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AUTONOMY AND RELATEDNESS IN MOTHER-TEEN INTERACTIONS AS PREDICTORS OF INVOLVEMENT IN ADOLESCENT DATING AGGRESSION

by

PHYLLIS HOLDITCH NIOLON

Under the Direction of Gabriel P. Kuperminc, Ph.D.

ABSTRACT

This study examined autonomy and relatedness in mother adolescent interactions as longitudinal predictors of adolescent involvement in dating aggression. Research indicates that dating aggression, defined as perpetration and/or victimization of physical, psychological, or sexual aggression, affects one-third to two-thirds of adolescents. Most studies of adolescent dating aggression have been cross-sectional, have lacked a developmental theoretical perspective, and have not adequately investigated contextual differences in dating aggression. This study adds to the existing literature in that it applies a developmental framework to a multi-method, longitudinal study (n=88) of adolescent dating aggression. Adolescents' and their mothers' demonstrations of support for and inhibition of autonomy and relatedness during a coded interaction task observed when adolescents were 16 years old were examined as predictors of adolescents' reports of perpetration and victimization of physical and psychological aggression two years later, exploring gender, race/ethnicity, and environmental risk as moderators. It was expected that promotion of autonomy and relatedness would be negatively related to

adolescent reports of involvement in dating aggression, whereas inhibition of autonomy and relatedness would be positively related to adolescent reports of dating aggression.

Hierarchical multiple regressions revealed that, as expected, maternal inhibition of relatedness predicted slight increases in reports of psychological perpetration and victimization. However, maternal *support* for autonomy was related to *increases* in perpetration of psychological aggression for all adolescents and increases in perpetration and victimization of physical aggression for girls, but not boys. Adolescent support for autonomy was related to increases in perpetration of physical aggression only for environmentally at-risk teens and to increases in psychological perpetration for racial/ethnic minority participants, but not for Caucasians. It was also found that girls reported more physical and psychological perpetration than boys, and that racial/ethnic minority participants reported more physical perpetration than Caucasians. Results indicate that autonomy is a dynamic developmental process that operates differently as a function of the various ecological contexts in which adolescents live, as marked by gender, race/ethnicity, and risk, in predicting adolescent involvement in dating aggression.

INDEX WORDS: Adolescent dating aggression, Autonomy, Relatedness, Gender, Race/ethnicity, Risk

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PHYLLIS HOLDITCH NIOLON

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

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2005

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2005

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Dedication

This dissertation is dedicated to my husband, Trey, who has spent his entire marriage as the spouse of a graduate student, and who is very ready to start spending evenings and weekends with his wife. Your love, support, encouragement, and willingness to give me the space and time I have needed to finish this dissertation have made this degree possible. I could not have done it without you, and I thank you for your patience and understanding.

This dissertation is also dedicated to my mother and father, Dale and John, who have encouraged my pursuit of this degree since I decided I wanted to do this in middle school. Without your constant love, encouragement, understanding and support, I could not have done this. You both mean the world to me, and I cannot imagine having accomplished this degree without you.

This dissertation is also dedicated to my "dissertation partner," Cathy "we don't need sleep" Lesesne. We have written our dissertations together from start to finish and have kept each other on track with our "crazy plan" timeline. I cannot thank you enough for all of your thoughts, ideas, critiques, editing, late-night discussion section phone calls, and encouragement. You kept me going at times when I felt discouraged, and I cannot imagine having gone through this process without your support. We are finishing together, defending one week apart.

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Autonomy and Relatedness in Mother-Teen Interactions as Predictors of Involvement in Adolescent Dating Aggression

Aggression within dating relationships is a significant problem facing adolescents, with prevalence estimates of either perpetration or victimization ranging from less than 10% to over half of adolescent samples (1994; Jezl, Molidor, & Wright, 1996; Molidor & Tolman, 1998; O'Keefe & Treister, 1998; O'Keeffe, Brockopp, & Chew, 1986). It has been argued that dating aggression puts adolescents at risk for physical injury, sexual victimization and negative psychological consequences (Foshee, 1996; O'Keefe & Treister, 1998; Silverman, Raj, Mucci, & Hathaway, 2001). In addition, although this assumption has never been empirically examined, many researchers predict that involvement in aggressive relationships in adolescence puts individuals at greater risk for perpetrating and/or experiencing aggression in more permanent intimate relationships in adulthood (Chase, Treboux, O'Leary, & Strassberg, 1998; Jackson, 1999; Jackson, Cram, & Seymour, 2000; Simmons, Lin, & Gordon, 1998; Wekerle & Wolfe, 1999). In short, the available evidence on adolescent dating aggression points to the importance of this problem and demonstrates the need for further attention from researchers and prevention and intervention practitioners alike.

