new role demands presented by parents, peers, and teachers. Furthermore, the school environment of conventional junior highs often are profoundly different from elementary schools (Lord, Eccles, McCarthy, 1994). In junior high, as noted by Eccles and Midgley (1989), there often is an increase in the use of competitive motivational strategies and rigor in grading, and a decrease in personal contact between students and both their peers and teachers. This passage can be detrimental to some adolescents. The adolescent's self-esteem may lower and adjustment to junior high school may be difficult (Eccles & Midgley, 1989).

Adolescent transition - teachers. Lord et al. (1994) studied the relationship of several protective risk factors appraised in Grade 6 with indicators of early adolescents' adjustment to the junior high school transition. Using a longitudinal design, this study assessed sixth-grade school achievement level, the youth's perceptions of their own abilities, worries they had about their abilities and self-consciousness, and perceptions of their family environment. Sixth grade self-esteem and academic achievement were treated as control variables, sixth-grade indicators of protective and risk factors were treated as predictors, and seventh-grade indicators of adjustment as outcome measures.

Four waves of data were collected over the junior high school transition. Early adolescents and their families completed questionnaires twice each year (fall and spring) during the adolescents' sixth grade (elementary school) and seventh grade (first year in junior high). Elementary sixth grade teachers and junior high seventh grade teachers completed forms rating each youth on several characteristics, including how well the student was performing as compared to others in the class on math and English. Students' scores on the most recent standardized test in math and English given by the school were included as part of the achievement scale. The sample included 1,000 girls and 860 boys.

Results indicated that youth exhibiting greater confidence in their academic, social, and athletic abilities in the sixth grade had higher gains in their self-esteem following the transition to junior high. When compared with each other, a youth's math ability, physical

attractiveness, and peer social skills was a stronger predictor of positive self-esteem. The cluster of worries and self-consciousness constructs were associated with declines in self-esteem across the transition to junior high. Academic self-concepts also reliably predicted students' liking of junior high. The confidence an adolescent has in their peer-related social skills emerged as a salient contributor to their overall self-evaluation and adjustment to junior high school (Lord et al., 1994).

In comparison to the results for self-esteem, sixth-grade academic performance was a much stronger predictor of both parents' and teachers' ratings of each students' adjustment to junior high school than was sixth-grade self-esteem. By spring of seventh grade, sixth-grade self-esteem was no longer a significant predictor of teachers' ratings of the students' adjustment. These results appear to support that teachers' view of early adolescents' adjustment to junior high school are primarily related to the students' academic performance (Lord et al., 1994). Teachers relating adjustment primarily to academic achievement is somewhat discouraging since academic performance is only a segment of the areas involved in adolescent adjustment to junior high school. However, this finding is not surprising considering the departmentalized classrooms, and the increased number of students in junior high schools. Teachers' measure for assessing a student's adjustment would be limited and it would follow that their assessment of adjustment would fall on their awareness of the students' academic performance. Another absorbing distinction characterized the teacher results. In contrast to the results for self-esteem, academic self-consciousness was related to teachers' high ratings of student adjustment rather than low ratings (Lord et al., 1994). Apparently, indicators of anxiety that are related negatively to students' self-esteem, such as academic nervousness and self-consciousness, are viewed as favorable by the teacher. This value to teachers could be very detrimental to the student in that they may be receiving positive feedback from teachers for characteristics that appear to sabotage their own self-esteem. This external positive support for things that are internally painful could cause conflict and trepidations in the students and result in more emotional anguish (Lord et al., 1994).

Gregory (1995) presented a model that identified several factors that have contributed to the success of high school students with histories of school failure. Data were collected from 66 high school students, ages from 14 to 25 years, who had previously participated in an antischool subculture. Each of these students turned the negative effects of failure into positive effects by deliberately changing their behaviors and turning their lives around. Although these students ascribe both responsibility and credit to themselves for their accomplishments, one important finding offered by this research is that these students were members of school settings that provided consistent help in goal setting, decision making, and understanding the consequences of their actions. Also, all of the students who succeeded in turning their academics around reported positive elementary school experiences. In many cases, the teachers and counselors were cited as original sources of the student's ability to begin the turnaround process. Students spoke of teachers that took a "real" interest in them as a person or counselors that were always involved showing "real" concern for their

progress. Throughout the study's interview with students they spoke of the positive effects from small classes and the efforts teachers made to engage them in subjects they were studying.

This study points out that school can play a powerful role in providing positive experiences if those are defined as attending to the individual needs of the adolescent. The experiences of this study's participants are instructive in demonstrating how children and youth who are ignored can be lost to the educational system (Gregory, 1995). Those who received the attention and help they needed were able to draw on those resources. Data indicated that many youth need a lot more attention than they are getting from schools, especially when they are making transitions from one level and/or one school to another. In general, this research supports the notion that youth-serving institutions can promote adolescents' resiliency and success by making their structure small and their adult populations accessible.

School size. Cotterell (1992) investigated the influence that school size appears to exert on student adjustment and coping both in the short term and some months after the event of transfer has occurred. This investigation is somewhat unique in that it focused on adolescents who had attended an elementary school encompassing grades one to seven. The mean age of students at time of transfer was 12 years 3 months. Students were progressing from small primary (elementary) schools into larger secondary (high school) schools. The transition period was taken to be the period enclosing the actual event of transfer from primary to secondary school and extending to about four months after the transfer event had occurred. Teachers were given list of students in their class and rated them on dependability, cooperativeness, aggressiveness, and achievement-oriented behavior. To capture the students' expectations of what high school would be like, students wrote brief predictions about the secondary school they planned to attend, according to three primary aspects: schoolwork, teachers, and other students. To measure their reactions to the transition, students wrote brief essays in the sixth week after their transition to the secondary school. For analysis, students were grouped according to the size of school attended at both primary school (small, large) and secondary school (medium, large) so as to yield three distinct transition paths: small to large, medium to medium and large to large.

Results indicated that student's degree of adjustment varied depending on the particular transition paths taken and on the time of measurement. The greater the environmental change, the more difficulties encountered by students at various measurement times. For example, students moving from small primary schools to large secondary schools were more optimistic than their peers before the change, but more anxious and disoriented in the weeks immediately after the transition. However, within four months the effects of change in school had diminished and difficulties in adjustment were then related more to personal characteristics of the students than transition paths. However, months after transfer, differences in student adaptability continued to affect adolescents' views of the classroom

environment. More adaptable students perceived their classrooms as more supportive, more organized, and more growth-oriented than students with continued adapting difficulties.

In terms of classroom environment, these results emphasize a paradigm of findings confirmed by past research that supports adolescents moving from elementary classrooms experience a "less facilitative environment" (Feldlaufer, Midgley, Eccles, 1988, p.152) at junior high school, and a marked decline "on all aspects of quality of school life" (Hirsch & Rapkin, 1987, p.1239) following the transition, specifically in teachers' support and warmth (Behan, Gresen, & Oakes, 1980). Although this study did not report results on academic achievement by grades, it supports other research which suggests systematic differences between the environment of primary (elementary) and secondary (junior high) school accentuate the likelihood of mismatch between person and environment. This mismatch may be manifested in motivation and achievement declines (Feldlaufer et al., 1988; Power & Cotterell, 1981). The results of this study appear to support that although the general size of school may influence adolescents' short-term adjustment, different environments and structures within the school (such as teacher supportedness, friendship, peer group, etc.) may have pronounced effects on the longer-term development of self-esteem and achievement (Feldlaufer et al., 1988; Power et al., 1981).

Other studies have assessed classroom differences between sixth and seventh grades. Compared to sixth-grade classrooms, seventh-grade classrooms provide less chance for participation in decision-making, more whole-class instruction, and less individualized instruction (Feldlaufer et al., 1988). As evidenced in this study, transition at early adolescence often brings changes in student's relationship with teachers. Seventh-grade teachers are less likely to trust students, place a greater emphasis on maintaining strict control, and are more likely to use public criticism as compared to sixth-grade teachers (Elmen, 1991; Feldlaufer et al., 1988). These studies demonstrate that early adolescents are affected by both positive and negative influences in the school setting. As Elmen (1991) states "teachers do make a difference."

