

Conflict Resolution Strategies in Parent-Adolescent Disagreements

Jessica M. Solis

A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Psychology (Clinical Psychology).

Chapel Hill
2011

Approved By:

Andrea Hussong, Ph.D.

Martha Cox, Ph.D.

Deborah Jones, Ph.D.

ABSTRACT

JESSICA M. SOLIS: Conflict Resolution Strategies in Parent-Adolescent Disagreements
(Under the direction of Andrea Hussong, Ph.D.)

The current study examined conflict resolution strategies parents and adolescents use when discussing a disagreement and how these strategies relate to adolescent depression. A global, observational coding system was used to investigate the specific engaging (i.e., active listening, autonomy promoting and expressing, and relational) and disengaging (i.e., hostile, controlling, and withdrawal) strategies that 68 parent-adolescent dyads utilized during a conflict discussion. Even though correlations between convergent and divergent validity measures were low, the coding system proved highly reliable. Additionally, analyses demonstrated that parent active listening and adolescent relational behaviors were associated with lower levels of adolescent depression whereas parental withdrawal behavior was moderately related to an increase in adolescent depression. As such, it appears that it is not only what is said between parents and adolescents during a disagreement that influences adolescent depression, but it is also how that discussion is verbally and non-verbally conducted that can impact adolescent depression.

ACKNOWLEDGMENTS

This research was supported by National Institutes of Health grant R03 DA 12912-01A1. I would also like to acknowledge Dr. Hussong for her continued guidance, commitment, and support as both my mentor and Masters committee chair member, and her generosity in allowing me use of her data set. I am also very appreciative of Dr. Cox and Dr. Jones for their time and invaluable feedback as members of my Masters committee.

TABLE OF CONTENTS

LIST OF TABLES	vi
I. INTRODUCTION	1
Parent-adolescent conflict	2
Conflict resolution strategies and adolescent adjustment	4
Conflict resolution strategies	10
The current study	12
II. METHOD	14
Participants	14
Procedures	15
Measures	18
Validity scales	21
III. RESULTS	25
Rates and reliability of coded conflict resolution strategies	25
Levels of engaging vs. disengaging behaviors	28
Convergent and divergent validity of the conflict resolution strategies	28
Conflict resolution strategies and adolescent depression	29
III. DISCUSSION	31
Conflict resolution strategies	31
Psychometric properties of the observational coding system	33

Conflict resolution strategies and adolescent depression.....	35
Strengths and limitations.....	36
Implications and conclusions.....	37
TABLES	39
APPENDICES	43
REFERENCES	57

LIST OF TABLES

Table

1. Descriptive statistics for levels of adolescent depressive symptoms and engaging and disengaging behaviors within participant.....	39
2. Factor loadings for the two-factor parent solution extracted from the EFA analyses	40
3. Report of convergent validity and divergent validity within participant	41
4. Results of regression analyses conflict resolution scales predicting depression (Aim 4)	42

INTRODUCTION

Historically, adolescence was depicted as a time of “storm and stress” (Hall, 1904) and interpersonal conflict. Even though recent research no longer strongly advocates the “storm and stress” representation of adolescence (Arnett, 1999), interest in interpersonal conflict in adolescence continues. Interpersonal conflict has been operationalized in many ways, including as a state of incompatible behaviors (Shantz, 1987), disagreement (Garvey, 1984), and opposition (Hay, 1984). Studies show that, in comparisons with children, adolescents perceive their relationships as more negative (Larson & Lampman-Petratis, 1989; Furman & Buhrmester, 1989) and less close (Collins & Steinberg, 2006; Smetana, Campione-Barr, & Metzger, 2006). This may be especially true in their relationships with parents. For instance, Laursen (1995) found that adolescents engaged in disagreements most often with their mothers, followed by their siblings, friends, romantic partners, and fathers. Furthermore, adolescents reported that episodes of angry conflict were more likely to occur with family members than with their close peers.

Although more frequent and intense conflicts predict adolescent maladjustment (Branje et al, 2009; Pelton & Forehand, 2001; Tucker et al, 2003), negotiating conflict may be a component of how adolescents individuate or create autonomy from their parents (Steinberg, 2001). Thus, the impact of parent-adolescent conflict on youth development may be not only a function of how much conflict occurs but also how such conflicts are resolved (Branje et al, 2009). Unfortunately, comparatively little is known about the conflict resolution strategies employed by parents and adolescents. In the current study, I developed

an observational coding scheme to characterize these conflict resolution strategies and examine their association with adolescent depressive symptoms.

Parent-Adolescent Conflict

Conflict is often conceptualized as the overt expression of differences between two or more individuals or groups (Emery, 1992). Previous studies show that such conflicts increase with parents during adolescence (Smetana, 1991; Smetana, 2000; Laursen & Collins, 2009). Two potentially related reasons for this developmentally normative increase in parent-adolescent conflict are offered in the literature. First, one function of these conflicts in parent-adolescent relationships may be the development of adolescent autonomy. Smetana (1988, 1995) argued that adolescents' autonomy-seeking and desire to stretch the boundaries of their personal jurisdiction diverged from their parents' desire to maintain their role as authority figures and protect their children from harm. Thus, adolescents' questioning of the legitimacy of parents' authority could play a role in the more frequent conflicts over this time period (Smetana, 2000). As described by Laursen and Collins (2009), the negotiation over authority is especially prevalent during early adolescence. During this time, while parents seek to preserve their control over certain issues, adolescents struggle against them by claiming that certain matters are outside of parental jurisdiction and authority. Often, it is this enthusiasm and zeal that adolescents display for rejecting their parents' authority over certain domains that lead parents to deem this developmental period as particularly litigious (Steinberg, 2001).

Most of the disagreements between parents and teens center around everyday, mundane topics such as chores, household rules, privileges, behavior, school, and autonomy, especially during early adolescence (Collins & Laursen, 2004). The impact of such

disagreements on adjustment has examined two dimensions of conflict, frequency and intensity. In a meta-analysis examining the intensity and frequency of parent-adolescent conflict, Laursen, Coy, and Collins (1998) showed that rates of conflict were highest during early adolescence and then proceeded to decline with time in both mother-adolescent and father-adolescent dyads. At the same time, there was a slight increase in the intensity of these conflicts from early to mid-adolescence (though only reliably found in father-son dyads).

A second reason for developmental normative increases in parent-adolescent conflict draws on a growing body of literature stressing the potential impact of the individual variation of pubertal status and pubertal timing. In their meta-analysis of a small relevant number of studies, Laursen and colleagues (1998) found that more advanced pubertal status, or greater physical maturity, predicted higher conflict intensity. However, there was no associated relationship for conflict frequency. In contrast, early pubertal timing, or beginning puberty at an earlier age than one's peers, is generally associated with more intense and frequent parent-adolescent conflict for both boys and girls. Interestingly, late pubertal timing only saw an increase in the intensity and frequency of parent-adolescent conflict for sons (Laursen & Collins, 1994). Therefore, it appears that "off" pubertal timing may have a stronger influence on parent-adolescent conflict than pubertal status.

Even though a slight increase in conflict intensity is typical for early to mid-adolescence, high-intensity conflict between parents and adolescents is not typical (Arnett, 1999) and only about 5-15% of adolescents report extreme conflicts with their parents (Collins & Laursen, 2004). Outcomes associated with greater parent-adolescent conflict are far from advantageous. For example, adolescents are at greater risk for externalizing and

internalizing problems (Pelton & Forehand, 2001), lower levels of psychological well-being and school adjustment, and higher levels of substance use (Shek, 1997) when they engage in more frequent and/or more intense conflict with their parents. Tucker, McHale, and Crouter (2003) found that when reporting more frequent conflicts with their parents, adolescents were also more likely to report lower self-esteem and more risky behaviors. Although results of these studies only test one side of the transaction, they are consistent with the prediction that parent-adolescent conflicts may negatively impact adolescent outcomes.

Knowing that most parent-adolescent dyads have to deal with an increase in both frequency and intensity of conflict, it is important to consider how this conflict is managed. Parents' reactions to conflicts are linked to the quality of the parent-adolescent relationship (Allen et al., 2003; Smetana, 1996). If punitive and hostile behaviors become representative of the parent's reactions to conflict, the parent-child relationship is also likely to be influenced by hostility and anger (Brody & Ge, 2001; Conger & Ge, 1999) which may severely diminish feelings of warmth and trust within that relationship.

Conflict Resolution Strategies and Adolescent Adjustment

Perhaps one of the most salient adjustment issues posited to be associated with parent-adolescent conflict is adolescent depression (Greenberger & Chen, 1996; Jenkins, Goodness, & Buhrmester, 2002). For example, a high frequency of conflict between parents and adolescents is related to emotional maladjustment (Overbeek et al., 2007) and to higher levels of self-reported concurrent depressive symptoms during early adolescence (Greenberger & Chen, 1996; Forehand et al., 1988). Higher rates of parent-adolescent conflict are also predictive of later depression in adolescents. For instance, in a sample of over 1,000 early to mid adolescents, Lewinsohn et al. (1994) found that high levels of

conflict with parents predicted more depressive symptoms in adolescents a year later. Additionally, more intense conflicts between parents and adolescents are associated with higher levels of depressive symptoms during mid-adolescence (Ge et al., 1996). Therefore, the frequency and intensity of conflict with parents during adolescence has significant implications for youth's depression symptoms.

Other parenting behaviors also impact depression symptoms. For instance, higher levels of negative parenting behaviors (i.e., harshness, hostility, coercion, etc.) are associated with increased adolescent depressive symptoms (Hale, VanderValk, Akse, & Meeus, 2008; Spoth, Neppl, Goldberg-Lillehoj, Jung, & Ramisetty-Mikler, 2006). In particular, parental rejection, or parents' excessive criticism of or disinterest in their adolescents has been found to be strongly related with general adolescent maladjustment (Khaleque & Rohner, 2002; Steinhausen & Metzke, 2001) and depressive symptoms (Hale et al., 2008; Dallaire, Pineda, Cole, Ciesla, Jacquez, LaGrange, & Bruce, 2006). Conversely, positive parenting, or parenting that utilizes support, warmth, and openness, is strongly associated with lower levels of depression and higher self-esteem and life-satisfaction (Milevsky, Schlechter, Netter, & Keehn, 2007; Kauffman, Gaston, Santa Lucia, Salcedo, Rendina-Gobioff, & Gadd, 2000; Maccoby & Martin, 1983). These parenting behaviors reflect the quality of parent-adolescent relationships and suggest that some ways in which parents interact with their adolescents also impacts depression. These findings have rarely been considered in the context of parent-adolescent conflict, but they do suggest that how and adolescents interact within a conflict episode may be as important as the frequency and intensity of the conflict. Thus, it appears that the quality of the conflict interaction stands comparatively as influential as conflict frequency and/or intensity with regards to adolescent depression.

This conflict interaction can be comprised of a number of behaviors or strategies that are working towards achieving a resolution to the disagreement at hand. These behaviors may in turn affect adolescent depression (Branje et al., 2009). For instance, parental or adolescent behaviors that engage the adolescent (i.e., an adolescent expressing his beliefs, a parent asking questions, validation, attending to the other person when she talks, etc.) are associated with lower levels of depression (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994). Attachment theory suggests that parents facilitate adolescent autonomy by utilizing these engaging behaviors to encourage adolescents' exploration of differences from the secure base of a positive parent-adolescent relationship (Allen, Aber, & Leadbeater, 1990). Additionally, when parents utilize these engaging behaviors, adolescents are more likely to respond in kind, thereby strengthening the parent-adolescent attachment and lowering the adolescents' risk of depression (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994). Conversely, a more insecure parent-adolescent attachment may cause the adolescent to struggle between the need for autonomy and the desire to maintain a close relationship with her parent (Margolese, Markiewicz, & Doyle, 2005). For instance, an adolescent withdrawing from a conflict discussion may maintain a positive attachment with her mother, but her mother's resulting use of domineering conflict resolution strategies may diminish the adolescent's opportunity to gain autonomy (Kobak et al, 1993). The continual use of these disengaging behaviors of withdrawal and control will then lead to poor parent-adolescent communication which can result in adolescent sadness, anger, and ultimately, depression (Kobak et al., 1991). Consistent with attachment theory, these results speak to the idea that depressive symptoms may be the product of internalizing relationship models that do not allow independent expressions of behavior. This lack of freedom makes it difficult to move

past these internalized relationships leading to the ongoing symptoms of depression (Bowlby, 1980).

However, not much is known about the relationship between conflict resolution strategies in parent-adolescent relationships and adolescent depression. Although not specifically assessing depression, previous literature has found that adolescents who engage in conflict resolution strategies such as attack behaviors and displays of anger during episodes of conflict with their parents are more likely to evidence externalizing (Jaffee & D’Zurilla, 2003) and internalizing problems (Rubenstein & Feldman, 1993). Conversely, adolescents who use more positive problem solving skills (Tucker et al., 2003) and compromise behaviors (Rubenstein & Feldman, 1993) are less likely to have externalizing and internalizing problems.

Gender may also influence the types of conflict resolution strategies utilized by an adolescent. While some studies have found no gender differences in the utilization of conflict resolution strategies by adolescents (Van Doorn, Branje, & Meeus, 2011), others have found some support for a gender effect. For example, adolescents boys are more likely than girls to display withdrawal (Smetana, 1991) and angry, attack behaviors (Rubenstein & Feldman, 1993) during conflicts with their parents. In contrast, adolescent girls are more likely to engage in compromise behaviors (Smetana, 1991) and to maintain a positive emotional relationship via tone of voice and inquiry of feelings (Lundell et al., 2008) with their parents during conflicts (Smetana, 1991). Therefore, it appears that while adolescent boys are more likely to either angrily engage or completely withdraw during conflict interactions with their parents, adolescent girls are more likely to try and establish and/or

maintain a positive relationship with their parents by asking them questions and presenting themselves as willing listeners.