Individual Influences

Self-esteem. As presented in this discussion, research supports the importance of family, peers and school influences on adolescent academic achievement. However, individual characteristics (i.e., self-esteem, gender, and age) cannot be ignored. Hundreds of research studies document the relationship between early adolescent self-esteem and academic achievement. The majority of studies have found positive correlations between self-esteem and academic achievement (Hoge, Smit & Crist, 1995). Researchers define self-esteem as the individual's overall evaluation of himself or herself or how one feels about oneself (Wigfield et al., 1994). Self-esteem is believed to develop during the elementary and middle school years, although researchers have argued about how early children can generate the kinds of general self-evaluations that are the basis of self-esteem. Also, self-esteem is one

indicator of social and emotional adjustment that has been used frequently to assess school adjustment success or failure, particularly during school transition (Fenzel, 1992).

Harter (1982) found no age-related differences in children's self-esteem in different samples of third-through ninth-grade children. Thus, it appears that overall children's self-esteem does not change greatly during elementary school. However, in a studies conducted by Marsh (1989) and Marsh, Carven, and Debus (1991), the results demonstrated that older elementary school-aged children had less positive self-concepts of abilities in several academic and nonacademic domains than did younger elementary school-aged children. The Harter scales are more general than the scales used in the Marsh study, which could be one reason why age differences were not obtained (Wigfield et al., 1994). The general pattern appears to be that younger children's self-reported competence beliefs are more positive than those of older children (Wigfield et al., 1994).

Hoge et al. (1995) conducted a longitudinal study in order to clarify the relationship between self-concept and academic achievement. This study provided opportunities for assessing causal effects in both directions, and measured self-concept at all three levels of specificity (i.e. general self-concept, academic self-concept, mathematic self-concept). The authors clarified their term "self-concept" as the same entity referred to throughout the literature as self-esteem. They forwarded the argument that empirical research does not allow any firm conclusion about the causal ordering of self-concept and academic achievement. In support of their argument they refer to Bryne (1986) and Skaalvik and Hagtvet (1990). At the onset of this study, adolescents were 11-13 years old in the sixth and seventh grades. A total of 363 students participated in the study. Grades were recorded in math, language arts, social studies, science, and physical education. This study replicated the methods most often used in past research when assessing the links between self-concept and achievement (correlations). Paths between general self-concept and grades, in either direction were weak and were seldom statistically significant. Grades in the spring of sixth grade had no impact on any change in self-concept at the beginning of seventh grade. Grades were more closely associated with math self-concept than academic self-concept and general self-concept. The correlations relating self-concept to subsequent grades were no stronger than those relating grades to subsequent self-concept. It is interesting to note that when using zero-order correlations in analysis the results are in agreement with most past research, and the results were similar to earlier research. However, when analysis employed structural equation models, controlling for earlier levels of self-concept, the paths were much weaker. Thus, this study suggests that the real influences of self-concept on achievement are weaker than correlational studies report, and, in general, grades have a bit more influence on self-concept than the opposite.

Using cross-sectional data, Liu, Kaplan, and Risser (1992) examined the reciprocal relationships between academic achievement and general self-esteem by specifying theoretically indicated intervening variables in each of the relationships. The purpose of their investigation was to ascertain if the relationship between academic achievement and self-

esteem were reciprocal. If this connection was shared, then what variables mediated this reciprocal relationship. Questionnaires were given to seventh through twelfth grade adolescents in a private, independent, co-educational preparatory school in a large city in the southwest. Academic achievement was measured by GPA. Academic self-concept was measured with a scale reflecting self-perceptions of approximating high academic standards. Self-esteem was measured by two scales, one by expressions of positive sentiments toward self, one by the absence of strong negative feelings toward self. Motivation was measured by a three-item scale indicating a need to do well in school work. Analysis was performed using structural equation modeling.

Results indicated that general self-esteem both influenced and was influenced by academic achievement. Liu et al. (1992) points out that this study supplements prior research by specifying the reciprocal relationships between academic achievement and general self-esteem. Adolescents' self-esteem was significantly influenced by academic achievement in that high achievement elicited positive perception of teachers' responses, which lead to the adolescent experiencing positive global feelings about themselves. Also, as related to high academic self-concept, high academic achievement lead to the adolescent experiencing positive perceptions of themselves in academic performance, which in turn encouraged positive general self-feelings. Also, self-esteem was influenced by academic achievement through both perception of teachers' response and academic self-concept such that high academic achievement precipitated high perception of teachers' responses and perception of teachers' responses in turn evoked positive academic self-feelings, leading in turn to positive general self-feelings.

Gender differences. A set of studies conducted by Wigfield et al. (1994) investigated the change in children's competence beliefs, achievement values, and general self-esteem across elementary and junior high school. Study 1 measured longitudinal change across the elementary school years in children's competence beliefs, general self-esteem and subjective task values for different areas, including math. This study also examined gender differences in these areas. Drawing on past research, it was predicted that self-esteem should be relatively stable across the elementary school. Children's competence beliefs and values should decrease over time, particularly their beliefs and values regarding academic activities. Gender differences in competence beliefs and values should increase over time. Boys should have increasingly more positive competence beliefs in the math and sports domains than girls. Girls should hold increasingly more positive competence beliefs and values than boys do in reading and instrumental music.

This study consisted of approximately 900 children from lower-middle-class to middle-class backgrounds. These children completed questionnaires, for three consecutive springs, tapping their competence beliefs and subject task values about math, reading, instrumental music and sports. Results indicated that self-esteem did not differ across cohort or gender groups and did not change over time. However competence beliefs in each activity domain decreased over time. However, boys competence beliefs were higher than girls for

math and sports, and girls were higher for reading and instrumental music. As pointed out in this study, girls seemed to doubt their ability in math during elementary school even though they outperformed boys in math during elementary school and junior high school (Linn & Hyde, 1989). Another concern noted was boys' more negative ability beliefs and values about reading. Wigfield et al. (1994) pointed out that reading difficulty during the early elementary grades is one of the strongest predictors of eventual school failure. Boys who regarded themselves as poor readers, may have underrated reading as an activity. This lack of reading interest may place them at higher risk for later school failure.

Study 2 measured longitudinal change across the transition to middle school in adolescents' achievement related beliefs and general self-esteem. Thus, this study predicted that early adolescents' self-esteem should decrease immediately following the transition to junior high due to students adjusting to the school change and development of new social networks and roles. Self-esteem levels should increase throughout the school year once adjustment is made for the new social and network roles. It was predicted that adolescents' competence beliefs and valuing of different academic activities should moderately change immediately after the passage to junior high school. Students from 12 school districts in low-to middle-income communities participated. Approximately 1,850 adolescents completed questionnaires at four waves: twice in the sixth grade, twice in the seventh grade. Adolescents completed questionnaires measuring self-esteem, their beliefs, attitudes and values regarding math, English and social activities.

Results demonstrated a drop in adolescent's self-esteem during the transition to junior high but a rise in self-esteem by the seventh grade. Adolescents' math, English, social activities, and sports competence beliefs become more negative immediately following the transition to junior high. Their math and English competence beliefs continued to deteriorate through the seventh-grade year. However, sports and social competence beliefs rose during the seventh-grade year. This study also reported that adolescents exhibited a much greater interest in nonacademic activities than academic ones. Boys reported higher self-esteem than did girls at all four waves. Thus, this study did not support that girls' self-esteem is lower during the transition from elementary to junior high as found in other studies. Boys had higher competence beliefs for sports and math than did girls. Girls had higher competence beliefs for English. These gender differences in competence beliefs confirm and extend previous cross-sectional work (for example, see Eccles, Adler, Futterman, Goff, Koczala, Meece, & Midgley, 1983; Marsh, 1989; Wigfield, 1984).

What explains the deterioration in adolescents' competence beliefs and valuing of academic activities? It may be that younger children are more enthusiastic in their competence beliefs than are older adolescents. Adolescents may have more realistic evaluative feedback about different tasks from teacher, and are better able to evaluate their relative academic standing. Also, as pointed out earlier, evaluative practices are more strict in junior high and could contribute to the declines in academic competence beliefs that were found in Study 2.

Social-self image. Roberts and Petersen (1992) conducted a study on the relationship between academic achievement and social self-image. Specifically, this study examined the effects of values orientation, gender, grade in school, and academic domain on the relationship between academic achievement and social self-image. Adolescents in the sixth through eighth grade participated. Social-self image was assessed by the Self-Image Questionnaire for Young Adolescents (SIQYA). Academic achievement was assessed with final GPAs in mathematics, science, literature, language arts, and social studies, obtained from school records at each school year end.

For this study, adolescent social self-image reflected how they perceived themselves socially and whether they felt accepted and valued by other people. In early adolescence, both parent and peer influences are predominant determinants of self-image formation, with the balance moving from parents to peers (Roberts et al., 1992). This research suggests that to understand how academic achievement influences social self-image the adolescent should be considered within the context of the peer group. Adolescent values were assessed in one of three value domains: academics, popularity, or success depending on the dominate value within the peer group. Peer influences may either encourage or discourage academic success depending on the dominant value within the peer group (Roberts et al., 1992). Peers who place a high value on academics influence each other to do well in school (Brown, Lohr, & McClahahan, 1986). It would be expected that for adolescents who were academically oriented, their academic success would lead to heightened social self-image. However, for those adolescents who placed a higher value on popularity or athletics, self-image may be boosted more by nonacademic pursuits than by academic success. Roberts et al. (1992) pointed out that in previous research adolescents who were socially oriented spent more time socializing and this was linked with lower school performance. Goodland (1994) suggested the same may hold for adolescents whose energy and time was invested in athletic pursuits - their social self-image may be raised but academic achievement may be lowered.

It could be argued that the link between academic achievement and social self-image may be further complicated by the effects of gender (Roberts et al., 1992). Simmons and Blyth (1987) suggest that higher academic achievement denotes a higher degree of conformity to adults standards, and norms regarding conformity to adult standards differ for girls and boys. These researchers reported that girls conform more to adult standards and that some boys perceive more peer pressure to deviate from adult standards. Thus, for boys who value popularity or athletics, lower achievement may occur as an indicator of independence from adult standards, and would thus be connected with rises in social self-image. By contrast, girls interested in the pursuit of popularity or athletics may be forced to make trade-offs between these areas and academics because girls probably would experience more pressure to conform to adult standards by achieving higher academics. Roberts et al. (1992) suggested that moderate levels of success in academics would be linked with the greatest gains in social self-image and that girls with high or low academic achievement would experience less improvement in social self-image.

Adolescents' grade level in school was predicted to influence the link between academic achievement and social self-image. As noted above, as youths advance in school, classrooms become more competitive and ability-focused, grading strategies become more rigorous, and teachers' performance expectations escalate. These changes are particularly marked during the move into secondary school in early adolescence. These types of evaluative changes condition students to engage in more social comparisons of their work (assignments, reports cards, etc), making them more aware of each others achievement standing in school (Reuman, 1994). Roberts et al. (1992) postulated that this greater awareness would lead to stronger links between achievement and social self-image as youth advanced through school.

Results indicated that for boys who were academically oriented, the greatest gains in social self-image were linked to relatively high achievement in science. For girls who were socially oriented, the greatest gains in social self-image were linked to average achievement in mathematics. Low GPAs in mathematics and science were not linked to larger increases in social self-image for socially-oriented boys. For boys who were athletically oriented, low GPAs in mathematics and science did not predict larger increases in social self-image. Large gains in social self-image for athletically-oriented girls were not linked to average levels of achievement in mathematics and science. However, relatively large gains in social self-image were associated with low mathematics achievement. Roberts et al. (1992) pointed out that this finding is consistent with past research that suggests nonacademic goals of extracurricular activities in school are sometimes compensatory rather than complementary to academic mission of school. Although this effect was expected among athletically-oriented boys it was not found. These researchers suggested that although boys at this age may place athletics at the top of their value heirarchy, it apparently was not an indicator of their ability and may have been more an "aspiration for the future than a present reality" (Roberts et al., 1992, p.215).

Age at transition. Fenzel (1992) explored the possibility that youth who are younger than most of their classmates face a more difficult adjustment at school. This longitudinal study was designed to address the relationship between relative age and self-esteem among early adolescents at the same grade level during the time they transition to middle school. This study suggested that being older when transitioning from elementary to middle school would afford the adolescent greater benefits with respect to higher self-esteem and academic achievement. Older adolescents would also experience lower levels of strain associated with the transition from elementary to middle school. Youths in the sixth through eighth grade participated. Student's age at the time of entrance into this study was 10 years. Measures included self-esteem, role strain, and trait anxiety. Academic performance was measured by teacher's report of over all performance as A, B, C, D, or F and from report cards. Father's education level was also collected.

Results indicated that after controlling for the effects of father's education level, the older the adolescent relative to his/her classmates, the higher their self-esteem and the less

strain they felt at school during their transition into middle school. However, GPA was not related to age past the fifth grade. In all cases, being relatively older than classmates provided adjustment benefits. It is important to note the consistent effects of age on self-esteem and role strain, but not on GPA, for the full sample and for girls in particular. However, GPA may not have been related to relative age because parents' education accounted for such a large portion of the variance in school performance (Fenzel, 1992). The affects of age on GPA were not present in any greater degree following the transition to middle school. However, it is important to note that this study did not measure relative age effects into the later years of middle school. It would appear from this study that being younger than most of one's classmates, in addition to having parents with relatively little education, predisposes youth and early adolescents to school-related difficulties. Also, the finding that relative age was related to self-esteem and school strain for girls, but not for boys, is consistent with previous research that suggests that the relative age effect may be more pronounced for boys in primary school but tends to shift to females in adolescence (Fenzel, 1992). If girls are more concerned about their looks and popularity than boys during early adolescence (Simmons et al., 1987), the younger, late maturing girls are likely to experience a self-esteem deficits and to see school as more stressful. This may be due, in part, to unfavorable comparisons they might make with their more physically mature and popular peers. One important note. This study drew from adolescent with highly educated parents, with a low divorce rate in a predominately white community. Replication of this study with more diverse data might yield somewhat different results.

Conclusion

The purpose of this discussion was to present a sampling of recent research focused on important familial, peer, school, and individual correlates of early adolescent academic achievement. It was not the intent of this paper to identify all correlates of youth academic achievement, as such an examination is beyond the domain of this review. The very nature of this task -- a summary of distinctive adolescent academic research -- does not lend itself to one unified, cohesive statement or theme. The study of academic achievement in adolescence is complex given the multitude of biological, psychological, and social changes occurring simultaneously throughout early adolescence. Research has demonstrated that youth traveling through this phase are charged with the task of interpreting or redefining their societal standing in light of these transformations. The question of adolescent achievement surrounds more than family influences, peer association, individual motivation, and school grades alone. No one factor determines adolescent achievement, and no one factor should be the measure of achievement. It is the collective influence of all of these played out in a growing and changing individual who is involved in a distinctive set of social relationships.

Several principal themes arise from this review. First, family functioning may influence academic competence most directly by several avenues: by parental demandingness, responsiveness and parental involvement, by the adolescents' restraint-related behavior, by interpersonal parental resources, by economic parental resources, by parental

emphasis on learning, and by parental educational expectations. Second, peers as agents of socialization may influence academic competence by these avenues: by specific behavioral demands placed on the adolescent, by values placed on school success and academic work, and by values placed on peer acceptance. Third, the school environment may influence academic competence most directly by several avenues: by an adolescent's confidence in their peer-related social skills, by an adolescent's teacher assessing student adjustment, by teachers' assistance in goal setting and progress concern, and by the classroom environment. Finally, an adolescent's individual characteristics may influence academic competence by several avenues: By an adolescent's general self-esteem, by an adolescent's self-concept during their transition to middle school, by the value adolescents place on academic activities, by the effects of social self-image and gender, and by the effects of relative age at the time of transition to middle school.

In sum, although academic achievement is an important part of an adolescent's passage, it is only a small portion of adolescent functioning. Adolescents can emerge from this developmental period with straight "A"s and remain dejected and socially dysfunctional. As these researchers have done in isolating apparent risk factors related to adolescent adjustment, we can assimilate a great deal about the passage through adolescence. And with attention, learn to identify risk factors that will better prepare families, educators and others to deal with these dangers. As parents and youth advocates it should be our aspiration - it is our responsibility - to continue to search for avenues offering resiliency for these adolescents.

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APPENDIX B

Measures

OVERT CONFLICT STYLE

Youth stem: When your mom and dad disagree about any of the things in Question 2 about family life, how often do they do the following in front of you (so you can see or hear)?