In one study of conflict resolution outcomes and adolescent depression, Tucker et al. (2003) measured conflict resolution using an adaptation of Kurdek's (1994) Ineffective Arguing Inventory among 185 adolescents in the cross-sectional survey phase of a short-term longitudinal design. In this case, "conflict resolution effectiveness" characterized the outcome of an argument (i.e., "Arguments end in frustrating stalemates; arguments are left hanging and unresolved; etc"). Results indicated that attaining a mutual conclusion to a mother-adolescent disagreement (i.e., higher levels of conflict resolution effectiveness) led to lower levels of adolescent depression. When they tested this result with a conflict frequency interaction, they found a significant interaction between mother-adolescent conflict frequency and conflict conclusions predicting adolescent depression. Surprisingly, lower levels of mother-adolescent conflict were associated with higher levels of adolescent depression only when there was more "effective" conflict resolution. These findings could indicate that resolution of a conflict, in addition to its frequency or intensity, may also be significant for adolescent depression. Taking these results as an example, adolescents may be especially sensitive to the process of conflict resolution, or the strategies used during a conflict with their mothers, because adolescents typically have a closer relationship with their mothers than with other members of their families (Collins & Russell, 1991; Buhrmester, 1992). Additionally, given the personal nature (i.e., peers, clothing choices, etc.) of the conflict discussion between mothers and adolescents (Ellis-Schwabe & Thornburg, 1986), difficulties in resolving a conflict may have an impact on adolescent adjustment. It is also important to mention that Tucker et al. did not distinguish between the processes and

outcomes of conflict resolution. Though they described the effectiveness of conflict resolution as a process, it clearly only measured the outcome, or conclusion, of the conflict. Therefore, the measurement of the conflict resolution strategies was embedded with the outcomes which make the determination of each variable's unique contributions difficult.

Like most studies of conflict resolution strategies, Tucker et al.'s findings were attained through adolescent self-report measures. Such measures suffer from several disadvantages. First, self-report measures can be influenced by the respondents' own interpretations of the questions or by situational factors such as current mood or expectations (Richters, 1992; Eddy, Dishion, & Stoolmiller, 1998). Self-reports assume they are attaining nomothetic, or population, measurement of a construct, but in actuality they are susceptible to respondents' potential idiographic mindsets that may influence their responses. Second, when constructs such as conflict resolution strategies and adjustment outcomes are measured in the same way (i.e., via self-reports), shared method variance may bias results of predicted outcomes (Spector, 1987).

Gardner (2000) argued that observational data allow researchers to avoid these pitfalls associated with participant self-reports. For instance, rather than relying on subjects' individual interpretations of constructs like conflict, definitions may instead be consistently and reliably applied by the researcher within the coding process. These techniques allow an observer to directly examine the elements, both core and supplementary, of a social interaction that may be missed in a self-report measure by an otherwise engaged participant. While offering a snapshot of behaviors in time, observational data also will provide evidence of the characteristics of the dyadic interaction that are separate from individual style or personality.

A few studies have employed an observational coding system for parent-adolescent conflict (Branje, 2008; Eisenberg et al., 2008). However, all of these studies examined the micro-analytic behaviors that constitute the process of conflict resolution and only one distinguished between the process and outcomes of conflict resolution (Eisenberg et al., 2008). Global or macrolevel ratings allow an observer to measure a behavior over a continuous period of time (Aspland & Gardner, 2003) thereby focusing on the quality of the data rather than the quantity. Additionally, from a practical perspective, they are economical, efficient, and not as time-intensive as their micro-analytic counterparts. To my knowledge, there have been no published studies that have developed and used a macro observation coding scheme assessing the conflict resolution process in parent-adolescent relationships. Moreover, no studies have looked at the utility of conflict resolution strategies in parent-adolescent relationships in predicting adolescent depression.

Conflict Resolution Strategies

Past studies have defined conflict resolution as both a process (i.e., what happens during a parent-child exchange) and an outcome (i.e., the state of the disagreement when such exchanges end). For example, Vuchinich (1987) defined compromise as one of four types of conflict resolution consisting of both the concessions made by each party of the dispute to the other (i.e., a process) and the end of the discussion of the issue (i.e., an outcome). Other researchers, like Inger (1991), focus on the specific behavioral strategies that comprise the process of conflict resolution (e.g., active listening, positive emotion expressing, etc.). And still others use the terms conflict resolution (as a process and an outcome) and conflict resolution strategies (typically a process) interchangeably (Branje et al., 2009; Tucker et al., 2003). By confounding indications of the process and outcome of

conflict resolution, previous studies do not permit tests of how specific behaviors that comprise conflict resolution strategies contribute to different conflict resolution outcomes.

To address this limitation, I define conflict resolution strategies as a process rather than an outcome. These conflict resolution strategies are perhaps most fully conceptualized in the intervention literature relating to both peers and parental conflict. Drawing on Inger's (1991) conflict resolution intervention programs being used with peers in American schools, conflict resolution strategies are those behavioral approaches to interpersonal conflict that help people with opposing positions work together to end a disagreement involving the overt expression of differences. The parent-adolescent interaction literature also recognizes the importance of conflict resolution in parent-adolescent relationships. Accumulated evidence indicates that an optimal outcome for parent-adolescent conflict is for the adolescent to achieve autonomy while still maintaining relatedness with the parent (Smetana, 1995; Allen et al, 1994; Allen et al., 1996). In order to achieve this balance, Allen et al. (1996) identified behaviors that either exhibited or inhibited the use of autonomy and relatedness within parent-adolescent conflicts.

The exhibition of autonomy and relatedness was seen as the discussion of reasons behind disagreements, validation of the other person's position, and paying attention to the other person when he or she is talking without overpersonalizing the disagreement (Allen et al., 1994; Allen et al., 1996). Since these behaviors are "engaging" the parent and adolescent in the conflict discussion, I posit that "engaging" behaviors are active listening approaches that keep the discussion focused on the issue or topic of the conflict (e.g., dividing up household chores) but also avoid making personal characteristics of the participants (e.g., "You are lazy") the focus of discussion. In particular, I drew on the aforementioned

exhibiting behaviors of autonomy and relatedness and examined three forms of engaging conflict resolution strategies that included autonomy promoting and expressing, active listening, and relational behaviors. Using active listening as an example, validation is an active listening statement in which even though the speaker does not agree with the other person's statement, he or she still acknowledges the genuineness of the feeling associated with the statement, and the other person's innate right to say and or feel that way (Allen et al., 1994; Allen et al., 1996; Robin & Foster, 2003). This validation statement allows for the distinction between the person and his or her behavior.

Conversely, the inhibition of autonomy and relatedness was the overpersonalization of a disagreement, forcefully pressuring the other person to cede to your position, and expressing hostility towards the other person. Since these behaviors could lead either the parent and/or adolescent to feel "disengaged" from the conflict discussion, I drew on the inhibiting behaviors and examined three examples of disengaging behaviors: withdrawal, controlling, and hostile behaviors. The disengaging behaviors are meant to describe those conflict resolution strategies that could lead to or are indicative of a breakdown in the parent-adolescent relationship. For example, hostile behaviors such as accusations or blaming can lead to a defensive reply from the recipient of such attacks. As a consequence, these hostile statements may lead to the overpersonalization of the argument and a damaged parent-adolescent relationship (Allen et al., 1994; Allen et al., 1996; Robin & Foster, 2003).

The Current Study

The current study examined the specific conflict resolution strategies that parents and adolescents use when discussing an issue of disagreement and how these strategies relate to adolescent depression.

Specifically, I addressed four aims: (1) to reliably evaluate the conflict resolution strategies of a macro-analytic observational coding system, (2) to determine differences in the levels of engaging vs. disengaging behaviors by parents and adolescents, (3) to evaluate the convergent and divergent validity of the engaging and disengaging behaviors, and (4) to test the hypothesis that the use of engaging conflict resolution strategies by the parent-adolescent dyad will be negatively associated with adolescents' depression and that the use of disengaging conflict resolution strategies will have a positive association with adolescents' depression. Because these families were preparing for the transition to high school, a time generally considered stressful for adolescents and parents (Brown, 2004), an additional strength of the current study is that I was more likely to see parent-adolescent conflict and the conflict resolution strategies that I measured.

METHOD

The High School Transition Study (HSTS; Hussong, 2005) followed a two-stage research design that began with a school-based survey of eighth graders in a single school district in rural Chatham County, North Carolina. In this first stage, 399 of 436 8th grade students in participating schools completed classroom administered surveys which assessed a broad range of factors, including risk indicators for substance use (i.e., initiation of self and peer alcohol use). In the second stage, a subset of participants were recruited from this larger sample according to their rank-order of risk status (i.e., from high to low) related to substance use. Stage 2 participants (including target adolescents, parents, and target-selected peers) completed a multi-component battery over a 3-week period.

Participants

Participants for the current analyses were drawn from stage 2. These participants were recruited from the 399 participants in stage 1 during the summer between eighth and ninth grade (and thus recruitment was limited to an 8-week period). In stage 2, families were contacted by phone and mail in order of risk for substance use during the study period based on pre-established risk criteria. The level of risk for substance use was determined using a 6-point scale comprised of self-reported lifetime and current alcohol use as well as peer drinking (e.g., endorsement of all three indicators was the highest risk category). A recruitment list was formed by rank ordering all stage 1 participants on this risk indicator (i.e., from high to low), ranking at random those sharing equivalent scores. Participants were recruited in rank order from this list until the end of our recruitment period. The first 196 participants on the recruitment list were contacted (including all 169 participants who listed any level of risk on the 6-point index as well as 27 participants who indicated no risk on this

index), with 81 completing the study (i.e., 41% of those targeted for recruitment, $n=196$, or 57% of those eligible and contacted for recruitment, $n=142$). The primary reasons for non-participation included the following: inability to contact ($n=33$); ineligibility due to language barrier, moving, did not pass grade ($n=21$); limited availability ($n=17$); and privacy concerns ($n=11$). Of 142 total eligible families contacted, 57% participated in stage 2 ($n=81$).

Stage 2 participants were included in the current analyses if they had complete data on the parent–adolescent observation task ($n=4$ excluded for non-participation and $n=9$ excluded for poor video quality) resulting an analysis sample of $N=68$. The following characteristics describe the participants: 56% were female, 13.9 mean years of age ($SD=0.50$), 62% Caucasian, 29% African American, 1% Latino, 1% American Indian or Alaskan Native, 1% Asian, and 4% Other. The following characteristics describe the 68 parent participants: 92% were female, 43.5 mean years of age ($SD=6.63$), 65% Caucasian, 29% African American, 3% Latino, 7% American Indian or Alaskan Native, 1% Asian, and 1% Other. With regards to level of education attained, 13% of parents earned a high school degree, 40% earned a college degree, and 21% earned an advanced degree of some kind.

Procedure

In the first stage of the study, seven of nine schools housing 8th graders in a rural North Carolina school district agreed to participate in the study. Parents were informed about the study through letters mailed to their homes as well as sent home directly with students and were asked to contact the PI if they did not want their children invited to participate in the study (3% did so). Information about the study was made available for parents to review in each school. Pairs of research assistants conducted classroom based assessments of eighth graders in which they explained the study to students, obtained

informed consent, and administered surveys. Teachers were invited to stay during testing but were asked not to interact with students to protect confidentiality. Students received a token gift, and schools received a financial gift for participating in the study. One make-up day per school was also held to assess students absent on the original testing day.

In stage 2, participants completed a 3-week protocol, during which pairs of research assistants conducted two home visits or met with the participants at the university. Pertinent to the current study are data collected in the first visit. During this initial visit, research assistants met with the target adolescents and their parents, obtained written assent and consent, respectively, and interviewed them in separate rooms using a white noise machine to protect privacy. Adolescents privately entered their responses to a computer-administered interview during which a research assistant read the questions aloud to them. Research assistants also read aloud to parents who completed the assessment using a paper-and pencil method. At the completion of individual interviews, adolescents and parents were then asked to engage in three videotaped interaction tasks: a one-minute vacation planning warm-up task, a five-minute adolescent stress disclosure task, and a five-minute parent-adolescent conflict task (the focus of the current study). To ensure privacy, interviewers used white noise machines and guarded participants from other family disruptions during testing.

Parent-Adolescent Conflict Task. After completing their individual interviews, both the adolescent and parent separately completed an issues checklist form that asked them to list common issues of disagreement for teenagers and parents. Each then rated how much they disagreed on each of those issues at the moment using a scale developed by the research team. After the parent finished the checklist, the research assistant told him or her that the adolescent will be brought back into the room to discuss one of the issues on the list that both

the parent and the adolescent rated as stressful. If the parent indicated that there was an issue that s/he would not feel comfortable discussing with his/her adolescent, this issue was noted by the research assistant and was not chosen for the discussion task. Next, the research assistant summed the ratings for each item on the parent's and adolescent's checklists. The research assistant then chose the issue rated the highest by both the parent and adolescent as the topic of the conflict task. The items listed are the issues checklist were as follows: chores and responsibilities around home; curfew (coming home late); grades, school problems; hygiene, appearance, clothing; friends; family rules, discipline; fighting with brother(s)/sister(s); dating; privileges (ex.: using telephone, TV, computer); time spent with family; going places without family (ex.: movies, concerts); and respect (ex.: lying, respective privacy).

Finally, the research assistant instructed the parent-child dyad: "For the last task, we are interested in how parents and teenagers solve problems between them. A little while ago, you completed a questionnaire identifying problems between the two of you. Looking over your questionnaires, I see that you both identified (problem area) as something that's an important issue between the two of you. We would like you to take the next five minutes to discuss this issue with each other and try to reach some solution to the problem. Any questions? Okay, I'll stop you in five minutes. Please begin." The RA then left the room during the videotaping of the interaction and returned after five minutes to stop the interaction.

A majority of adolescents rated these conversations as at least somewhat similar to the ones they typically have with their parent about an important issue (i.e., 38% of adolescents rated these discussions as "somewhat similar;" 19% rated them as "quite

similar;” and 21% rated these conversations as “very similar”). Parents also reported that these conversations were fairly typical discussions between themselves and their adolescent (i.e., 29% deemed these conversations “somewhat similar;” 31% felt that they were “quite similar;” and 38% rated these discussions as “very similar”).

Measures

Demographic Variables. In stage 1, adolescents reported their ethnicity and gender. In stage 2, parents reported each parent’s educational status, with the higher of the two forming the parental educational attainment variable.