Call each other names
Threaten each other
Yell at each other
Insult (show disrespect for) each other
Tell each other to shut up

Parent stem: When you and your spouse (or former spouse) disagree about any of the things in Question 2 about family life, how often do either of you do the following in front of this child (so she/he can see or hear)? Please write your response in the blank.

YOUTH RESPONSE SCALE

- (1) Never
- (2) Once in a while
- (3) Fairly often
- (4) Very often

Respondents: Youth

Source: Preliminary study #1

FREQUENCY OF PARENTAL CONFLICT

Youth Stem: Moms and dads often disagree about many things in family life. How often do your parents disagree about each of these things?

Your (or one of your siblings) attending school or church functions

Your (or one of your siblings) dress or grooming

Your (or one of your siblings) physical care

Disciplining you (or one of your siblings)

Your (or one of your siblings) behavior in public or at school

Your (or one of your siblings) behavior at home

Money you (or one of your siblings) need

Parent Stem: Couples often disagree about many issues in family life. In the last 12 months how often did you and your spouse (or former spouse) disagree about each of these parts of family life in front of this child? (If you are separated or divorced, please answer these questions using the present time, not before the separation.) Please write your response to each item in the blank.

YOUTH RESPONSE SCALE:

- (1) Never
- (2) Once in a while
- (3) Fairly often
- (4) Very often

Respondents: Youth

Source: Adapted from Ahrons (1983)

FREQUENCY OF NONPARENTAL CONFLICT

Youth Stem: Moms and dads often disagree about many things in family life. How often do your parents disagree about each of these things?

Your mom's job

Your dad's job

Your mom's duties in the family

Your dad's duties in the family

Money in general

Parent Stem: Couples often disagree about many issues in family life. In the last 12 months how often did you and your spouse (or former spouse) disagree about each of these parts of family life in front of this child? (If you are separated or divorced, please answer these questions using the present time, not before the separation.) Please write your response to each item in the blank.

YOUTH RESPONSE SCALE:

- (1) Never
- (2) Once in a while
- (3) Fairly often
- (4) Very often

Respondents: Youth
Source Adapted from Ahrons (1983)

PARENTAL MONITORING

Youth Stem: How much do your parents REALLY know about...

Who your friends are?

Where you go at night?

How you spend your money?

What you do with your free time?

Where you are most afternoons after school?

Parent Stem: How well do you know...

YOUTH RESPONSE SCALE:

- (1) Doesn't know
- (2) Know a little
- (3) Know a lot

Respondent: Youth

Source: Brown, Mounts, Lamborn & Steinberg (1993)

PARENTAL HARSH DISCIPLINE

Youth Stem: My mother (father) is a person who...

Is very strict with me

Gives hard punishment

Spanks me so I will learn respect for my elders

Punishes hard, so I will remember it for a long time

Parent Stem: Think about your relationship with the child in this project. Start each sentence with "I am a person who..." Mark your response to each item in the blank.

YOUTH RESPONSE SCALE:

- (1) Not like her (him)
- (2) Somewhat like her (him)
- (3) A lot like her (him)

Respondent: Youth

Source: Adapted from the Weinberger Parenting Inventory (WPI; Weinberger, Feldman & Ford, 1989)

PARENTAL EMPHASIS ON ACHIEVEMENT

Youth Stem: How often do your parents...

Help you with your homework when asked?

Know how you're doing in school?

Watch you in sports or activities?

Parent Stem: How often do you...

YOUTH RESPONSE SCALE:

- (1) Never
- (2) Once in a while
- (3) Fairly often
- (4) Very often

Respondents: Youth

Source: Brown, Mounts, Lamborn & Steinberg (1993)

YOUTH'S INABILITY TO CONCENTRATE

Youth Stem: Below is a list of items that describe kids. For each item that describes you now or within the past 6 months, please circle the 2 if the item is **very true** or **often true** of you. Circle the 1 if the item is **somewhat** or **sometimes true** of you. If the item is **not true** of you, circle the 0.

I have trouble concentrating or paying attention

I feel confused or in a fog

I daydream a lot

I have trouble sitting still

I act without stopping to think

I am nervous or tense

I am poorly coordinated or clumsy

YOUTH RESPONSE SCALE:

(0) Not True (as far as you know)

(1) Somewhat or Sometimes True

(2) Very True or Often True

Respondent: Youth

Source: Achenbach (1991)

ACADEMIC ACHIEVEMENT

Youth Stem: What grades do you receive in school?

Mostly As

Mostly As and Bs

Mostly Bs

Mostly Bs and Cs

Mostly Cs

Mostly Cs and Dds

Mostly Dds

Mostly Dds and Fs

Mostly Fs

Respondent: Youth

Source: Adapted from Barber (1994)

YOUTH SELF-REPORT FOR AGES 11-18

For office use only
ID #

YOUR NAME _____			PARENTS' USUAL TYPE OF WORK, even if not working now (Please be specific—for example, auto mechanic, high school teacher, homemaker, laborer, lawn operator, shoe salesman, army sergeant.) FATHER'S TYPE OF WORK: _____ MOTHER'S TYPE OF WORK: _____ Please fill out this form to reflect your views, even if other people might not agree. Feel free to write additional comments beside each item and in the spaces provided on pages 2 and 4.
YOUR SEX ☐ Boy ☐ Girl	YOUR AGE _____	ETHNIC GROUP OR RACE _____	
TODAY'S DATE _____		YOUR BIRTHDATE _____	
GRADE IN SCHOOL _____		IF YOU ARE WORKING, STATE TYPE OF WORK _____	
NOT ATTENDING SCHOOL ☐			

I. Please list the sports you most like to take part in. For example: swimming, baseball, skating, skate boarding, bike riding, fishing, etc. ☐ None	Compared to others of your age, about how much time do you spend in each?	Compared to others of your age, how well do you do each one?
a. _____	Less Than Average Average More Than Average	Below Average Average Above Average
b. _____	☐ ☐ ☐	☐ ☐ ☐
c. _____	☐ ☐ ☐	☐ ☐ ☐
II. Please list your favorite hobbies, activities, and games, other than sports. For example: cards, books, piano, audio, crafts, etc. (Do not include listening to radio or TV.) ☐ None	Compared to others of your age, about how much time do you spend in each?	Compared to others of your age, how well do you do each one?
a. _____	Less Than Average Average More Than Average	Below Average Average Above Average
b. _____	☐ ☐ ☐	☐ ☐ ☐
c. _____	☐ ☐ ☐	☐ ☐ ☐
III. Please list any organizations, clubs, teams or groups you belong to. ☐ None	Compared to others of your age, how active are you in each?	
a. _____	Less Active Average More Active	
b. _____	☐ ☐ ☐	
c. _____	☐ ☐ ☐	
IV. Please list any jobs or chores you have. For example: Paper route, babysitting, making bed, working in store, etc. (Include both paid and unpaid jobs and chores.) ☐ None	Compared to others of your age, how well do you carry them out?	
a. _____	Below Average Average Above Average	
b. _____	☐ ☐ ☐	
c. _____	☐ ☐ ☐	

- V. 1. About how many close friends do you have? ☐ None ☐ 1 ☐ 2 or 3 ☐ 4 or more
(Do not include brothers & sisters)
2. About how many times a week do you do things with any friends outside of regular school hours?
(Do not include brothers & sisters) ☐ less than 1 ☐ 1 or 2 ☐ 3 or more

VI. Compared to others of your age, how well do you:

- | | Worse | About the same | Better | |
|--|--------------------------|--------------------------|--------------------------|--|
| a. Get along with your brothers & sisters? | ☐ | ☐ | ☐ | ☐ I have no brothers or sisters |
| b. Get along with other kids? | ☐ | ☐ | ☐ | |
| c. Get along with your parents? | ☐ | ☐ | ☐ | |
| d. Do things by yourself? | ☐ | ☐ | ☐ | |

VII. Performance in academic subjects. ☐ I do not go to school because _____

	Failing	Below Average	Average	Above Average
a. English or Language Arts	☐	☐	☐	☐
b. History or Social Studies	☐	☐	☐	☐
c. Arithmetic or Math	☐	☐	☐	☐
d. Science	☐	☐	☐	☐
e. _____	☐	☐	☐	☐
f. _____	☐	☐	☐	☐
g. _____	☐	☐	☐	☐

Other academic subjects - for example:
computer courses,
foreign language,
business. Do not include gym, sports,
drivers ed., etc.

Do you have any illness, physical disability, or handicap? ☐ No ☐ Yes - please describe

Please describe any concerns or problems you have about school:

Please describe any other concerns you have:

Please describe the best things about yourself:

Below is a list of items that describe kids. For each item that describes you now or within the past 6 months, please circle the 2 if the item is very true or often true of you. Circle the 1 if the item is somewhat or sometimes true of you. If the item is not true of you, circle the 0.

0 = Not True 1 = Somewhat or Sometimes True 2 = Very True or Often True

0	1	2	1. I act too young for my age	0	1	2	40. I hear sounds or voices that other people think aren't there (describe: _____)
0	1	2	2. I have an allergy (describe: _____)				
0	1	2	3. I argue a lot	0	1	2	41. I act without stopping to think
0	1	2	4. I have asthma	0	1	2	42. I would rather be alone than with others
0	1	2	5. I act like the opposite sex	0	1	2	43. I lie or cheat...
0	1	2	6. I like animals	0	1	2	44. I bite my fingernails
0	1	2	7. I brag	0	1	2	45. I am nervous or tense
0	1	2	8. I have trouble concentrating or paying attention	0	1	2	46. Parts of my body twitch or make nervous movements (describe: _____)
0	1	2	9. I can't get my mind off certain thoughts (describe: _____)				
0	1	2	10. I have trouble sitting still	0	1	2	47. I have nightmares
0	1	2	11. I'm too dependant on adults	0	1	2	48. I am not liked by other kids
0	1	2	12. I feel lonely	0	1	2	49. I can do certain things better than most kids
0	1	2	13. I feel confused or in a fog	0	1	2	50. I am too fearful or anxious
0	1	2	14. I cry a lot	0	1	2	51. I feel dizzy
0	1	2	15. I am pretty honest	0	1	2	52. I feel too guilty
0	1	2	16. I am mean to others	0	1	2	53. I eat too much
0	1	2	17. I daydream a lot	0	1	2	54. I feel overtired
0	1	2	18. I deliberately try to hurt or kill myself	0	1	2	55. I am overweight
0	1	2	19. I try to get a lot of attention				56. Physical problems without known medical cause:
0	1	2	20. I destroy my own things	0	1	2	a. Acnes or pains (not headaches)
0	1	2	21. I destroy things belonging to others	0	1	2	b. Headaches
0	1	2	22. I disobey my parents	0	1	2	c. Nausea, feel sick
0	1	2	23. I disobey at school	0	1	2	d. Problems with eyes (describe: _____)
0	1	2	24. I don't eat as well as I should				
0	1	2	25. I don't get along with other kids				
0	1	2	26. I don't feel guilty after doing something I shouldn't				
0	1	2	27. I am jealous of others	0	1	2	e. Rashes or other skin problems
0	1	2	28. I am willing to help others when they need help	0	1	2	f. Stomachaches or cramps
0	1	2	29. I am afraid of certain animals, situations, or places, other than school (describe: _____)	0	1	2	g. Vomiting, throwing up
				0	1	2	h. Other (describe: _____)
0	1	2	30. I am afraid of going to school	0	1	2	37. I physically attack people
0	1	2	31. I am afraid I might think or do something bad	0	1	2	38. I pick my skin or other parts of my body (describe: _____)
0	1	2	32. I feel that I have to be perfect				
0	1	2	33. I feel that no one loves me				
0	1	2	34. I feel that others are out to get me				
0	1	2	35. I feel worthless or inferior	0	1	2	39. I can be pretty friendly
0	1	2	36. I accidentally get hurt a lot	0	1	2	40. I like to try new things
0	1	2	37. I get in many fights	0	1	2	41. My school work is poor
0	1	2	38. I get teased a lot	0	1	2	42. I am poorly coordinated or clumsy
0	1	2	39. I have trouble with kids who are different	0	1	2	43. I would rather be with older

0 = Not true 1 = Somewhat or sometimes true 2 = Very true or often true

0	1	2	64. I would rather be with younger kids than with kids my own age	0	1	2	85. I have thoughts that other people would think are strange (describe: _____)
0	1	2	65. I refuse to talk				_____
0	1	2	66. I repeat certain actions over and over (describe: _____)				_____
			_____				_____
			_____				_____
0	1	2	67. I run away from home	0	1	2	86. I am stubborn
0	1	2	68. I scream a lot	0	1	2	87. My moods or feelings change suddenly
0	1	2	69. I am secretive or keep things to myself	0	1	2	88. I enjoy being with other people
0	1	2	70. I see things that other people think aren't there (describe: _____)	0	1	2	89. I am suspicious
			_____	0	1	2	90. I swear or use dirty language
			_____	0	1	2	91. I think about killing myself
			_____	0	1	2	92. I like to make others laugh
0	1	2	71. I am self-conscious or easily embarrassed	0	1	2	93. I talk too much
0	1	2	72. I set fires	0	1	2	94. I tease others a lot
0	1	2	73. I can work well with my hands	0	1	2	95. I have a hot temper
0	1	2	74. I show off or clown	0	1	2	96. I think about sex too much
0	1	2	75. I am shy	0	1	2	97. I threaten to hurt people
0	1	2	76. I sleep less than most kids	0	1	2	98. I like to help others
0	1	2	77. I sleep more than most kids during day and/or night (describe: _____)	0	1	2	99. I am too concerned about being neat or clean
			_____	0	1	2	100. I have trouble sleeping (describe: _____)
			_____				_____
0	1	2	78. I have a good imagination				_____
0	1	2	79. I have a speech problem (describe: _____)	0	1	2	101. I cut classes or skip school
			_____	0	1	2	102. I don't have much energy
			_____	0	1	2	103. I am unhappy, sad, or depressed
			_____	0	1	2	104. I am louder than other kids
0	1	2	80. I stand up for my rights	0	1	2	105. I use alcohol or drugs for nonmedical purposes (describe: _____)
0	1	2	81. I steal at home				_____
0	1	2	82. I steal from places other than home				_____
0	1	2	83. I store up things I don't need (describe: _____)				_____
			_____	0	1	2	106. I try to be fair to others
			_____	0	1	2	107. I enjoy a good joke
0	1	2	84. I do things other people think are strange (describe: _____)	0	1	2	108. I like to take life easy
			_____	0	1	2	109. I try to help other people when I can
			_____	0	1	2	110. I wish I were of the opposite sex
			_____	0	1	2	111. I keep from getting involved with others
			_____	0	1	2	112. I worry a lot

Please write down anything else that describes your feelings, behavior, or interests

TEACHER'S REPORT FORM

For office use only
ID #

Your answers will be used to compare the pupil with other pupils whose teachers have completed similar forms. The information from this form will also be used for comparison with other information about this pupil. Please answer as well as you can, even if you lack full information. Scores on individual items will be combined to identify general patterns of behavior. Feel free to write additional comments beside each item and in the spaces provided on page 2.

PUPIL'S NAME			PARENTS' USUAL TYPE OF WORK, even if not working now. (Please be as specific as you can—for example, auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant.)	
PUPIL'S SEX ☐ Boy ☐ Girl	PUPIL'S AGE	ETHNIC GROUP OR RACE	FATHER'S TYPE OF WORK:	MOTHER'S TYPE OF WORK:
TODAY'S DATE Mo. _____ Date _____ Yr. _____		PUPIL'S BIRTHDATE (if known) Mo. _____ Date _____ Yr. _____	THIS FORM FILLED OUT BY: ☐ Teacher (name) _____ ☐ Counselor (name) _____ ☐ Other (specify) name: _____	
GRADE IN SCHOOL	NAME OF SCHOOL			

I. How long have you known this pupil? _____ months

II. How well do you know him/her? 1. ☐ Not Well 2. ☐ Moderately Well 3. ☐ Very Well

III. How much time does he/she spend in your class per week?

IV. What kind of class is it? (Please be specific, e.g., regular 5th grade, 7th grade math, etc.)

V. Has he/she ever been referred for special class placement, services, or tutoring?
☐ Don't Know 0. ☐ No 1. ☐ Yes—what kind and when?