Issues Checklist. This measure assessed common areas of disagreement between parents and adolescents. These issues included: chores and responsibilities around the home, curfew, grades and school problems, hygiene, appearance, and clothing, friends, family rules and discipline, dating, privileges, time spent with the family, going places without the family, and respect. Parents and adolescents rated on a five-point scale how much they disagreed on each topic. The current study calculated the average disagreement rating on the Issues Checklist for adolescents and parents separately. The Cronbach’s alpha were $\alpha = .85$ for adolescent report of the Issues Checklist and $\alpha = .91$ for parent report of the Issues Checklist.

Conflict Resolution Strategies. For the current study, an observational coding system for conflict resolution strategies was developed. The coding system globally rated six conflict resolution strategies utilized by parents and early adolescents during the conflict interaction task. Parents and adolescents each received six Likert scale ratings (ranging from 1 to 5) indicating the extent to which they each exhibited the three different types of engaging and disengaging behaviors.

Operationalizations of these codes were based on the Age 15 Parent-Adolescent Interaction Coding System (Cox & Owen, 2006), the Autonomy and Relatedness Coding System (Allen, Hauser, Bell, McElhaney, Tate, Insabella, & Schlatter, 1994), and the Iowa Family Interaction Rating Scales (Melby, Conger, Book, Rueter, Lucy, Repinski, Rogers, Rogers, & Scaramella, 1998). The adapted scales most comparable to the parent-adolescent coding system used in the Age 15 Parent-Adolescent Interaction Coding System were the promoting relatedness, hostility, warmth, and dominance scales. The adapted scale most comparable to the coding system used in the Autonomy and Relatedness Coding System was the respect for the child's autonomy. Definitions and examples of the aforementioned constructs were adapted from the Age-15 Parent-Adolescent Interaction Coding System. For the Iowa Family Interaction Rating Scales, the hostility dyadic interaction scale was adopted as it was the most closely related to the hostility constructs of the current study's observational coding system.

“Engaging” behaviors are active listening approaches that engage the participants and keep the discussion focused on the issue or topic of the conflict while avoiding making personal characteristics of the participants the focus of discussion. Three codes reflected engaging behaviors. Active listening captured the extent to which a participant actively promotes rather than inhibited an exchange of information. This could include the use of open-ended, close-ended, and clarification questions in the hopes of garnering information that will lead to a greater understanding of the other person's perspective and emotions. Autonomy promoting measured parents' encouragement of adolescents' expression of their reasons for their beliefs, feelings, or actions through such behaviors as asking why their adolescents behaved in certain way or held a particular perspective. Autonomy expressing

measured adolescents' expression of his or her reason(s) for their beliefs, feelings, or actions through such behaviors as giving an example of that supports their argument. Relational strategies measured a participant's verbal and non-verbal responsiveness as a listener to the other person's verbalizations. These actions were meant to be rapport building (i.e., verbal or physical affection) and also encompassed a series of attending behaviors such as nodding of one's head to indicate listening.

I also coded three "disengaging" behaviors that do not involve active listening and instead move the focus of the discussion away from the conflict topic. Hostile behaviors captured the extent to which a participant directs hostile, angry, critical, or rejecting behavior towards the other person's opinions, behaviors, and/or personal characteristics. Controlling strategies measured the degree to which the participant attempted to control or influence what was discussed during the interaction task, how the discussion proceeded, and/or what their family member may discuss, believe, or feel during the interaction task. Withdrawal behaviors captured the extent to which the participant physically or verbally oriented him/herself away from their family member in such a way so as to avoid discussion of the issue of disagreement.

All coders underwent training that began with didactics in observational coding more generally and practice coding and discussing sample tapes. Training tapes were selected from parent-adolescent conflict tasks from a later phase of the study. During training, ratings were discussed as a group to clarify coders' understanding of the conflict resolution strategies scales. Research assistants continued to independently code training tapes until they reached an ICC of 0.70. Intra-Class Coefficients estimate inter-observer reliability while controlling for systematic bias among raters (Shrout & Fleiss, 1979). I coded all 68

analysis tapes while one research assistant coder was randomly assigned to code every fourth tape.

Depression. This construct was assessed with the thirteen items from the Short Mood Feelings Questionnaire-Child (SMFQ-C) version developed by Angold et al. (1995).

Participants responded to statements assessing depressive symptoms occurring in the past three months by marking (2) true, (1) sometimes true, or (0) not true. Angold et al. found an adequate internal reliability for this scale ($\alpha = 0.85$). The SMFQ-C also correlates moderately high with the Child Depression Inventory (CDI) ($r = 0.67$) and the Diagnostic Interview Schedule for Children (DISC-C) depression score ($r = 0.65$), establishing high criterion validity. In the current study, Cronbach's alpha was .88. Predictive validity of the observational coding scheme was determined using ratings of conflict resolution strategies to predict adolescent depression scores.

Validity Scales

When conceptualized as conflict resolution strategies, engaging and disengaging behaviors better reflect qualities of a dyadic interaction and are not simply aspects of individual style or personality. When parents and adolescents relate to each other in a way that utilizes positive conflict resolution strategies such as active listening behaviors, adolescents are more likely to express their autonomy while remaining attached, or connected, to other family members (Grotevant, 1997). In families where open communication is encouraged and adolescents are allowed to state their own opinions, teens are more likely to develop higher self-esteem, positive individuation and more mature coping skills (Allen, Hauser, Bell, & O'Connor, 1994). As such, measures of engaging conflict resolution strategies should be more similar to the parent-child interaction indicators of open

family communication. In turn, they should be less similar to personality or individual functioning indicators such as social acceptance.

Strained family relationships, as evidenced by the disengaging behaviors of accusing, insulting, and defiance, are associated with a lack of autonomy instead of its presence (Bomar & Sabatelli, 1996). Similarly, parents who use constraining behavior have difficulty accepting their child's individuality and react to expressions of opinion with judgmental remarks (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994). Therefore, disengaging conflict resolution strategies should be more similar to problems in family communication than to the personality characteristics of aggression or anger. These personality characteristics should be independent of a participant's use of disengaging strategies during a conflict discussion. By defining engaging and disengaging conflict resolution strategies in relation to other dyadic versus individual characteristics, these latter measures will serve as tests of convergent and divergent validity, respectively.

Family Communication. This construct reflects the quality of communication between family members using twenty items from Olson et al. (1985). The five-point response scale ranges from strongly disagree to strongly agree for all items. Half of the items are part of the "problem communication" subscale, and the other ten items belong to the "open communication" subscale. Previous research using the full scale has shown that internal consistencies ranged from .80-.92. Cronbach's alphas were .88 for adolescent report of open family communication and .76 for problems in family communication. Alphas were .75 for parent report of open family communication and .70 for problems in family communication. The open family communication subscale of family communication served as a convergent validity measure for the engaging behaviors whereas the problems in family communication

subscale of family communication served as a convergent validity measure for the disengaging behaviors.

Self-concept. This construct was assessed by five items from Harter's (1988) social acceptance subscale. The adolescent decided if the person described was "really true for me" or "sort of true for me." In Harter's original study with adolescents, alphas ranged from .77-.90 for the social acceptance subscale. For the current study, Cronbach's alpha for the five-item social acceptance subscale was .78. Because the social acceptance subscale does not necessarily relate conceptually to behaviors that engage both the issue of conflict and the other subject in a positive way, this measure served as a divergent validity measure for the engaging conflict resolution strategies.

Aggression. These sixteen items taken from the Problem Behavior Frequency Scale by Farrell et al. (2000) assessed aggression. Participants indicated the frequency of aggressive behaviors within the last three months on a six-point scale from never to 20 times or more. High levels of test-retest reliability were reported for this subscale. Farrell et al. (2000) found that the alpha was .85 in an urban sample and .82 in a rural sample. In the current study, Cronbach's alpha for the adolescent report was .87. Cronbach's alpha for the parent report of the aggression subscale was also .87. Because the aggression subscale does not necessarily relate to behaviors that engage both the issue of conflict and the other subject in a negative way, this measure served as a divergent validity measure for the disengaging conflict resolution strategies.

Anger. The three items from Lubin et al.'s (1998) Mood and Affect Adjective Checklist (MAACL) were used to assess anger. Basing their answers on the previous three months, participants answered how often they felt that emotion on a scale ranging from

hardly ever to often. For the current study, Cronbach's alpha for the adolescent report of the anger subscale was .73. Cronbach's alpha for the parent report was .79. Because the anger scale does not necessarily relate to behaviors that engage both the issue of conflict and the other subject in a negative way, this measure served as a divergent validity measure for the disengaging conflict resolution strategies.

RESULTS

A series of descriptive and inferential statistical procedures were used to test the four study aims. All analyses were conducted on the sample of N=68 parent-adolescent dyads. Results of Aim 1, in which the factor structure of the observational coding scales for conflict resolution was examined, guided subsequent analyses. Findings are presented for each aim in turn.

Rates and Reliability of Coded Conflict Resolution Strategies

Aim 1 evaluated the rates of conflict resolution strategies in parent-adolescent discussions and the reliability with which we able to code them. Across coders, ranges of ICC values were as follows: parent active listening = .75 - .86; parent autonomy promoting = .92 - 1.00; parent relational = .89 - .90; parent hostile = .81 - .86; parent controlling = .87 - .91; parent withdrawal = .63 - .89; adolescent active listening = .89 - .92; adolescent autonomy expressing = .53 - .85; adolescent relational = .92 - .93; adolescent hostile = .77 - .87; adolescent controlling = .80 - .88; and adolescent withdrawal = .96 - .98. Given these values, the coding system can be considered very reliable overall.

Descriptive statistics and correlations among study variables are reported in Table 1. Examinations of means for scales from the conflict resolution task showed that parents were most likely to engage in relational behaviors and least likely to display withdrawal behaviors. Conversely, adolescents were most likely to display autonomy expressing behaviors and least likely to utilize hostile conflict resolution strategies. Unsurprisingly, both parents and adolescents were less likely overall to employ strategies defined a priori as disengaging (e.g.,

hostile, controlling, and withdrawal). Because the scales for parental hostile and withdrawal behaviors and for adolescent hostile and controlling behaviors were highly skewed (>60% of interactions rarely exhibited these behaviors), these variables were dichotomized (as 1 vs. 2-5) for subsequent analyses.

Next, I conducted exploratory factor analyses (EFA) using SAS (2010) to examine the factor structure of the six coding scales within parents and adolescents, respectively. First, principal components analyses (PCA) were conducted separately by person to determine the number of factors to extract for a parent and an adolescent model separately. To counteract PCA's tendency towards the overextraction of factors (Fava & Velicer, 1992), Loehlin's (1992) factor extraction techniques, including the inspection of scree plots and eigenvalues (using the Kaiser-Gutman index) and the assessment of parsimony and theoretically significant factors, were used. Next, maximum-likelihood (ML) EFA models examined the measurement structure underlying each scale. Promax rotation was then applied to this solution in order to estimate a simple structure with theoretically meaningful factors. A general cutoff of $\Lambda = .35$ was employed to identify significant factor loadings and cross-loadings.

Following this procedure, all six of the conflict resolution scales were examined via PCA for both parents and adolescents and a three factor solution was extracted for each model. For the parent report because no subscales loaded on the third factor, I explored 2- and 1-factor solutions. A two factor solution for the parent model showed that active listening, autonomy promoting, and relational behaviors all loaded positively on the first factor while hostile, controlling and withdrawal behaviors cross-loaded negatively. Of those scales, autonomy promoting cross-loaded positively on the second factor and relational

behaviors loaded negatively. The single factor solution (see Table 2) also showed that those scales loading positively included active listening and relational behaviors and those loading negatively included hostile, controlling, and withdrawal behaviors. Autonomy promoting behaviors did not load at all.

For the three factor solution in the adolescent report model, scales loading positively on the first factor included relational behaviors and those loading negatively included withdrawal behaviors. However, both of these scales also cross-loaded on the second factor. While autonomy expressing, hostile, and controlling behaviors all loaded positively on the third factor, relational behaviors loaded negatively. Because this solution was also inconsistent with the goals of simple structure and distinguishable factors, I explored 2- and 1-factor solutions. Both the two- and one-factor solutions failed to converge.

In order to further explore this factor structure, I re-estimated the EFAs: (1) dropping the autonomy subscale (due to its low correlations with the subscales); (2) with only the three engaging behaviors subscales; (3) with only the disengaging behaviors; and (4) dropping the dichotomized scales of parental hostile and withdrawal and adolescent hostile and controlling behaviors because of their skewed distribution. None of these re-analyses resulted in a satisfactory simple structure in which the underlying factors were defined by three or more subscales. Based on these findings, I concluded that the six adolescent subscales are not reducible to a simpler structure but serve as relatively independent indicators of conflict resolution tactics. Although results for parents were more promising, I also examined the six subscales for parent behaviors independently to be parallel with the approach for adolescent behaviors. As a result, subsequent analyses did not collapse across the six subscales but focused on evaluating aims 2-4 using all six of the individual behaviors.

Levels of Engaging vs. Disengaging Behaviors

Aim 2 sought to determine if there were any differences in the levels of engaging versus disengaging behaviors within parents and adolescents. Although the predicted two factor structure of engaging and disengaging behaviors did not hold, strategies defined a priori as engaging were endorsed at higher rates than those defined a priori as disengaging across participants. To formally evaluate this observation, paired t-tests were conducted. Adolescents displayed a significantly higher level of engaging ($M=3.06$, $SD=0.62$) versus disengaging ($M=1.71$, $SD=0.58$) behaviors, $t(67) = 10.36$, $p < .0001$. Similarly, parents also exhibited significantly more engaging ($M=3.05$, $SD=0.74$) than disengaging ($M=1.66$, $SD=0.54$) behaviors during the conflict resolution task, $t(67) = 10.24$, $p < .0001$. Moreover, parents were not significantly more likely than adolescents to display engaging, $t(67) = 0.14$, $p > .05$, or disengaging behaviors, $t(67) = 0.51$, $p > .05$, during the conflict resolution task.