VI. Has he/she ever repeated a grade?
☐ Don't Know 0. ☐ No 1. ☐ Yes—grade and reason

VII. Current school performance—list academic subjects and check column that indicates pupil's performance:

Academic subject:	1. Far below grade	2. Somewhat below grade	3. At grade level	4. Somewhat above grade	5. Far above grade
1. <u>Reading, English or Language Arts</u>	☐	☐	☐	☐	☐
2. <u>History or Social Studies</u>	☐	☐	☐	☐	☐
3. <u>Arithmetic or Math</u>	☐	☐	☐	☐	☐
4. <u>Science</u>	☐	☐	☐	☐	☐
5. _____	☐	☐	☐	☐	☐
6. _____	☐	☐	☐	☐	☐

VIII. Compared to typical pupils of the same age:	1. Much less	2. Somewhat less	3. Slightly less	4. About average	5. Slightly more	6. Somewhat more	7. Much more
1. How hard is he/she working?	☐	☐	☐	☐	☐	☐	☐
2. How appropriately is he/she behaving?	☐	☐	☐	☐	☐	☐	☐
3. How much is he/she learning?	☐	☐	☐	☐	☐	☐	☐
4. How happy is he/she?	☐	☐	☐	☐	☐	☐	☐

IX. Most recent achievement test scores (if available):

Name of test	Subject	Date	Percentile or grade level obtained

X. IQ, readiness, or aptitude tests (if available):

Name of test	Date	IQ or equivalent scores

Does this pupil have any illness, physical disability, or mental handicap? ☐ No ☐ Yes — please describe

What concerns you most about this pupil?

Please describe the best things about this pupil:

Please feel free to write any comments about this pupil's work, behavior, or potential, using extra pages if necessary.

Below is a list of items that describe pupils. For each item that describes the pupil now or within the past 2 months, please circle the 2 if the item is very true or often true of the pupil, circle the 1 if the item is somewhat or sometimes true of the pupil, if the item is not true of the pupil, circle the 0. Please answer all items as well as you can, even if some do not seem to apply to this pupil.

0 = Not True (as far as you know)

1 = Somewhat or Sometimes True

2 = Very True or Often True

0	1	2	1. Acts too young for his/her age	0	1	2	31. Feels he/she might think or do something bad
0	1	2	2. Hums or makes other odd noises in class	0	1	2	32. Feels he/she has to be perfect
0	1	2	3. Argues a lot	0	1	2	33. Feels or complains that no one loves him/her
0	1	2	4. Fails to finish things he/she starts	0	1	2	34. Feels others are out to get him/her
0	1	2	5. Behaves like opposite sex	0	1	2	35. Feels worthless or inferior
0	1	2	6. Defiant, talks back to staff	0	1	2	36. Gets hurt a lot, accident-prone
0	1	2	7. Bragging, boasting	0	1	2	37. Gets in many fights
0	1	2	8. Can't concentrate, can't pay attention for long	0	1	2	38. Gets teased a lot
0	1	2	9. Can't get his/her mind off certain thoughts; obsessions (describe: _____)	0	1	2	39. Hangs around with others who get in trouble
				0	1	2	40. Hears sounds or voices that aren't there (describe: _____)
0	1	2	10. Can't sit still, restless, or hyperactive	0	1	2	41. Impulsive or acts without thinking
0	1	2	11. Clings to adults or too dependent	0	1	2	42. Would rather be alone than with others
0	1	2	12. Complaints of loneliness	0	1	2	43. Lying or cheating
0	1	2	13. Confused or seems to be in a fog	0	1	2	44. Bites fingernails
0	1	2	14. Cries a lot	0	1	2	45. Nervous, high-strung, or tense
0	1	2	15. Fidgets	0	1	2	46. Nervous movements or twitching (describe: _____)
0	1	2	16. Cruelty, bullying, or meanness to others				
0	1	2	17. Daydreams or gets lost in his/her thoughts	0	1	2	47. Overconforms to rules
0	1	2	18. Deliberately harms self or attempts suicide	0	1	2	48. Not liked by other pupils
0	1	2	19. Demands a lot of attention	0	1	2	49. Has difficulty learning
0	1	2	20. Destroys his/her own things	0	1	2	50. Too fearful or anxious
0	1	2	21. Destroys property belonging to others	0	1	2	51. Feels dizzy
0	1	2	22. Difficulty following directions	0	1	2	52. Feels too guilty
0	1	2	23. Disobedient at school	0	1	2	53. Talks out of turn
0	1	2	24. Disturbs other pupils	0	1	2	54. Overtired
0	1	2	25. Doesn't get along with other pupils	0	1	2	55. Overweight
0	1	2	26. Doesn't seem to feel guilty after misbehaving	0	1	2	56. Physical problems without known medical cause:
0	1	2	27. Easily jealous	0	1	2	a. Aches or pains (not headaches)
0	1	2	28. Eats or drinks things that are not food - don't include sweets (describe: _____)	0	1	2	b. Headaches
				0	1	2	c. Nausea, feels sick
				0	1	2	d. Problems with eyes (describe: _____)
0	1	2	29. Fears certain animals, situations, or places other than school (describe: _____)				
				0	1	2	e. Rashes or other skin problems
0	1	2	30. Fears going to school	0	1	2	f. Stomachaches or cramps
				0	1	2	g. Vomiting, throwing up
				0	1	2	h. Other (describe: _____)

0 = Not True (as far as you know)			1 = Somewhat or Sometimes True	2 = Very True or Often True			
0	1	2	57. Physically attacks people	0	1	2	84. Strange behavior (describe: _____)
0	1	2	58. Picks nose, skin, or other parts of body (describe: _____)	0	1	2	85. Strange ideas (describe: _____)
0	1	2	59. Sleeps in class	0	1	2	86. Stubborn, sullen, or imitable
0	1	2	60. Apathetic or unmotivated	0	1	2	87. Sudden changes in mood or feelings
0	1	2	61. Poor school work	0	1	2	88. Sulks a lot
0	1	2	62. Poorly coordinated or clumsy	0	1	2	89. Suspicious
0	1	2	63. Prefers being with older children or youths	0	1	2	90. Swearing or obscene language
0	1	2	64. Prefers being with younger children	0	1	2	91. Talks about killing self
0	1	2	65. Refuses to talk	0	1	2	92. Underachieving, not working up to potential
0	1	2	66. Reveals certain acts over and over; compulsions (describe: _____)	0	1	2	93. Talks too much
0	1	2	67. Disrupts class discipline	0	1	2	94. Teases a lot
0	1	2	68. Screams a lot	0	1	2	95. Temper tantrums or hot temper
0	1	2	69. Secretive, keeps things to self	0	1	2	96. Seems preoccupied with sex
0	1	2	70. Sees things that aren't there (describe: _____)	0	1	2	97. Threatens people
0	1	2	71. Self-conscious or easily embarrassed	0	1	2	98. Tardy to school or class
0	1	2	72. Messy work	0	1	2	99. Too concerned with neatness or cleanliness
0	1	2	73. Behaves irresponsibly (describe: _____)	0	1	2	100. Fails to carry out assigned tasks
0	1	2	74. Showing off or clowning	0	1	2	101. Truancy or unexplained absence
0	1	2	75. Shy or timid	0	1	2	102. Underactive, slow moving, or lacks energy
0	1	2	76. Explosive and unpredictable behavior	0	1	2	103. Unhappy, sad, or depressed
0	1	2	77. Demands must be met immediately, easily frustrated	0	1	2	104. Unusually loud
0	1	2	78. Inattentive, easily distracted	0	1	2	105. Uses alcohol or drugs for nonmedical purposes (describe: _____)
0	1	2	79. Speech problem (describe: _____)	0	1	2	106. Overly anxious to please
0	1	2	80. Stares blankly	0	1	2	107. Dislikes school
0	1	2	81. Feels hurt when criticized	0	1	2	108. Is afraid of making mistakes
0	1	2	82. Steals	0	1	2	109. Whining
0	1	2	83. Stores up things he/she doesn't need (describe: _____)	0	1	2	110. Unclean personal appearance
				0	1	2	111. Withdrawn, doesn't get involved with others
				0	1	2	112. Worries
							113. Please write in any problems the pupil has that were not listed above:
				0	1	2	_____
				0	1	2	_____
				0	1	2	_____

CHILD BEHAVIOR CHECKLIST FOR AGES 4-18

For office use only
ID #

CHILD'S NAME _____			PARENTS' USUAL TYPE OF WORK, even if not working now. (Please be specific - for example, auto mechanic, high school teacher, homemaker, laborer, letter operator, shoe salesman, army sergeant.) FATHER'S TYPE OF WORK: _____ MOTHER'S TYPE OF WORK: _____	
SEX ☐ Boy ☐ Girl	AGE _____	ETHNIC GROUP OR RACE _____		
TODAY'S DATE Mo. _____ Date _____ Yr. _____		CHILD'S BIRTHDATE Mo. _____ Date _____ Yr. _____		
GRADE IN SCHOOL _____	Please fill out this form to reflect your view of the child's behavior even if other people might not agree. Feel free to write additional comments beside each item and in the spaces provided on page 2.			
NOT ATTENDING SCHOOL ☐	THIS FORM FILLED OUT BY: ☐ Mother (name: _____) ☐ Father (name: _____) ☐ Other - name & relationship to child: _____			

I. Please list the sports your child most likes to take part in. For example: swimming, baseball, skating, skate boarding, bike riding, fishing, etc. ☐ None	Compared to others of the same age, about how much time does he/she spend in each?	Compared to others of the same age, how well does he/she do each one?
	Don't Know Less Than Average Average More Than Average	Don't Know Below Average Average Above Average
1. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
2. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
3. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
II. Please list your child's favorite hobbies, activities, and games, other than sports. For example: stamps, dolls, books, piano, crafts, cars, singing, etc. (Do not include listening to radio or TV.) ☐ None	Compared to others of the same age, about how much time does he/she spend in each?	Compared to others of the same age, how well does he/she do each one?
	Don't Know Less Than Average Average More Than Average	Don't Know Below Average Average Above Average
1. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
2. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
3. _____	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
III. Please list any organizations, clubs, teams, or groups your child belongs to. ☐ None	Compared to others of the same age, how active is he/she in each?	
	Don't Know Less Active Average More Active	
1. _____	☐ ☐ ☐ ☐	
2. _____	☐ ☐ ☐ ☐	
3. _____	☐ ☐ ☐ ☐	
IV. Please list any jobs or chores your child has. For example: paper route, babysitting, making bed, working in store, etc. (Include both paid and unpaid jobs and chores.) ☐ None	Compared to others of the same age, how well does he/she carry them out?	
	Don't Know Below Average Average Above Average	
1. _____	☐ ☐ ☐ ☐	
2. _____	☐ ☐ ☐ ☐	
3. _____	☐ ☐ ☐ ☐	

- V. 1. About how many close friends does your child have? ☐ None ☐ 1 ☐ 2 or 3 ☐ 4 or more
(Do not include brothers & sisters)
2. About how many times a week does your child do things with any friends outside of regular school hours?
(Do not include brothers & sisters) ☐ Less than 1 ☐ 1 or 2 ☐ 3 or more

VI. Compared to others of his/her age, how well does your child:

- | | Worse | About Average | Better | |
|---|--------------------------|--------------------------|--------------------------|---|
| a. Get along with his/her brothers & sisters? | ☐ | ☐ | ☐ | ☐ Has no brothers or sisters |
| b. Get along with other kids? | ☐ | ☐ | ☐ | |
| c. Behave with his/her parents? | ☐ | ☐ | ☐ | |
| d. Play and work by himself/herself? | ☐ | ☐ | ☐ | |

VII. 1. For ages 8 and older—performance in academic subjects. If child is not being taught, please give reason _____

- | | Failing | Below average | Average | Above average |
|---------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Reading, English, or Language Arts | ☐ | ☐ | ☐ | ☐ |
| b. History or Social Studies | ☐ | ☐ | ☐ | ☐ |
| c. Arithmetic or Math | ☐ | ☐ | ☐ | ☐ |
| d. Science | ☐ | ☐ | ☐ | ☐ |
| e. _____ | ☐ | ☐ | ☐ | ☐ |
| f. _____ | ☐ | ☐ | ☐ | ☐ |
| g. _____ | ☐ | ☐ | ☐ | ☐ |
- Other academic subjects—for example: computer courses, foreign language, business. Do not include gym, shop, driver's ed., etc.

2. Is your child in a special class or special school? ☐ No ☐ Yes—what kind of class or school?

3. Has your child repeated a grade? ☐ No ☐ Yes—grade and reason

4. Has your child had any academic or other problems in school? ☐ No ☐ Yes—please describe

When did these problems start?

Have these problems ended? ☐ No ☐ Yes—when?

Does your child have any illness, physical disability, or mental handicap? ☐ No ☐ Yes—please describe

What concerns you most about your child?

Please describe the best things about your child:

Below is a list of items that describe children and youth. For each item that describes your child now or within the past 6 months, please circle the 2 if the item is very true or often true of your child. Circle the 1 if the item is somewhat or sometimes true of your child. If the item is not true of your child, circle the 0. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not True (as far as you know)

1 = Somewhat or Sometimes True

2 = Very True or Often True

0 1 2	1.	Acts too young for his/her age	0 1 2	31.	Fears he/she might think or do something bad
0 1 2	2.	Allergy (describe): _____	0 1 2	32.	Feels he/she has to be perfect
		_____	0 1 2	33.	Feels or complains that no one loves him/her
0 1 2	3.	Argues a lot	0 1 2	34.	Feels others are out to get him/her
0 1 2	4.	Asthma	0 1 2	35.	Feels worthless or inferior
0 1 2	5.	Behaves like opposite sex	0 1 2	36.	Gets hurt a lot, accident-prone
0 1 2	6.	Bowel movements outside toilet	0 1 2	37.	Gets in many fights
0 1 2	7.	Bragging, boasting	0 1 2	38.	Gets teased a lot
0 1 2	8.	Can't concentrate, can't pay attention for long	0 1 2	39.	Hangs around with others who get in trouble
0 1 2	9.	Can't get his/her mind off certain thoughts; obsessions (describe): _____	0 1 2	40.	Hears sounds or voices that aren't there (describe): _____
0 1 2	10.	Can't sit still, restless, or hyperactive	0 1 2	41.	Impulsive or acts without thinking
0 1 2	11.	Clinging to adults or too dependent	0 1 2	42.	Would rather be alone than with others
0 1 2	12.	Complains of loneliness	0 1 2	43.	Lying or cheating
0 1 2	13.	Confused or seems to be in a fog	0 1 2	44.	Bites fingernails
0 1 2	14.	Cries a lot	0 1 2	45.	Nervous, high-strung, or tense
0 1 2	15.	Cruel to animals	0 1 2	46.	Nervous movements or twitching (describe): _____
0 1 2	16.	Cruelty, bullying, or meanness to others			_____
0 1 2	17.	Daydreams or gets lost in his/her thoughts	0 1 2	47.	Nightmares
0 1 2	18.	Deliberately harms self or attempts suicide	0 1 2	48.	Not liked by other kids
0 1 2	19.	Demands a lot of attention	0 1 2	49.	Constipated, doesn't move bowels
0 1 2	20.	Destroys his/her own things	0 1 2	50.	Too fearful or anxious
0 1 2	21.	Destroys things belonging to his/her family or others	0 1 2	51.	Feels dizzy
0 1 2	22.	Disobedient at home	0 1 2	52.	Feels too guilty
0 1 2	23.	Disobedient at school	0 1 2	53.	Overeating
0 1 2	24.	Doesn't eat well	0 1 2	54.	Overtired
0 1 2	25.	Doesn't get along with other kids	0 1 2	55.	Overweight
0 1 2	26.	Doesn't seem to feel guilty after misbehaving			56. Physical problems without known medical cause:
0 1 2	27.	Easily jealous	0 1 2	a.	Aches or pains (not headaches)
0 1 2	28.	Eats or drinks things that are not food -- don't include sweets (describe): _____	0 1 2	b.	Headaches
		_____	0 1 2	c.	Nausea, feels sick
		_____	0 1 2	d.	Problems with eyes (describe): _____
0 1 2	29.	Fears certain animals, situations, or places, other than school (describe): _____	0 1 2	e.	Rashes or other skin problems
		_____	0 1 2	f.	Stomachaches or cramps
0 1 2	30.	Fears going to school	0 1 2	g.	Vomiting, throwing up
		_____	0 1 2	h.	Other (describe): _____
		_____			_____