Convergent and Divergent Validity of the Conflict Resolution Strategies

Aim 3 evaluated the convergent and divergent validity of the engaging and disengaging conflict resolution strategies. Pearson correlations were calculated for each of the convergent and divergent measures (a similar pattern of results were found when t-tests were used for dichotomous observation codes). In order to determine whether a particular measure had a stronger association with convergent than divergent indices, the difference in the two correlations was evaluated using Steiger's approach (Steiger, 1980). As seen in Table 5, parents' withdrawal behaviors were associated with greater parent-reported family communication problems. Although parents' relational behaviors were uncorrelated with open family communication and social acceptance, the difference between these two correlations was significant. Moreover, adolescents with high levels of reported open family

communication were significantly less likely to exhibit active listening and autonomy expressing behaviors. Additionally, adolescents with high levels of reported problems in family communication were marginally significantly less likely to display controlling behaviors. Importantly, the association between adolescents' controlling behaviors and anger was stronger than the divergent association between their controlling behaviors and anger. Finally, convergent measure associations were also stronger than divergent measure association for adolescents' active listening, autonomy expressing, and hostility. The convergent associations were counterintuitive for active listening and autonomy expressing behaviors and non-significant for hostile behaviors.

Conflict Resolution Strategies and Adolescent Depression

Aim 4 tested the predictive validity hypothesis that the use of engaging conflict resolution strategies by the parent-adolescent dyad will be negatively associated with adolescents' depression and that the use of disengaging conflict resolution strategies will have a positive association with adolescents' depression. Consistent with this hypothesis, Table 1 indicates that adolescent depression is significantly and negatively correlated with parent active listening and adolescent relational behaviors. Similarly, adolescent depression has a marginally significant association with parent relational behaviors. Additionally, a significantly positive relationship exists between parent withdrawal strategies and adolescent depression.

Outlier analyses, particularly *DFFITs*, were conducted to check for indicators of influence. Two cases were deemed influential, and the tapes of their conflict interactions were reviewed. After reviewing the tapes, the validity of the interaction tasks was not called into question, and it was decided to retain the two cases.

In order to test the unique effects of these conflict resolution strategies on adolescents' depression, two ordinary least squares regression models were conducted (see Table 6). The first model predicting adolescent depression only included the control variables. Since results indicated that parent education ($\beta = -0.004, p > .05$), adolescent ethnicity ($\beta = 0.01, p > .05$), adolescent gender ($\beta = -0.12, p > .05$), and adolescent age ($\beta = -0.12, p > .05$) did not significantly predict adolescent depression, these control variables were not included in the subsequent regression analyses. Therefore, only the twelve total engaging and disengaging behaviors for both adolescents and parents were included in the second regression model. Mirroring simple correlations, both parental active listening, $\beta = -0.12, t(1) = -2.30, p < .05$, and adolescent relational behaviors, $\beta = -0.13, t(1) = -2.38, p < .05$, were significantly associated with lower levels of adolescent depressive symptoms. In a relationship that was marginally significant, parental withdrawal was associated with higher levels of adolescent depression, $\beta = 0.24, t(1) = 0.13, p < .10$.

DISCUSSION

The current study examined the specific conflict resolution strategies that parents and adolescents use when discussing an issue of disagreement and how these strategies relate to adolescent depression. Though highly reliable, the observational coding system for these parent-adolescent conflict resolution strategies exhibited poor convergent and divergent validity. However, there was modest predictive validity that the use of engaging conflict resolution strategies by the parent-adolescent dyad was negatively associated with adolescents' depression and that the use of disengaging conflict resolution strategies was positively associated with adolescents' depression. Below, I discuss the relationships between the conflict resolution scales and what those relationships suggest for adolescent depression.

Conflict Resolution Strategies

Given the distinction made between engaging and disengaging conflict resolution strategies, it was expected that engaging behaviors would inter-correlate while disengaging behaviors would also associate with one another. Unfortunately, this two-factor solution was not supported, and there was moderate support for only several, though not all, of the parent behavior scales. The parent engaging behaviors of active listening (i.e., encouraging discussion) and relational (i.e., attending and listening behaviors) strategies were positively correlated with one another and also negatively correlated (with the exception of the relationship between active listening and hostility) with the disengaging behaviors of hostility (i.e., unqualified criticism), control (i.e., domination of conversation), and

withdrawal (i.e., deliberate orientation away from person). In contrast, there was no support for the engaging/disengaging distinction for adolescents. None of the engaging conflict resolution strategies were inter-correlated, and only hostility and control were associated with the disengaging behaviors. Relational behaviors proved the closest to the expected adolescent associations of negative correlations with the disengaging behaviors. However, once again, no factor structure was supported.

These findings suggest the possible existence of a power dynamic that is exerting control over the display of parent and adolescent conflict resolution behaviors. Especially during early adolescence, parent-adolescent conflicts are typically resolved by a parent power assertion that is typically followed by adolescent withdrawal (Adams & Laursen, 2001). As proposed by Allen et al. (1994) and Kobak et al. (1993), in order to maintain a relationship with their parents, adolescents sometimes would rather withdraw than exert their growing autonomy. This situation could explain why the parents were more proactive and self-initiated while the adolescents were more reactive in their behavior. Adolescents could have been more concerned with displaying their relational behaviors so as to maintain their relationships with their parents. However, as adolescents age, they are less likely to withdraw or comply with their parents' wishes; instead, they are more likely to utilize perspective-taking and negotiation behaviors (Sandy & Cochran, 2000) to bring an end to the conflict. During this time of transition, the parent-adolescent relationship may evolve in such a way that the relationship responsibilities and acts of dominance must be renegotiated (Cox & Paley, 1997). Therefore, previous relationship behaviors will be disrupted and conflicts may see more fluctuations in their typical outcomes (Branje, 2008) before the parent-

adolescent system eventually transitions to a more egalitarian and reciprocal relationship (Collins, 1997).

Another potential explanation for adolescents' use of the more reactive conflict resolution strategy and parents' use of the more proactive behaviors could be related to the topic of the conflict discussion. Perhaps parents and adolescents reacted differently to the discussion of a disagreement that was, for the majority of them, at least somewhat similar to a typical conversation they have with their family member. Parents may have decided it was the time to finally come to some sort of resolution to this ongoing problem, and this led to more self-initiative behaviors that they hoped would get a discussion going about potential resolution(s) to the problem. Adolescents, on the other hand, may have felt reluctant and even weary to once again discuss a topic that seemed to be tackled fairly often. Their disinclination to further discuss this topic could be a reason why their significant behavior, the relational strategy, was more reactive to the more proactive, resolution goals of their parents.

Psychometric Properties of the Observational Coding System

The coding system proved to be very reliable across engaging and disengaging behaviors and across participants. Although it showed low correlations with the intrapersonal factors used as indices of divergent validity, it also displayed low correlations with the family communication factors used as measures of convergent validity. However, there proved to be several exceptions: two marginally significant associations between problems in family communication and the disengaging behaviors of parent active listening and adolescent control and two counter-intuitive significant associations between open family communication and the engaging behaviors of adolescent active listening and

autonomy promoting. Nevertheless, despite these findings, given that these results account for only four of twelve validity analyses, they should be interpreted with caution. Therefore, the coding scheme showed low overall convergent validity.

Given the relatively limited research investigating, let alone successfully attaining, convergent and divergent validity in observational coding systems, the current study's low convergent validity is comparatively less distressing. Moreover, it is the first observational study of parent-adolescent conflict resolution strategies to consider convergent and divergent validity. As such, the results encourage further exploration of other factors that could have contributed to the lack of convergent and discriminant validity. For instance, the coding scheme was an observational measure while the indices of convergent and divergent validity were self-report measures. Though it is a strength of the observational coding system, these differing modalities may tap different aspects of the dyadic interaction that ultimately challenge the establishment of validity.

Another explanation could be that they tap different measures of communication. Both the open and problems in family communication scales measure general communication styles and not the communication *strategies* of the coding scheme. Furthermore, while the observational coding system is specific to conflict situations, the communication scales are not. Finally, the communication scales can only measure how the adolescent feels about his parents' reactions. In contrast, the coding system allows for the observation and measurement of both adolescent and parent behaviors. Further attempts to validate these measures may focus on other conflict measures that concern dyadic interaction such as the Parent-Adolescent Relationship Questionnaire (PARQ; Robin, 1985; Robin, Koepke, & Moye, 1986), a comprehensive assessment of multiple dimensions of family

interaction, or the Family Adaptability and Cohesion Evaluation Scale (FACES) IV (Olson, 2011), a scale to assess the cohesion and flexibility of a family. Because these measures are still self-report, another consideration would be to utilize another observational, dyadic interaction measure as a potential index of convergent validity. For instance, the Parent-Adolescent Interaction Coding System (Robin & Weiss, 1980) is an event-based coding system that measures three different types of behavior in parents and adolescents: positive, negative, and neutral. Given its focus on communication strategies, dyadic interaction, and foundation in conflict, this observational could be provide a more viable option for the establishment of convergent and divergent validity.

Conflict Resolution Strategies and Adolescent Depression

While the engaging behaviors of parent active listening and adolescent relational conflict resolution strategies were significantly and negatively associated with adolescent depression, parental withdrawal was also marginally associated with higher levels of adolescent depression. These findings speak to previous literature reporting that parent-adolescent relationships characterized by warmth and openness are less likely to exhibit adolescent depression (Chambers, Power, Loucks, & Swanson, 2000, Rapee, 1997). Given their classification as the behaviors that are rapport building and discussion promoting, the engaging behaviors of adolescent relational and parental active listening could map on to these interaction concepts of warmth and openness, respectively. Similarly, adolescents who perceive their parents as unavailable are more likely to struggle with depression (Hale et al., 2007; Biggam & Power, 1998, Rapee, 1997). A lack of parental support and encouragement may prevent a secure bond from forming between a parent and child. The child, and eventual adolescent, may subsequently have difficulty establishing trusting relationships (Kraaij et al.,

2003) which can place them at risk for developing depressive symptoms (Parker, 1993). In contrast, adolescents' attachment to their parents has been found to strengthen, and their risk for depression lowered, when parents actively encourage discussion and adolescents respond in kind (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994).

Strengths and Limitations

Strengths of the current study include the use of an observational coding system to investigate the specific conflict resolution strategies that parents and adolescents use when discussing an issue of disagreement. Of the few published studies incorporating an observational design for the examination of parent-adolescent conflict resolution, none have utilized a global rating scale in an attempt to distinguish between the process and outcome of conflict resolution between parents and adolescents. Moreover, no observational studies, to my knowledge, have looked at how these conflict resolution strategies in parent-adolescent relationships predict adolescent depression.

Despite these strengths, there are also several limitations that must be addressed. First, though the modest sample size of 68 allowed for adequate power (of $\beta = .80$ or greater) to detect a medium effect ($f^2 = 0.35$), it was not enough for detection of any small effects ($f^2 = 0.20$). Therefore, any correlations not detected cannot be attributed to lack of power. Second, the measures used to determine convergent and divergent validity may not have been appropriate scales. Future research may wish to utilize different measures that are specific to parent-adolescent conflict and are behavioral and dyadic in nature. Third, though the coding system provided an excellent global look into the resolution strategies used by parents and adolescents during a disagreement discussion, the macro coding of these behaviors does not allow for the measurement of the dynamic interaction patterns of parents and adolescents in a

conflict or for how different conflict resolution resolutions strategies co-occur or interact within a dyad. Furthermore, behaviors were only coded for this particular five minute interaction which regrettably precludes the larger context in which the parent-adolescent relationship exists from being studied. Finally, the effect of conflict resolution strategies on adolescent depression over time has not been determined yet. Future studies should incorporate a longitudinal design to determine the long-term relationship, if any, between the use of these engaging and disengaging behaviors and adolescent depression.

Implications and Conclusions

The current study employed an observational coding system to investigate the specific conflict resolution strategies that parents and adolescents use during a conflict discussion and how these strategies relate to adolescent depression. Even though measures of convergent and divergent validity were poor, the coding system proved to be highly reliable. Additionally, analyses demonstrated that parent active listening and adolescent relational behaviors were associated with lower levels of adolescent depression whereas parental displays of withdrawal behavior were moderately related to an increase in adolescent depression. As such, it appears that it is not only what is said between parents and adolescents during a disagreement that influences adolescent depression, but it is also how that discussion is conducted, both verbally and non-verbally, that can also impact adolescent depression.

These findings also encouraged a move beyond the current frequency/intensity conceptualization of conflict. The actual process of what is said, and how it is said between parents and adolescents during the conflict situation needs to be studied further. In order to do so, further refinement of these conflict resolution strategies may be necessary to gain

additional insight to this conflict resolution process. For example, as a means of further investigating the potential difference between verbal and non-verbal behaviors in their effect on adolescent depression, it could prove interesting to tease apart the relational construct. This scale has both verbal and non-verbal components to it, and perhaps, one of these components is more likely to be related to adolescent depression. Similarly, further distinguishing between the disengaging codes of hostility and control may also be necessary. Though their respective motivations are different (i.e., deliberately critical vs. a desired dominance over the conversation), both behaviors share the dismissal and/or minimizing of the other person's thoughts or feelings. Future research would benefit from a better understanding of the nature of these and the other conflict resolution strategies.

Another potential next step would be to address the limitation of failing to measure the dynamic interaction patterns of the parent-adolescent dyad and of the conflict resolution strategies. While a global coding system allowed the measurement of which behaviors were being used, a micro-analytic coding system could provide further insight into that dynamic interaction between parents, adolescents, and the conflict resolution strategies they decide to use. Finally, this gathering of information could also lend itself nicely to the exploration of the larger context in which these parent-adolescent dyads are based. For instance, given the literature stating that adolescents interact differently with one parent than when they are with two (Vuchinich, Emery, & Cassidy, 1988), it would be an excellent opportunity to further study this greater framework by including other members of the family or household in the interaction task.

TABLES

Table 1. Descriptive statistics for levels of adolescent depressive symptoms and engaging and disengaging behaviors within participant.