0 = Not True (as far as you know)			1 = Somewhat or Sometimes True			2 = Very True or Often True		
0	1	2	57.	Physically attacks people		0	1	2
0	1	2	58.	Picks nose, skin, or other parts of body (describe): _____		0	1	2
0	1	2	59.	Plays with own sex parts in public		0	1	2
0	1	2	60.	Plays with own sex parts too much		0	1	2
0	1	2	61.	Poor school work		0	1	2
0	1	2	62.	Poorly coordinated or clumsy		0	1	2
0	1	2	63.	Prefers being with older kids		0	1	2
0	1	2	64.	Prefers being with younger kids		0	1	2
0	1	2	65.	Refuses to talk		0	1	2
0	1	2	66.	Repeats certain acts over and over; compulsions (describe): _____		0	1	2
0	1	2	67.	Runs away from home		0	1	2
0	1	2	68.	Screams a lot		0	1	2
0	1	2	69.	Secretive, keeps things to self		0	1	2
0	1	2	70.	Sees things that aren't there (describe): _____		0	1	2
0	1	2	71.	Self-conscious or easily embarrassed		0	1	2
0	1	2	72.	Sets fires		0	1	2
0	1	2	73.	Sexual problems (describe): _____		0	1	2
0	1	2	74.	Showing off or clowning		0	1	2
0	1	2	75.	Shy or timid		0	1	2
0	1	2	76.	Sleeps less than most kids		0	1	2
0	1	2	77.	Sleeps more than most kids during day and/or night (describe): _____		0	1	2
0	1	2	78.	Smears or plays with bowel movements		0	1	2
0	1	2	79.	Speech problem (describe): _____		0	1	2
0	1	2	80.	Stares blankly		0	1	2
0	1	2	81.	Steals at home		0	1	2
0	1	2	82.	Steals outside the home		0	1	2
0	1	2	83.	Stores up things he/she doesn't need (describe): _____		0	1	2
0	1	2	84.	Strange behavior (describe): _____		0	1	2
0	1	2	85.	Strange ideas (describe): _____		0	1	2
0	1	2	86.	Stubborn, sullen, or irritable		0	1	2
0	1	2	87.	Sudden changes in mood or feelings		0	1	2
0	1	2	88.	Sulks a lot		0	1	2
0	1	2	89.	Suspicious		0	1	2
0	1	2	90.	Swearing or obscene language		0	1	2
0	1	2	91.	Talks about killing self		0	1	2
0	1	2	92.	Talks or walks in sleep (describe): _____		0	1	2
0	1	2	93.	Talks too much		0	1	2
0	1	2	94.	Teases a lot		0	1	2
0	1	2	95.	Temper tantrums or hot temper		0	1	2
0	1	2	96.	Thinks about sex too much		0	1	2
0	1	2	97.	Threatens people		0	1	2
0	1	2	98.	Thumb-sucking		0	1	2
0	1	2	99.	Too concerned with neatness or cleanliness		0	1	2
0	1	2	100.	Trouble sleeping (describe): _____		0	1	2
0	1	2	101.	Truancy, skips school		0	1	2
0	1	2	102.	Underactive, slow moving, or lacks energy		0	1	2
0	1	2	103.	Unhappy, sad, or depressed		0	1	2
0	1	2	104.	Unusually loud		0	1	2
0	1	2	105.	Uses alcohol or drugs for nonmedical purposes (describe): _____		0	1	2
0	1	2	106.	Vandalism		0	1	2
0	1	2	107.	Wets self during the day		0	1	2
0	1	2	108.	Wets the bed		0	1	2
0	1	2	109.	Whining		0	1	2
0	1	2	110.	Wishes to be of opposite sex		0	1	2
0	1	2	111.	Withdrawn, doesn't get involved with others		0	1	2
0	1	2	112.	Worries		0	1	2
0	1	2	113.	Please write in any problems your child has that were not listed above:		0	1	2

PLEASE BE SURE YOU HAVE ANSWERED ALL ITEMS

(UNDERLINE ANY YOU ARE CONCERNED ABOUT)

APPENDIX C

Additional Tables

Table 1

Hierarchical Regression of Youth Reports of Frequency of Interparental Conflict Variables Predicting Youth/Teacher and Mother Reports of Youth Academic Achievement

Youth Reports of Frequencies of Interparental Conflict Variables	Mother's Report Youth Academic Achievement		Combined Report Youth Academic Achievement	
	F _Δ	R ² _Δ	F _Δ	R ² _Δ
Block 1: Youth Sex, Age Parent's Marital Status	1.74	.02	2.56	.03
Block 2: Frequency of IP Conflict-Parental Frequency of IP Conflict-Nonparental	9.51**	.06	13.46**	.09
Block 3: Mother's Harsh Discipline Parental Involvement Youth's Inability to Concentrate	1.63	.02	.88	.01

Note. N = 285. **p < .01 *p < .05.

Table 2

Hierarchical Regression of Youth Reports of Frequency of Interparental Conflict Variables Predicting Youth/Teacher and Mother Reports of Youth Academic Achievement

Youth Reports of Frequency of Interparental Conflict Variables	Mother's Report Youth Academic Achievement		Combined Report Youth Academic Achievement	
	F _Δ	R ² _Δ	F _Δ	R ² _Δ
Block 1: Youth Sex, Age Parent's Marital Status	1.74	.02	2.56	.03
Block 2: *Frequency of IP Conflict-Parental Frequency of IP Conflict-Nonparental	9.51**	.06	13.46**	.09
Block 3: Father's Harsh Discipline Parental Involvement Youth's Inability to Concentrate	1.67	.02	.97	.01

Note. N = 285. **p < .01 *p < .05.

Note. *Frequency of IP conflict-parental was the only significant variable in this block.

Table 3

Hierarchical Regression of Youth Reports of Frequency of IP Conflict-Parental Predicting Mother Reports of Youth Academic Achievement

Youth Reports of Frequency of Interparental Conflict-Parental	Mother's Report Youth Academic Achievement	
	F _Δ	R ² _Δ
Block 1: Parent's Marital Status	3.59	.01
Block 2: Frequency of IP Conflict-Parental	19.09**	.06
Block 3: Parental Involvement	4.46	.02
^b Block 3: Youth's Inability to Concentrate	3.52	.01

Note. N = 285. *These data represent the findings from two different regression analysis, ^b replaced * in the second regression analysis.

Table 4

Standardized Beta Weights for Hierarchical Regression Models Examining the Role of Mother's Harsh Discipline Parental Involvement and Youth's Inability to Concentrate

	Youth Academic Achievement	
	Mother	Youth/Teacher
Block 1:		
Youth Sex	-.04	-.02
Youth Age	-.02	.02
Parent's Marital Status	.08	.15
 *Block 2:		
Frequency of IP Conflict	-.17**	-.27**
 *Block 3:		
Overt Conflict Style	-.05	.10
 Block 4:		
Mother's Harsh Discipline	.001	-.03
Parental Involvement	.09	.09
Youth Inability to Concentrate	-.06	-.06
*Block 2:		
Overt Conflict Style	-.05**	.10
 *Block 3:		
Frequency of IP Conflict	-.17**	-.27**

Note: N = 285. *These data represent the findings from two different regression analyses only in the order of blocks 2 and 3. **p < .01 *p < .05.

Note: Beta Weights are from the final regression equation table.

Table 5

Standardized Beta Weights for Hierarchical Regression Models Examining the Role of Father's Harsh Discipline Parental Involvement and Youth's Inability to Concentrate

	Youth Academic Achievement	
	Mother	Youth/Teacher
Block 1:		
Youth Sex	-.04	-.03
Youth Age	-.02	.02
Parent's Marital Status	.08	.15
*Block 2:		
Frequency of IP Conflict	-.17**	-.27**
*Block 3:		
Overt Conflict Style	-.05	.09
Block 4:		
Father's Harsh Discipline	.01	.01
Parental Involvement	.09	.09
Youth Inability to Concentrate	-.06	-.07

*Block 2:		
Overt Conflict Style	-.05**	.09
*Block 3:		
Frequency of IP Conflict	-.17**	-.27**

Note: N = 285. *These data represent the findings from two different regression analyses only in the order of blocks 2 and 3. **p < .01 *p < .05.

Note: Beta Weights are from the final regression equation table.

VITAE

Sharon Pemberton Tittsworth was born in LaFollette, Tennessee on March 30, 1953. She graduated from Jacksboro High School in 1971. She received the degree of Bachelor of Science in December, 1986 from Tusculum College. In January of 1990, she entered the University of Tennessee, Knoxville and in May of 1996, received a Master of Science degree in Child and Family Studies.

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