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	Parent Active Listening	--												
2	Parent Autonomy Promoting	0.49***	--											
3	Parent Relational	0.37**	0.13	--										
4	Parent Hostile	0.37**	0.07	-0.48***	--									
5	Parent Controlling	-0.29*	-0.17	-0.48***	0.32**	--								
6	Parent Withdrawal	-0.31***	-0.20 ⁺	-0.49***	0.24*	0.04	--							
7	Adolescent Active Listening	0.01	-0.03	0.02	0.22 ⁺	-0.08	0.16	--						
8	Adolescent Autonomy Expressing	-0.04	0.01	0.25*	-0.35**	-0.24*	-0.08	0.11	--					
9	Adolescent Relational	-0.09	0.03	0.41***	-0.15	0.07	-0.03	0.02	0.16	--				
10	Adolescent Hostile	0.01	-0.13	-0.13	0.25*	0.004	0.04	0.15	0.07	-0.44***	--			
11	Adolescent Controlling	0.14	0.12	-0.01	0.14	0.06	-0.11	0.04	0.18	-0.35***	0.54***	--		
12	Adolescent Withdrawal	-0.03	0.02	-0.37**	0.13	-0.10	0.11	-0.18	-0.47***	-0.60***	-0.08	-0.11	--	
13	Depression	-0.27*	-0.15	-0.21 ⁺	0.02	-0.0002	0.31**	0.19	0.06	-0.26*	0.18	0.12	0.02	--
	Mean	3.10	2.32	3.72	1.40	2.37	1.21	1.96	4.15	3.09	1.34	1.62	2.16	0.40
	SD	0.90	1.11	0.98	0.69	1.02	0.51	0.87	0.83	1.23	0.73	0.88	1.20	0.32

Table 2. Factor loadings for the two-factor parent solution extracted from the EFA analyses.

Scales	Parent Analyses	
	Factor 1	Factor 2
Active Listening	0.56179	0.28650
Autonomy Promoting	0.47424	0.78134
Relational	0.85456	-0.35706
Hostile	-0.51423	0.31571
Controlling	-0.50864	0.09590
Withdrawal	-0.52906	0.06910

Table 3. Report of convergent validity and divergent validity within participant.

Participant	Coding Construct	Convergent Scale	Convergent Association Test	Divergent Scale	Divergent Association Test	Difference in Association Tests
Parent	Active Listening	Open Family Communication (parent report)	$r = -0.04$	Social Acceptance	$r = 0.04$	$t(65) = -0.45$
	Autonomy Promoting	Open Family Communication (parent report)	$r = -0.04$	Social Acceptance	$r = -0.13$	$t(65) = 0.51$
	Relational	Open Family Communication (parent report)	$r = -0.14$	Social Acceptance	$r = 0.17$	$t(65) = -1.77^*$
	Hostile	Problems in Family Communication (parent report)	$r = 0.15$	Total Aggression (parent report)	$r = 0.02$	$t(65) = 0.79$
	Controlling	Problems in Family Communication (parent report)	$r = 0.09$	Total Aggression (parent report)	$r = -0.19$	$t(65) = 1.72$
	Withdrawal	Problems in Family Communication (parent report)	$r = 0.20^+$	Total Aggression (parent report)	$r = 0.05$	$t(65) = 0.92$
Adolescent	Active Listening	Open Family Communication (adolescent report)	$r = -0.25^*$	Social Acceptance	$r = 0.06$	$t(65) = -2.01^*$
	Autonomy Expressing	Open Family Communication (adolescent report)	$r = -0.26^*$	Social Acceptance	$r = 0.06$	$t(65) = -2.08^*$
	Relational	Open Family Communication (adolescent report)	$r = 0.15$	Social Acceptance	$r = 0.04$	$t(65) = 0.70$
	Hostile	Problems in Family Communication (adolescent report)	$r = -0.04$	Anger (adolescent report)	$r = 0.16$	$t(65) = -1.35^+$
	Controlling	Problems in Family Communication (adolescent report)	$r = -0.23^+$	Anger (adolescent report)	$r = 0.08$	$t(65) = -2.13^*$
	Withdrawal	Problems in Family Communication (adolescent report)	$r = 0.06$	Anger (adolescent report)	$r = 0.17$	$t(65) = -0.74$

Note: + indicates a p-value < .10; * indicates a p-value of < .05

Table 4. Results of regression analyses conflict resolution scales predicting depression (Aim 4).

Predictors	Model 1		Model 2	
	β	<i>t</i>	β	<i>t</i>
<i>Control Variables</i>				
Parent Education	-0.004	-0.11	---	---
Adolescent Ethnicity	0.01	0.18	---	---
Adolescent Gender	-0.12	1.92	---	---
Adolescent Age	-0.12	-1.54	---	---
<i>Main Effect</i>				
Parent Active Listening	---	---	-0.12	-2.30*
Parent Autonomy Promoting	---	---	0.03	0.78
Parent Relational	---	---	0.02	0.34
Parent Hostile	---	---	-0.13	-1.20
Parent Controlling	---	---	-0.002	-0.03
Parent Withdrawal	---	---	0.24	1.93⁺
Adolescent Active Listening	---	---	0.06	1.23
Adolescent Autonomy Expressing	---	---	-0.04	-0.62
Adolescent Relational	---	---	-0.13	-2.38*
Adolescent Hostile	---	---	0.01	0.08
Adolescent Controlling	---	---	0.01	0.10
Adolescent Withdrawal	---	---	-0.07	-1.52

Note: + indicates a p-value < .10; * indicates a p-value of < .05

APPENDIX I:

Parent-Adolescent Conflict Resolution Strategies Global Rating Coding Scheme Updated: 08/19/10

The following coding system globally rates the conflict resolution strategies utilized by parents and early adolescents during a conflict interaction task. The coding scheme was adapted from the Autonomy and Relatedness Coding System (Allen, Hauser, Bell, McElhaney, Tate, Insabella, & Schlatter, 1994), the Age 15 Parent-Adolescent Interaction Coding System (Cox & Owen, 2006), and the Iowa Family Interaction Rating Scales (Melby, Conger, Book, Rueter, Lucy, Repinski, Rogers, Rogers, & Scaramella, 1998). Each scale should be rated for the parent and adolescent separately.

Definitions

Conflict—the overt expression of differences between adolescents and their parents.

Conflict Resolution Strategy—behavioral approach to interpersonal conflict that helps people with opposing positions work together to end a disagreement involving the overt expression of differences.

Engaging Behaviors—active listening approaches that engage the participants and keep the discussion focused on the issue or topic of the conflict while avoiding making personal characteristics of the participants the focus of discussion.

- (1) *Active listening behaviors*
- (2) *Autonomy promoting/expressing behaviors*
- (3) *Relational behaviors*

Disengaging Behaviors—those approaches that do not involve active listening and instead move the focus of the discussion away from the conflict topic.

- (1) *Hostile behaviors*
- (2) *Controlling behaviors*
- (3) *Withdrawal behaviors*

Global Coding Instructions

Each five minute interaction should be watched two times for the parent and two times for the adolescent. During the first viewing, you should observe either the parent's or adolescent's discussion without any particular focus or intention of scoring. This first pass is to understand what issue the parent and adolescent are discussing and one family member generally communicates with the other. After this first viewing, you should watch the interaction a second time so as to form an opinion of the strategies being used by the family member to end the discussion of disagreement. How focused is the discussion on the topic of the conflict? Is the speaker making the other participant's personal characteristics the focus of discussion? After this second pass, you should globally rate the use of the three types of engaging and three types of disengaging behaviors for the selected family member (either the parent or adolescent) according to the appropriate construct scale. Upon completion, you

should repeat this procedure for the other family member. The viewing order of family members can be determined by the list found in the attached coding scheme documentation.

Parent Coding Scheme

Parent Engaging Behaviors—Active Listening Behaviors

This code is intended to capture the extent to which a parent actively promotes rather than inhibits an exchange of information. This could include the use of open-ended and clarification questions in the hopes of garnering information that will lead to a greater understanding of the adolescent's perspective and emotions. A question should be considered close-ended if it can only garner a "yes" or "no" response thereby inhibiting an exchange of information. Additionally, the intent behind the question should also be considered when making one's ratings. While clarification and factual questions do lead to a better understanding of the actual discussion topic(s), a lack of questions regarding the adolescent's perspective(s) and emotion(s) should be considered on the lower end of the active listening scale. The number and type (i.e., open- vs. closed-ended questions) of the question should be considered when rating a parent's active listening skills.

Active listening is fundamental to engagement behaviors as a whole. Therefore, it would be odd, to have a low score in the parental active listening construct and have high scores on the parental autonomy promoting behaviors and/or relational behaviors constructs. However, this will occur on rare occasions. It is important to keep in mind that when coding active listening for the parent, you should not count those discussion promoting questions that look to understand the adolescent's reasons for thinking or feeling a certain way. These behaviors should only be counted towards the Parental Autonomy Promoting construct. Therefore, even though these questions do encourage discussion between the parent and adolescent, they should only be considered salient to the Autonomy Promoting behaviors.

Examples of appropriate open-ended active listening questions might be: "When I grounded you for breaking curfew, how did that make you feel?" or "How do you think I should have handled the situation?" A close-ended active listening question could be: "Did you wash the dishes like I asked you to this morning?" However, if the parent asks the adolescent, "Why didn't you wash the dishes like I asked you to this morning?" this question should be coded as an autonomy promoting behavior because the parent is asking for the reason behind an adolescent's action.

Finally, a parent could demonstrate that he or she has been paying attention to and has an interest in the adolescent's points through the use of summary, empathy, and validation statements.

Rarely (1) The parent rarely, if ever, used any manifestation of the active listening behaviors.

A little bit (2) The parent infrequently displayed examples of the active listening behaviors. He or she engaged in a discussion with the adolescent by perhaps asking an occasional question or summarizing what was said. It is seen as the seldom

use of one, or some combination, of active listening behaviors.

Somewhat (3) The parent displayed examples of active listening behaviors intermittently. This is exhibited by the occasional use of at least one or some combination of active listening behaviors. Or, he or she had to display at least one active listening behavior no more than half of the time of the interaction. However, if a parent only asked factual or close-ended questions no more than half the time, then he or she should not be given a 3 and should be given a 2.

Quite a bit (4) The parent displayed examples of active listening behaviors fairly often. This can be exemplified by the fairly frequent use of any combination of active listening behaviors. Or, the parent had to display at least one active listening behavior, or any combination of active listening behaviors, at least half of the time during the interaction task.

A lot (5) The parent exhibited examples of active listening behaviors throughout the interaction task on a consistent basis. This is evidenced by the near constant use of active listening behaviors. Or, the participant had to display at least one, or some combination of active listening behaviors throughout the entire interaction task.

Parent Engaging Behaviors—Autonomy Promoting Behaviors

In order to promote autonomy, a parent may express and encourage discussion about the adolescents' reasons behind disagreements or actions. However, these reasons should not include the overpersonalization of a disagreement. When considering a rating of autonomy-promoting behaviors, the number and quality of the inquiries should be considered. The varying degrees of quality are as follows:

Vague inquiry/discussion: A parent may ask for the adolescent's belief or position without expressly inquiring as to the reason behind the stance (i.e., "What do you think?").

Simple inquiry/discussion: A parent may ask for a singular reason for why that particular position is held by the adolescent (i.e., "Why do you think/feel that way?").

Expanded inquiry/discussion: A parent may ask the adolescent for additional reasons or to expand upon the argument(s) given in support of his or her belief or position (i.e., "Can you give me an example?" "Is there another reason you feel this way?").

Rarely (1) The parent rarely, if ever, used any manifestation of the autonomy promoting behaviors. He or she rarely encouraged discussion of the adolescent's reasons behind the conflict discussion.

A little bit (2) The parent infrequently displayed examples of the autonomy promoting behaviors. He or she typically utilized vague inquiries/discussion tactics and never any simple inquiries that sought to garner the adolescent's reason(s)

behind a disagreement.

Somewhat (3) The parent intermittently encouraged the discussion of the reasons behind the topic of disagreement. This was exhibited by the occasional use of at least 1 simple point during, at most, half of the time of the interaction. There was no evidence of any expanded inquiry/discussion queries.

Quite a bit (4) The parent encouraged the discussion of the reasons behind the conflict and displayed examples of autonomy promoting behaviors fairly often. This can be exemplified by the use of at least 2 simple inquiries, or 1 simple and 1 expanded inquiry. Vague inquiries should be used sparingly.

A lot (5) The parent consistently encouraged discussion of the differences of opinion and/or perspective between the parent and adolescent. A rating of 5 should be given if the parent provides at least 2 expanded inquiries/discussion points. Simple inquiries are rarely used by themselves and vague points are not discussed at length.

Parent Engaging Behaviors—Relational Behaviors

Relational scores measure parents' verbal and non-verbal responsiveness as a listener to the adolescents' verbalizations. These actions are meant to be rapport building and also encompass a series of attending behaviors. Active listening behaviors are distinct from relational behaviors in that the former constitutes what is said in the discussion where the latter characterizes how the discussion is conducted. For example, asking an open- or closed-ended question would be rated under the Active Listening construct. However, the manner or tone used to ask the question (i.e., *how* the question is asked) would fall under the Relational Behaviors section. In the hierarchy of behaviors, Relational Behaviors encompass those actions that establish or bolster the relationship between the two family members while Active Listening Behaviors demonstrate *engagement* in the discussion. For example, during the interaction task, a parent may demonstrate complimenting, humor, verbal or physical affection, verbal encouragers ("uh-huh, hm-mm, go on," etc.), non-verbal encouragers (nodding head), or appropriate tone of voice. The sincerity of each of these behaviors must be considered when attributing a score.

Rarely (1) The parent rarely, if ever, used any manifestation of the relational behaviors.

A little bit (2) The parent infrequently displayed examples of the relational behaviors. There may be some sincere positive tone or warmth or sporadic use of encouragers (verbal and/or non-verbal). There was a seldom use of one, or some combination, of relational behaviors.

Somewhat (3) The parent displayed examples of sincere relational behaviors intermittently. This is exhibited by the occasional use of at least one or some combination of relational and/or attending behaviors. Or, he or she had to display at least one relational behavior no more than half of the time of the interaction. However,

this one relational behavior must also be considered to be sincere during the entire time frame it is exhibited. If not, a score of 2 must be given.

Quite a bit (4) The parent displayed examples of sincere relational behaviors fairly often. This can be exemplified by the fairly frequent use of any combination of sincere relational behaviors. Or, the parent had to display at least one relational behavior, or any combination of relational behaviors, more often than not during the interaction task. However, this behavior or combination of behaviors must be judged to be sincere during the entire time frame it is demonstrated. If a behavior, or combination of behaviors were displayed more often than not during the task but was deemed sincere only half the time it was exhibited, then a rating of 3 should be given. If judged to be sincere less than half the time, a score of 2 should be assigned.

A lot (5) The parent exhibited examples of relational behaviors throughout the interaction task on a consistent basis. The participant had to display at least one, or some combination of relational behaviors throughout the entire interaction task. However, this behavior or combination of behaviors must be judged to be sincere during the entire time frame it is demonstrated. If a behavior, or combination of behaviors were displayed consistently throughout the task but were deemed sincere only a majority of the time it was exhibited, then a rating of 4 should be given.

Parent Disengaging Behaviors—Hostile Behaviors

This scale reflects the extent to which a parent directs hostile, angry, critical, rejecting, or discounting behavior towards the adolescent's opinions, behaviors, and/or personal characteristics.

A parent demonstrating hostile behaviors may express unqualified disapproval or criticism of the adolescent's personal characteristics. Criticism of adolescent behavior should be considered in this category. Hostile statements (i.e., malicious teasing, cursing, harsh criticism) would understandably cause the adolescent to feel hurt, irritated, or worse about him/herself. However, these behaviors do not include parental expressions of mere displeasure with the adolescent. Instead, they are insulting, derogatory, or threatening. A parent may accuse or place undue blame on the adolescent or be particularly insensitive to or dismissive of an adolescent's opinions, feelings, and/or situation.

Rarely (1) The parent rarely used any manifestation of hostile behaviors.

A little bit (2) The parent infrequently exhibited one, or some combination, of hostile behaviors.

Somewhat (3) The parent exhibited an occasional use of at least one or some combination of, hostile behavior(s) no more than half of the time of the interaction.

Quite a bit (4) The parent exhibited a fairly frequent use of hostile behaviors. Or, the parent displayed at least one hostile behavior, or any combination of hostile behaviors, more often than not during the interaction task.

A lot (5) The parent consistently utilized hostile behaviors throughout the interaction task. Or, the parent displayed at least one, or some combination of hostile behaviors throughout the entire interaction task.

Parent Disengaging Behaviors—Controlling Behaviors

Controlling behaviors measure the degree to which the parent attempts to control or influence what is discussed during the interaction task, how the discussion proceeds, and/or what the adolescent may discuss, believe, or feel during the interaction task.

A parent may lecture or shame the adolescent on how to think, act, or feel in a way that assumes superiority and discourages the adolescent's ability to respond, initiate discussions, or think independently. This could also manifest as the parent talking most of the time, interrupting the adolescent, ignoring his or her opinion, or minimizing the validity of the adolescent's feelings or beliefs. Controlling behaviors reflect a parental agenda to dictate the discussion and/or outcome of the interaction. Interjections should not be considered as part of this section; only those interruptions that purposely cut off the adolescent should be included.

Rarely (1) The parent rarely used any manifestation of controlling behaviors and did not appear to have any sort of agenda.

A little bit (2) The parent infrequently exhibited one, or some combination, of controlling behaviors. He or she may display a brief instance of attempting to dominate the discussion.

Somewhat (3) The parent exhibited an occasional use of at least one or some combination of, controlling behavior(s). Or, he or she displayed at least one controlling behavior no more than half of the time of the interaction. The parent may have some sort of agenda for the discussion, but the adolescent is given reasonable opportunity to express opinions and/or feelings.

Quite a bit (4) The parent exhibited a fairly frequent use of controlling behaviors with a fairly obvious desire to direct the conversation. Or, the parent displayed at least one controlling behavior, or any combination of controlling behaviors, more often than not during the interaction task. The parent does the majority of the talking with the adolescent being given sporadic opportunities to contribute to the discussion.

A lot (5) The parent consistently utilized controlling behaviors throughout the interaction task. Or, the parent displayed at least one, or some combination of controlling behaviors throughout the entire interaction task. It is completely

obvious that the parent has an agenda and forcefully attempts to dominate the discussion. The teen has rare opportunities to engage in discussion.

Parent Disengaging Behaviors—Withdrawal Behaviors

This scale is intended to capture the extent to which the parent physically or verbally orients him/herself away from the adolescent in such a way so as to avoid discussion of the issue of disagreement.

This blocking of communication may manifest as parental stonewalling, tense silence, defiance, or willful avoidance of certain topics. Additionally, a parent may physically turn his or her body so that he or she is no longer facing the adolescent. Reluctance to discuss certain topics because of shyness or nervousness should not be considered for this section of behaviors. A lack of concern and disregard for the discussion should be present.

Rarely (1) The parent rarely used any manifestation of withdrawal behaviors. He or she actively participated in the interaction task.

A little bit (2) The parent infrequently exhibited one, or some combination, of withdrawal behaviors. He or she may display a brief instance of attempting to withdraw from the discussion.

Somewhat (3) The parent exhibited an occasional use of at least one or some combination of, withdrawal behavior(s). Or, he or she displayed at least one withdrawal behavior no more than half of the time of the interaction. The parent may attempt to block discussion of some topic.

Quite a bit (4) The parent exhibited a fairly frequent use of withdrawal behaviors with a fairly obvious desire to avoid the conversation. Or, the parent displayed at least one withdrawal behavior, or any combination of withdrawal behaviors, more often than not during the interaction task. The adolescent does the majority of the talking with minimal, willing input from the parent.

A lot (5) The parent consistently utilized withdrawal behaviors throughout the interaction task so as to avoid discussing the assigned topic. Or, the parent displayed at least one, or some combination of withdrawal behaviors throughout the entire interaction task. It is completely obvious that the parent did not wish to take part in any sort of discussion and actively avoided doing so.

Adolescent Coding Scheme

Adolescent Engaging Behaviors—Active Listening Behaviors

This code is intended to capture the extent to which an adolescent actively promotes rather than inhibits an exchange of information. This could include the use of open-ended and clarification questions in the hopes of garnering information that will lead to a greater

understanding of the parent's perspective and emotions. However, the intent behind the question should also be considered when making one's ratings. While clarification and factual questions do lead to a better understanding of the actual discussion topic(s), a lack of questions regarding the parent's thoughts should be considered on the lower end of the active listening scale. The number and type (i.e., open- vs. closed-ended questions) of the question should be considered when rating an adolescent's active listening skills.

Active listening is fundamental to engagement behaviors as a whole. However, unlike Parental Active Listening Behaviors, you are more likely to see a low score in the active listening construct and high scores on the autonomy promoting behaviors and/or relational behaviors constructs. For example, this could be seen in the more likely scenario of an adolescent not actively trying to promote discussion with his or her parent but at the same time, be quite willing to express the reasons for their actions or beliefs.

Finally, an adolescent could demonstrate that he or she has been paying attention to and has an interest in the parent's points through the use of summaries, empathy, and validation statements.

Rarely (1) The adolescent rarely, if ever, used any manifestation of the active listening behaviors.

A little bit (2) The adolescent infrequently displayed examples of the active listening behaviors. He or she engaged in a discussion with the parent by perhaps asking an occasional question or summarizing what was said. It is seen as the seldom use of one, or some combination, of active listening behaviors.

Somewhat (3) The adolescent displayed examples of active listening behaviors intermittently. This is exhibited by the occasional use of at least one or some combination of active listening behaviors. Or, he or she had to display at least one active listening behavior no more than half of the time of the interaction. However, if an adolescent only asked factual or close-ended questions no more than half the time, then he or she should not be given a 3 and should be given a 2.

Quite a bit (4) The adolescent displayed examples of active listening behaviors fairly often. This can be exemplified by the fairly frequent use of any combination of active listening behaviors. Or, the adolescent had to display at least one active listening behavior, or any combination of active listening behaviors, more often than not during the interaction task.

A lot (5) The teen exhibited examples of active listening behaviors throughout the interaction task on a consistent basis. This is evidenced by the near constant use of active listening behaviors. Or, the participant had to display at least one, or some combination of active listening behaviors throughout the entire interaction task.

Adolescent Engaging Behaviors—Autonomy Expressing Behaviors

In order to promote autonomy, an adolescent may express his or her reason(s) behind a disagreement or actions. However, these reasons should not include the overpersonalization of a disagreement. When considering a rating of autonomy expressing behaviors, the number and quality of the reasons discussed should be considered. The varying degrees of quality are as follows:

Vague Point: A belief or position is expressed without giving a reason as to why (i.e., “I just didn’t do it.”). Or, attempts to explain why a certain position is held is unclear and difficult to understand.

Simple point: A belief or position is expressed that only hints at a reason of why the position is held (i.e., “I didn’t do it because I was tired.”).

Supported point: A belief or position is expressed that is justified with at least one coherent example that supports the argument. The relevant example should provide additional information and/or support to the original position (i.e., “I didn’t do it because I was tired from school, practice, and babysitting all day.”).

Rarely (1) The adolescent rarely, if ever, used any manifestation of the autonomy expressing behaviors. He or she rarely encouraged or engaged in discussion of the reasons behind the conflict discussion.

A little bit (2) The teen infrequently displayed examples of the autonomy expressing behaviors. He or she typically utilized vague points and never any simple or supported points as the reasons behind a disagreement or action.

Somewhat (3) The adolescent intermittently encouraged and engaged in the discussion of the reasons behind the topic of disagreement or action. This was exhibited by the occasional use of 1 simple point no more than half of the time of the interaction. There was no evidence of any supported points.

Quite a bit (4) The adolescent encouraged and participated in the discussion of the reasons behind the conflict and displayed examples of autonomy promoting behaviors fairly often. This can be exemplified by the use of 2 simple points or 1 simple or at least 1 supported point. Vague points should be used sparingly.

A lot (5) The teen consistently encouraged discussion of the differences of opinion and/or perspective between the parent and adolescent. A rating of 5 should be given if the adolescent provides at least 2 supported points. Simple points are rarely used by themselves and vague points are not discussed at length.

Adolescent Engaging Behaviors—Relational Behaviors

Relational scores measure adolescents' verbal and non-verbal responsiveness as a listener to their parents' verbalizations. These actions are meant to be rapport building and also encompass a series of attending behaviors. Active listening behaviors are distinct from relational behaviors in that the former constitutes what is said in the discussion where the latter characterizes how the discussion is conducted. For example, asking an open- or closed-ended question would be rated under the Active Listening construct. However, the manner or tone used to ask the question (i.e., *how* the question is asked) would fall under the Relational Behaviors section. In the hierarchy of behaviors, Relational Behaviors encompass those actions that establish or bolster the relationship between the two family members while Active Listening Behaviors demonstrate *engagement* in the discussion. For example, during the interaction task, a teen may demonstrate reflective silence, complimenting, humor, verbal or physical affection, verbal encouragers ("uh-huh, hm-mm, go on," etc.), non-verbal encouragers (nodding head), or appropriate tone of voice. The sincerity of each of these behaviors must be considered when attributing a score.

Rarely (1) The teen rarely, if ever, used any manifestation of the relational behaviors.

A little bit (2) The adolescent infrequently displayed examples of the relational behaviors. There may be some sincere positive tone or warmth or sporadic use of encouragers (verbal and/or non-verbal). There was a seldom use of one, or some combination, of relational behaviors.

Somewhat (3) The teen displayed examples of sincere relational behaviors intermittently. This is exhibited by the occasional use of at least one or some combination of relational and/or attending behaviors. Or, he or she had to display at least one relational behavior no more than half of the time of the interaction. However, this one relational behavior must also be considered to be sincere during the entire time frame it is exhibited. If not, a score of 2 must be given.

Quite a bit (4) The teen displayed examples of sincere relational behaviors fairly often. This can be exemplified by the fairly frequent use of any combination of sincere relational behaviors. Or, the teen had to display at least one relational behavior, or any combination of relational behaviors, more often than not during the interaction task. However, this behavior or combination of behaviors must be judged to be sincere during the entire time frame it is demonstrated. If a behavior, or combination of behaviors were displayed more often than not during the task but was deemed sincere only half the time it was exhibited, then a rating of 3 should be given.

A lot (5) The adolescent exhibited examples of relational behaviors throughout the interaction task on a consistent basis. The participant had to display at least one, or some combination of relational behaviors throughout the entire interaction task. However, this behavior or combination of behaviors must be judged to be sincere during the entire time frame it is demonstrated. If a behavior, or combination of behaviors were displayed consistently throughout

the task but were deemed sincere only a majority of the time it was exhibited, then a rating of 4 should be given.

Adolescent Disengaging Behaviors—Hostile Behaviors

This scale reflects the extent to which an adolescent directs hostile, angry, critical, rejecting, or discounting behavior towards the parent's opinions, behaviors, and/or personal characteristics.

An adolescent demonstrating hostile behaviors may express unqualified disapproval or criticism of his or her parent's personal characteristics. Criticism of parental behavior should be considered in this category. Hostile statements (i.e., malicious teasing, cursing, harsh criticism) would understandably cause the parent to feel hurt, irritated, or worse about him/herself. However, these behaviors do not include adolescent expressions of mere displeasure with the parent. Instead, they are insulting, derogatory, or threatening. A teenager may accuse or place undue blame on the parent or be particularly insensitive to or dismissive of a parent's opinions, feelings, and/or situation.

Rarely (1) The adolescent rarely used any manifestation of hostile behaviors.

A little bit (2) The teen infrequently exhibited one, or some combination, of hostile behaviors.

Somewhat (3) The teenager exhibited an occasional use of at least one or some combination of, hostile behavior(s) no more than half of the time of the interaction.

Quite a bit (4) The adolescent exhibited a fairly frequent use of hostile behaviors. Or, the teen displayed at least one hostile behavior, or any combination of hostile behaviors, more often than not during the interaction task.

A lot (5) The teen consistently utilized hostile behaviors throughout the interaction task. Or, the adolescent displayed at least one, or some combination of hostile behaviors throughout the entire interaction task.

Adolescent Disengaging Behaviors—Controlling Behaviors

Controlling behaviors measure the degree to which the adolescent attempts to control or influence what is discussed during the interaction task, how the discussion proceeds, and/or what the parent may discuss, believe, or feel during the interaction task.

An adolescent may lecture or shame the parent on how to think, act, or feel in a way that assumes superiority and discourages the parent's ability to respond, initiate discussions, or think independently. This could also manifest as the teenager talking most of the time, interrupting the parent, ignoring his or her opinion, or minimizing the validity of the parent's feelings or beliefs. Controlling behaviors reflect an adolescent agenda to dictate the

discussion and/or outcome of the interaction. Interjections should not be considered as part of this section; only those interruptions that purposely cut off the parent should be included.

Rarely (1) The adolescent rarely used any manifestation of controlling behaviors and did not appear to have any sort of agenda.

A little bit (2) The teenager infrequently exhibited one, or some combination, of controlling behaviors. He or she may display a brief instance of attempting to dominate the discussion.

Somewhat (3) The adolescent exhibited an occasional use of at least one or some combination of, controlling behavior(s). Or, he or she displayed at least one controlling behavior no more than half of the time of the interaction. The teen may have some sort of agenda for the discussion, but the parent is given reasonable opportunity to express opinions and/or feelings.

Quite a bit (4) The teen exhibited a fairly frequent use of controlling behaviors with a fairly obvious desire to direct the conversation. Or, the adolescent displayed at least one controlling behavior, or any combination of controlling behaviors, more often than not during the interaction task. The adolescent does the majority of the talking with the parent being given sporadic opportunities to contribute to the discussion.

A lot (5) The teen consistently utilized controlling behaviors throughout the interaction task. Or, the adolescent displayed at least one, or some combination of controlling behaviors throughout the entire interaction task. It is completely obvious that the teenager has an agenda and forcefully attempts to dominate the discussion. The parent has rare opportunities to engage in discussion.

Adolescent Disengaging Behaviors—Withdrawal Behaviors

This scale is intended to capture the extent to which the adolescent physically or verbally orients him/herself away from the parent in such a way so as to avoid discussion of issue of disagreement.

This blocking of communication may manifest as adolescent stonewalling, tense silence, defiance, or willful avoidance of certain topics. Additionally, a teenager may physically turn his or her body so that he or she is no longer facing the parent. Reluctance to discuss certain topics because of shyness or nervousness should not be considered for this section of behaviors. A lack of concern and disregard for the discussion should be present.

Rarely (1) The adolescent rarely used any manifestation of withdrawal behaviors. He or she actively participated in the interaction task.

A little bit (2) The teenager infrequently exhibited one, or some combination, of withdrawal behaviors. He or she may display a brief instance of attempting to withdraw

from the discussion.

Somewhat (3) The teen exhibited an occasional use of at least one or some combination of, withdrawal behavior(s). Or, he or she displayed at least one withdrawal behavior no more than half the time of the interaction. The adolescent may attempt to block discussion of some topic.

Quite a bit (4) The adolescent exhibited a fairly frequent use of withdrawal behaviors with a fairly obvious desire to avoid the conversation. Or, the adolescent displayed at least one withdrawal behavior, or any combination of withdrawal behaviors, more often than not during the interaction task. The parent does the majority of the talking with minimal, willing input from the adolescent.

A lot (5) The adolescent consistently utilized withdrawal behaviors throughout the interaction task so as to avoid discussing the assigned topic. Or, the teen displayed at least one, or some combination of withdrawal behaviors throughout the entire interaction task. It is completely obvious that the adolescent did not wish to take part in any sort of discussion and actively avoided doing so.

APPENDIX II:

**Parent-Adolescent Conflict Resolution Strategies
Global Rating Sheet**

Coder: _____
Tape #: _____

Adolescent's Sex: _____
Parent's Sex: _____

Topic of Conflict:

Rated First: Parent Adolescent

Observations

Scores	Engaging Behaviors					
	Parent			Adolescent		
	<i>Active Listening</i>	<i>Autonomy Promoting</i>	<i>Relational</i>	<i>Active Listening</i>	<i>Autonomy Expressing</i>	<i>Relational</i>
1st Viewing						
2nd Viewing						

Scores	Disengaging Behaviors					
	Parent			Adolescent		
	<i>Hostile</i>	<i>Controlling</i>	<i>Withdrawal</i>	<i>Hostile</i>	<i>Controlling</i>	<i>Withdrawal</i>
1st Viewing						
2nd Viewing						

Conflict intensity: the display of negative emotion characterizing the overt expression of differences.

How emotionally intense would you rate the conflict interaction task for the parent and adolescent separately (i.e., the degree of negative emotion expressed)?

Parent: _____

Adolescent: _____

Not at all Intense (no negative emotion) 1	A Little Intense 2	Somewhat Intense (some negative emotion displayed) 3	Quite a Bit Intense 4	A Lot Intense (a lot of neg emtn) 5
--	-----------------------	--	--------------------------	---

Notes

REFERENCES

- Adams, R., & Laursen, B. (2001). The organization and dynamics of adolescent conflict with parents and friends. *Journal of Marriage and Family*, *63*, 97-110. doi:10.1111/j.1741-3737.2001.00097.x
- Allen, J. P., Aber, J., & Leadbeater, B. J. (1990). Adolescent problem behaviors: The influence of attachment and autonomy. *Psychiatric Clinics of North America*, *13*, 455-467.
- Allen, J. P., Hauser, S., Bell, K., & O'Connor, T. (1994). Longitudinal assessment of autonomy and relatedness in adolescent-family interactions as predictors of adolescent ego development and self-esteem. *Child Development*, *65*, 179-194. doi:10.2307/1131374
- Allen, J. P., Hauser, S., Eickholt, C., Bell, K., & O'Connor, T. (1994). Autonomy and relatedness in family interactions as predictors of expressions on negative adolescent affect. *Journal of Research on Adolescence*, *4*, 535-552. doi:10.1207/s15327795jra0404_6
- Allen, J. P., Hauser, S. T., O'Connor, T. G., Bell, K. L., & Eickholt, C. (1996). The connection of observed hostile family conflict to adolescents' developing autonomy and relatedness with parents. *Development and Psychopathology*, *8*, 425-442. doi:10.1017/S0954579400007173
- Allen, J. P., McElhaney, K., Land, D., Kuperminc, G., Moore, C., O'Beirne-Kelly, H., & Kilmer, S. (2003). A secure base in adolescence: Markers of attachment security in the mother-adolescent relationship. *Child Development*, *74*, 292-307. doi:10.1111/1467-8624.t01-1-00536
- Almeida, D. M., Wethington, E., & Chandler, A. L. (1999). Daily transmission of tensions between marital dyads and parent-child dyads. *Journal of Marriage and the Family*, *61*, 49-61. doi:10.2307/353882
- Angold, A., Costello, E. J., Messer, S. C., Pickles, A., Winder, F., & Silver, D. (1995). Development of a short questionnaire for use in epidemiological studies of depression in children and adolescents. *International Journal of Methods in Psychiatric Research*, *5*, 237-249.
- Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. *American Psychologist*, *54*, 317-326. doi:10.1037/0003-066X.54.5.317
- Aspland, H., & Gardner, F. (2003). Observational measures of parent-child interaction: An introductory review. *Child and Adolescent Mental Health*, *8*, 136-143. doi:10.1111/1475-3588.00061

- Bloom, B. (1985). A factor analysis of self-report measures of family functioning. *Family Process, 24*, 225-239.
- Bowlby, J. (1980). *Attachment and loss: Loss, sadness and depression (vol. 3)*. New York: Basic Books.
- Bomar, J., & Sabatelli, R. (1996). Family system dynamics, gender, and psychosocial maturity in late adolescence. *Journal of Adolescent Research, 11*, 421-439. doi:10.1177/0743554896114003
- Branje, S. (2008). Conflict management in mother-daughter interactions in early adolescence. *Behaviour, 145*, 1627-1651. doi:10.1163/156853908786131315
- Branje, S., van Doorn, M., van der Valk, I., & Meeus, W. (2009) Parent adolescent conflicts, conflict resolution types, and adolescent adjustment. *Journal of Applied Developmental Psychology, 30*, 195-204. doi:10.1016/j.appdev.2008.12.004
- Brody, G. H., & Ge, X. (2001). Linking parenting processes and self-regulation to psychological functioning and alcohol use during early adolescence. *Journal of Family Psychology, 15*, 82-94. doi:10.1037/0893-3200.15.1.82
- Brown, B. B. (2004). Adolescents' relationships with peers. In R. Lerner & L. Steinberg (Eds.), *The handbook of adolescent psychology* (pp.364-394). Hoboken, New Jersey: John Wiley & Sons.
- Buhrmester, D. (1992). The developmental courses of sibling and peer relationships. In F. Boer, & J. Dunn (Eds.), *Children's sibling relationships: Developmental and clinical issues* (pp. 19-40). Hillsdale, NJ England: Lawrence Erlbaum Associates, Inc.
- Collins, W.A. (1997). Relationships and development during adolescence: Interpersonal adaptation to individual change. *Personal Relationships, 4*, 1-14.
- Collins, W. A., & Laursen, B. (2004). Parent-adolescent relationships and influences. In R. Lerner & L. Steinberg (Eds.), *The handbook of adolescent psychology* (pp. 331-362). New York, NY: Wiley.
- Collins, W., & Russell, G. (1991). Mother-child and father-child relationships in middle childhood and adolescence: A developmental analysis. *Developmental Review, 11*, 99-136. doi:10.1016/0273-2297(91)90004-8
- Collins, W. A., & Steinberg, L. (2006). Adolescent development in interpersonal context. In N. Eisenberg (Ed.), *Social, emotional, and personality development: Handbook of child psychology* (pp. 1003-1067). New York, NY: Wiley.
- Conger, R. D., & Ge, X. (1999). Conflict and cohesion in parent-adolescent relations:

- Changes in emotional expression from early to midadolescence. In M. J. Cox, & J. Brooks-Gunn (Eds.), *Conflict and cohesion in families: Causes and consequences* (pp. 185-206). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Cox, M. J., & Owen, M. (2006). Age 15 parent-adolescent interaction coding system. Unpublished manual.
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, *48*, 243-267. doi:10.1146/annurev.psych.48.1.243
- Cummings, E. M., & Davies, P. (1994). *Children and marital conflict: The impact of family dispute and resolution*. New York: Guilford Press.
- Cummings, E. M., Davies, P., & Simpson, K. S. (1994). Marital conflict, gender, and children's appraisals and coping efficacy as mediators of child adjustment. *Journal of Family Psychology*, *8*, 141-149. doi:10.1037/0893-3200.8.2.141
- Cummings, E. M., Iannotti, R. J., & Zahn-Waxier, C. (1985). The influence of conflict between adults on the emotions and aggression of young children. *Developmental Psychology*, *21*, 495-507. doi:10.1037/0012-1649.21.3.495
- Cummings, E. M., Vogel, D., Cummings, J. S., & El-Sheikh, M. (1989). Children's responses to different forms of anger between adults. *Child Development*, *60*, 1392-1404. doi:10.2307/1130929
- Dallaire, D. H., Pineda, A. Q., Cole, D. A., Ciesla, J. A., Jacquez, F., LaGrange, B., & Bruce, A. E. (2006). Relation of positive and negative parenting to children's depressive symptoms. *Journal of Clinical Child and Adolescent Psychology*, *35*, 313-322. doi:10.1207/s15374424jccp3502_15
- Eddy, J. M., Dishion, T., & Stoolmiller, M. (1998). The analysis of intervention change in children and families: Methodological and conceptual issues embedded in intervention studies. *Journal of Abnormal Child Psychology*, *26*, 53-71. doi:10.1023/A:1022634807098
- Eisenberg, N., Gershoff, E., Fabes, R. A., Shepard, S. A., Cumberland, A. J., Losoya, S. H., Guthrie, I. K., & Murphy, B. C. (2001). Mother's emotional expressivity and children's behavior problems and social competence: Mediation through children's regulation. *Developmental Psychology*, *37*, 475-490. doi:10.1037/0012-1649.37.4.475
- Eisenberg, N., Hofer, C., Spinrad, T. L., Gershoff, E. T., Valiente, C., Losoya, S. H., Zhou, Q., Cumberland, A., Liew, J., Reiser, M., Maxon, E., Smetana, J. G., & Darling, N. (2008). Understanding mother-adolescent conflict discussions: Concurrent and across-time prediction from youths' dispositions and parenting: II. sample and measures. *Monographs of the Society for Research in Child Development*, *73*, 31-53. doi:10.1111/j.1540-5834.2008.00472.x

- Ellis-Schwabe, M., & Thornburg, H. D. (1986). Conflict areas between parents and their adolescents. *Journal of Psychology: Interdisciplinary and Applied*, *120*, 59-68. doi:10.1080/00223980.1986.9712616
- Emery, R. (1992). Family conflicts and their developmental implications: A conceptual analysis of meanings for the structure of relationships. In C. Shantz & W. Hartup (Eds.), *Conflict in child and adolescent development* (pp. 270–298). New York, NY: Cambridge University Press.
- Eysenck, S. B. G., Easting, G., & Pearson, P. R. (1984). Age norms for impulsiveness, venturesomeness and empathy in children. *Personality and Individual Differences*, *5*, 315-321.
- Farrell, A. D., Kung, E. M., White, K. S., Valois, R. F. (2000). The structure of self-reported aggression, drug use, and delinquent behaviors during early adolescence. *Journal of Clinical Child Psychology*, *29*, 282-292. doi:10.1207/S15374424jccp2902_13
- Fava, J. L., & Velicer, W. F. (1992). The effects of overextraction on factor and component analysis. *Multivariate Behavioral Research*, *27*, 387-415. doi:10.1207/s15327906mbr2703_5
- Forehand, R., Brody, G., Slotkin, J., Fauber, R., McCombs, A., & Long, N. (1988). Young adolescent and maternal depression: Assessment, interrelations, and family predictors. *Journal of Consulting and Clinical Psychology*, *56*(3), 422-426. doi:10.1037/0022-006X.56.3.422
- Furman, W., & Buhrmester, D. (1989). Age and sex differences in perceptions of networks of personal relationships. *Child Development*, *63*, 102-115.
- Gardner, F. (2000). Methodological issues in the direct observation of parent-child interaction: Do observational findings reflect the natural behavior of participants? *Clinical Child and Family Psychology Review*, *3*, 185-198. doi:10.1023/A:1009503409699
- Garvey, C. (1984). *Children's talk*. Cambridge, MA: Harvard University Press.
- Ge, X., Best, K. M., Conger, R. D., & Simons, R. L. (1996). Parenting behaviors and the occurrence and co-occurrence of adolescent depressive symptoms and conduct problems. *Developmental Psychology*, *32*, 717-731. doi:10.1037/0012-1649.32.4.717
- Greenberger, E., & Chen, C. (1996). Perceived family relationships and depressed mood in early and late adolescence: A comparison of European and Asian Americans. *Developmental Psychology*, *32*, 707-716.
- Grotevant, H. (1997). Adolescent development in family contexts. In N. Eisenberg (Ed.),

- Social, emotional, and personality development: Handbook of child psychology* (5th ed., Vol. 3, pp. 1097-1149). New York, NY: Wiley.
- Hale, W., VanderValk, I., Akse, J., & Meeus, W. (2008). The interplay of early adolescents' depressive symptoms, aggression and perceived parental rejection: A four-year community study. *Journal of Youth and Adolescence*, *37*, 928-940. doi:10.1007/s10964-008-9280-0
- Hall, G. S. (1904). *Adolescence: Its psychology, and its relations to physiology, anthropology, sociology, sex, crime, religion and education*. New York, NY: Appleton.
- Harter, S. (1988). *Manual for the self-perception profile for adolescents*. Denver, CO: University of Denver.
- Hay, D. F. (1984). Social conflict in early childhood. In G. Whitehurst (Ed.), *Annals of child development* (Vol. 1, pp. 1-44). Greenwich, CT: JAI Press.
- Hussong, A. M. (2005). [Documentation for Analyses, Codebook for the High School Transition Study]. Unpublished raw data.
- Jaffee, W. B., & D'Zurilla, T. J. (2003). Adolescent problem solving, parent problem solving, and externalizing behavior in adolescents. *Behavior Therapy*, *34*, 295-311. doi:10.1016/S0005-7894(03)80002-3
- Inger, M. (1991). *Conflict resolution programs in schools*. New York, NY.
- Jenkins, S., Goodness, K., & Buhrmester, D. (2002). Gender differences in early adolescents relationship qualities, self-efficacy, and depression symptoms. *The Journal of Early Adolescence*, *22*(3), 277-309. doi:10.1177/02731602022003003
- Jessor, R., & Jessor, S. L. (1997). *Problem behavior and psychosocial development: A longitudinal study of youth*. New York, NY: Academic.
- Kauffman, D., Gaston, E., Santa Lucia, R., Salcedo, O., Rendina-Gobioff, G., & Gadd, R. (2000). The relationship between parenting style and children's adjustment: The parents' perspective. *Journal of Child and Family Studies*, *9*, 231-245. doi:10.1023/A:1009475122883
- Khaleque, A., & Rohner, R. P. (2002). Perceived parental acceptance rejection and psychological adjustment: A meta analysis of cross cultural and intracultural studies. *Journal of Marriage and Family*, *64*, 54-64. doi:10.1111/j.1741-3737.2002.00054.x
- Kobak, R., Cole, H. E., Ferenz-Gillies, R., & Fleming, W. S. (1993). Attachment and emotion regulation during mother-teen problem solving: A control theory analysis. *Child Development*, *64*, 231-245. doi:10.2307/1131448

- Kobak, R., Sudler, N., & Gamble, W. (1991). Attachment and depressive symptoms during adolescence: A developmental pathways analysis. *Development and Psychopathology*, 3, 461-474. doi:10.1017/S095457940000763X
- Kolbe, L. D., Kann, L., & Collins, J. L. (1993). Overview of the youth risk behavior surveillance system. *Public Health Reports*, 108(suppl. 1), 2-10.
- Kraaij, V., Garnefski, N., de Wilde, E., Dijkstra, A., Gebhardt, W., Maes, S., & ter Doest, L. (2003). Negative life events and depressive symptoms in late adolescence: Bonding and cognitive coping as vulnerability factors? *Journal of Youth and Adolescence*, 32, 185-193. doi:10.1023/A:1022543419747
- Kurdek, L. A. (1994). Conflict resolution styles in gay, lesbian, heterosexual nonparent, and heterosexual parent couples. *Journal of Marriage and the Family*, 56, 705-722. doi:10.2307/352880
- Larson, R., & Lampan-Petratis, C. (1989). Daily emotional states as reported by children and adolescents. *Child Development*, 60, 1250-1260. doi:10.2307/1130798
- Laursen, B. (1995). Conflict and social interaction in adolescent relationships. *Journal of Research on Adolescence*, 5, 55-70. doi:10.1207/s15327795jra0501_3
- Laursen, B., & Collins, W. A. (1994). Interpersonal conflict during adolescence. *Psychological Bulletin*, 115, 197-209. doi:10.1037/0033-2909.115.2.197
- Laursen, B., & Collins, W. A. (2009). Parent-child relationships during adolescence. In R. Lerner & L. Steinberg (Eds.), *The handbook of adolescent psychology* (pp. 3-42). New Jersey: Wiley.
- Laursen, B., Coy, K. C., & Collins, W. A. (1998). Reconsidering changes in parent-child conflict across adolescence: A meta-analysis. *Child Development*, 69(3), 817-832.
- Lewinsohn, P. M., Roberts, R. E., Seeley, J. R., Rohde, P., Gotlib, I. H., & Hops, H. (1994). Adolescent psychopathology: II. Psychosocial risk factors for depression. *Journal of Abnormal Psychology*, 103(2), 302-315. doi:10.1037/0021-843X.103.2.302
- Loehlin, J. C. (1992). *Latent variable models: An introduction to factor, path, and structural analysis (2nd ed.)*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Lubin, B., Denman, N., & Van Whitlock, R. (1998). Measuring the mood of seventh-grade Students with the MAACL-R6. *Adolescence*, 33(131), 583-590.
- Lundell, L. J., Grusec, J. E., McShane, K. E., & Davidov, M. (2008). Mother-adolescent conflict: Adolescent goals, maternal perspective-taking, and conflict intensity.

- Journal of Research on Adolescence*, 18, 555-571. doi:10.1111/j.1532-7795.2008.00571.x
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen (Ed.), *Handbook of child psychology* (4th Ed., Vol. 4, pp. 1–101). New York: Wiley.
- Margolese, S. K., Markiewicz, D., & Doyle, A. (2005). Attachment to parents, best friend, and romantic partner: Predicting different pathways to depression in adolescence. *Journal of Youth and Adolescence*, 34, 637-650. doi:10.1007/s10964-005-8952-2
- Margolin, G., Oliver, P. H., Gordis, E. B., O'Hearn, H. G., Medina, A. M., Ghosh, C. M., & Morland, L. (1998). The nuts and bolts of behavioral observation of marital and family interaction. *Clinical Child and Family Psychology Review*, 1, 195-213. doi:10.1023/A:1022608117322
- Melby, J. N., Conger, R. D., Book, R., Rueter, M., Lucy, L., Repinski, D., Rogers, S., Rogers, B., & Scaramella, L. (1998). The Iowa Family Interaction Rating scales (5th ed). Unpublished manuscript, Institute for Social and Behavioral Research, Iowa State University, Ames.
- Milevsky, A., Schlechter, M., Netter, S., & Keehn, D. (2007). Maternal and paternal parenting styles in adolescents: Associations with self-esteem, depression and life-satisfaction. *Journal of Child and Family Studies*, 16, 39-47. doi:10.1007/s10826-006-9066-5
- Olson, D. (2011). FACES IV and the Circumplex Model: Validation study. *Journal of Marital and Family Therapy*, 37, 64-80. doi:10.1111/j.1752-0606.2009.00175.x
- Olson, D. H., McCubbin, H. I., Barnes, H., Larsen, A., Muxen, M., & Wilson, M. (1985). *Family Inventories*. St. Paul, MN: University of Minnesota Press.
- Overbeek, G., Stattin, H., Vermulst, A., Ha, T., & Engels, R. (2007). Parent-child relationships, partner relationships, and emotional adjustment: A birth-to-maturity prospective analysis. *Developmental Psychology*, 43, 429-437. doi:10.1037/0012-1649.43.2.429
- Parker, G. G. (1993). Parental rearing style: Examining for links with personality vulnerability factors for depression. *Social Psychiatry and Psychiatric Epidemiology*, 28, 97-100. doi:10.1007/BF00801738
- Patterson, J. M., & McCubbin, H. I. (1987). Adolescent coping style and behaviors: Conceptualization and measurement. *Journal of Adolescence*, 10, 163-186. doi:10.1016/S0140-1971(87)80086-6
- Pelton, J., & Forehand, R. (2001). Discrepancy between mother and child perceptions of their

- relationship: I. Consequences for adolescents considered within the context of parental divorce. *Journal of Family Violence*, *16*, 1-15.
doi:10.1023/A:1026527008239
- Reed, J. S., & Dubow, E. F. (1997). Cognitive and behavioral predictors of communication in clinic-referred and nonclinical mother-adolescent dyads. *Journal of Marriage & the Family*, *59*, 91-102. doi:10.2307/353664
- Richters, J. (1992). Depressed mothers as informants about their children: A critical review of the evidence for distortion. *Psychological Bulletin*, *112*, 485-499.
doi:10.1037/0033-2909.112.3.485
- Robin, A. L. (1985). *Annual program report for 1985: Parent-child stress*. Report to William T. Grant Foundation. Detroit, MI: Author.
- Robin, A. L., & Foster, S. L. (2003). *Negotiating parent-adolescent conflict: A behavioral-family systems approach*. New York, NY: The Guilford Press.
- Robin, A. L., Koepke, T., & Moye, A. (1986). *Multidimensional assessment of parent-adolescent relations*. Unpublished manuscript.
- Rubenstein, J. L., & Feldman, S. S. (1993). Conflict-resolution behavior in adolescent boys: Antecedents and adaptational correlates. *Journal of Research on Adolescence*, *3*, 41-66. doi:10.1207/s15327795jra0301_3
- Sandy, S.V. & Cochran, K. (2000). The development of conflict resolution skills in children: Preschool to adolescence. In M. Deutsch & P. Coleman (eds.), *The handbook of conflict resolution: Theory and practice*. San Francisco, CA: Jossey-Bass.
- SAS Institute Inc. (2010). *SAS documentation, Version 9.2*. Cary, NC: SAS Institute Inc.
- Shanahan, L., McHale, S. M., Crouter, A. C., & Osgood, D. W. (2007). Conflict frequency with mothers and fathers from middle childhood to later adolescence: Within- and between-families comparisons. *Developmental Psychology*, *43*, 539-550.
doi:10.1037/0012-1649.43.3.539
- Shantz, C. U. (1987). Conflict between children. *Child Development*, *58*, 283-305.
doi:10.2307/1130507
- Shek, D. T. L. (1997). The relation of parent-adolescent conflict to adolescent psychological well-being, school adjustment, and problem behavior. *Social Behavior and Personality*, *25*, 277-290. doi:10.2224/sbp.1997.25.3.277
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, *86*, 420-428. doi:10.1037/0033-2909.86.2.420

- Smetana, J. G. (1988). Adolescents' and parents' conceptions of parental authority. *Child Development, 59*, 321-335. doi:10.2307/1130313
- Smetana, J. G. (1995). Context, conflict, and constraint in adolescent-parent authority relationships. In M. Kellen & D. Hart (Eds.), *Morality in everyday life: Developmental perspectives* (pp. 225-255). Cambridge, UK: Cambridge University Press.
- Smetana, J. G. (1996). Adolescent-parent conflict: Implications for adaptive and maladaptive development. In D. Cicchetti, S. L. Toth, D. Cicchetti, S. L. Toth (Eds.), *Adolescence: Opportunities and challenges* (pp. 1-46). Rochester, NY: University of Rochester Press.
- Smetana, J.G. (2000). Middle-class African American adolescents' and parents' conceptions of parental authority and parenting practices: A longitudinal investigation. *Child Development, 71*, 1672-1686. doi:10.1111/1467-8624.00257
- Smetana, J. G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. In S. T. Fiske, A. E. Kazdin, & D. L. Schacter (Eds.), *Annual review of psychology* (Vol. 57, pp. 255-284). Palo Alto, CA: Annual Review Press.
- Spector, P. E. (1987). Method variance as an artifact in self-reported affect and perceptions at work: Myth or significant problem? *Journal of Applied Psychology, 3*, 438-443. doi:10.1037/0021-9010.72.3.438
- Spoth, R., Nepl, T., Goldberg-Lillehoj, C., Jung, T., & Ramisetty-Mikler, S. (2006). Gender-related quality of parent-child interactions and early adolescent problem behaviors: Exploratory study with midwestern samples. *Journal of Family Issues, 27*, 826-849. doi:10.1177/0192513X05285614
- Steiger, J. H. (1980). Tests for comparing elements of a correlation matrix. *Psychological Bulletin, 87*, 245-251. doi:10.1037/0033-2909.87.2.245
- Steinberg, L. (2001). We know some things: Adolescent-parent relationships in retrospect and prospect. *Journal of Research on Adolescence, 11*, 1-19. doi:10.1111/1532-7795.00001
- Steinberg, L., Mount, N. S., Lamborn, S. D., & Dornbusch, S. (1991). Authoritative parenting and adolescent adjustment across varied ecological niches. *Journal of Research on Adolescence, 1*, 19-36. doi: 10.1111/1532-7795.ep11522650
- Steinhausen, H. C., & Metzke, C. W. (2001). Risk, compensatory, vulnerability, and protective factors influencing mental health in adolescence. *Journal of Youth and Adolescence, 30*, 259-280. doi:10.1023/A:1010471210790

- Tucker, C. J., McHale, S. M., & Crouter, A. C. (2003). Conflict resolution: Links with adolescents' family relationships and individual well-being. *Journal of Family Issues*, *24*, 715-736. doi:10.1177/0192513X03251181
- Van Doorn, M. D., Branje, S. T., & Meeus, W. J. (2011). Developmental changes in conflict resolution styles in parent–adolescent relationships: A four-wave longitudinal study. *Journal of Youth and Adolescence*, *40*, 97-107. doi:10.1007/s10964-010-9516-7
- Vuchinich, S. (1987). Starting and stopping spontaneous family conflicts. *Journal of Marriage and Family*, *49*(3), 591-601.
- Vuchinich, S., Emery, R. E., & Cassidy, J. (1988). Family members and third parties in dyadic family conflict: Strategies, alliances, and outcomes. *Child Development*, *59*, 1293-1302. doi:10.2307/1130492
- White, J. L., Moffitt, T. E., Caspi, A., Bartusch, D. J., Needles, D. J., & Stouthamer-Loeber, M. (1994). Measuring impulsivity and examining its relationship to delinquency. *Journal of Abnormal Psychology*, *103*, 192-205.