Unfortunately, less is known about this adolescent health risk than about other problems that threaten adolescent health and well-being, such as delinquency, faltering academic achievement, substance use and abuse, early and risky sexual behavior, and early adolescent parenting. In the past two decades, adolescent dating aggression has received increasing attention from researchers, but research is still in its early phases. Many studies document the prevalence of perpetration and victimization of physical

aggression, and a few studies have examined rates of psychological and sexual aggression (Jackson, 1999). The literature has established that dating aggression is correlated with many other risk factors, such as low academic achievement (Bergman, 1992), low self-esteem (Jezl et al., 1996; O'Keefe & Treister, 1998), substance use, unhealthy weight control, sexual risk behavior, unwanted pregnancy, and suicidality (Silverman et al., 2001). Gender differences and similarities in perpetration and victimization have also been examined, but there remains much to be learned about the nature and meaning of the use and experience of violence for boys and for girls. Additionally, as many studies of dating aggression have used predominantly Caucasian, college student samples (Jackson, 1999), it is unclear the extent to which findings from those studies generalize to middle and high-school aged, minority, and socio-economically disadvantaged youth. Much work remains to be done in understanding the nature of this problem and how it affects different sectors of the adolescent population. To address some of the gaps in the current literature, one goal of the current study is to examine the role of gender, race/ethnicity, and environmental risk in predicting perpetration and victimization of dating aggression in an academically at-risk sample of high school students.

Perhaps one of the most important shortcomings of the literature on adolescent dating aggression is that it has remained primarily atheoretical. Few researchers have designed studies that examine the developmental pathways leading to perpetration or victimization of adolescent dating aggression, and therefore very little is known about the mechanisms that underlie adolescents' involvement in aggressive dating relationships. Understanding these developmental pathways to dating aggression is crucial to

prevention and intervention efforts with adolescents. The present study draws from the perspective of developmental psychopathology, which emphasizes the interplay of typical and atypical developmental processes in the development of problem behaviors rather than focusing on simple correlates of deviance (Cicchetti, 1984, 1990; Kuperminc & Brookmeyer, in press). Specifically, this study examines whether the ways in which adolescents navigate the developmental task of negotiating and maintaining autonomy and relatedness with their parents predicts their use and experience of physical and psychological aggression in their intimate relationships.

The establishment and maintenance of autonomy and relatedness with parents has been recognized by researchers as a crucial developmental task of adolescence (Allen, Aber, & Leadbeater, 1990; Allen & Hauser, 1996; Allen, Hauser, Bell, & O'Connor, 1994; Allen, Hauser, Eickholt, Bell, & O'Connor, 1994; Allen, Hauser, O'Connor, Bell, & Eickholt, 1996; Allen, Moore, & Kuperminc, 1997; J. P. Hill & Holmbeck, 1986). Current theorizing on adolescent autonomy and relatedness emphasizes the development of a certain level of independence and self-agency in relationships with parents while at the same time maintaining close emotional relationships with them. Research has established that failure to negotiate this task successfully is likely to result in negative outcomes, such as low self-esteem (Allen, Hauser, Bell, & O'Connor, 1994) and general violent behavior (Tate, 1999), both of which are associated with adolescent dating aggression (Bookwala, Frieze, Smith, & Ryan, 1992; Foshee, Linder, MacDougall, & Bangdiwala, 2001; Jezl et al., 1996; Malik, Sorenson, & Aneshensel, 1997; O'Keefe & Treister, 1998; Simons, Lin, & Gordon, 1998). This study is the first to explore the potential link between the negotiation of autonomy and relatedness and dating

aggression. Adolescents' and their mothers' behaviors relating to the promotion and inhibition of autonomy and relatedness exhibited during mid-adolescence were examined as predictors of perpetration and victimization of physical and psychological dating aggression in late adolescence. Additionally, gender, race, and socioeconomic risk were explored as potential moderators of those associations.

Literature Review

The current study examines the developmental task of the negotiation of autonomy and relatedness as a longitudinal predictor of adolescent involvement in dating aggression. Therefore, the literatures on adolescent dating aggression and on autonomy and relatedness are reviewed, noting research relevant to differences by gender, racial/ethnic and exposure to risk when available.

Defining Adolescent Dating Aggression

Before discussing the prevalence of adolescent dating aggression, defining what is most often referred to by the terms "physical, psychological, and sexual aggression" is helpful. Physical aggression is the focus of most studies on dating aggression and is often measured using the Conflict Tactics Scale (CTS; (Straus, 1979) or a modified version of it. Modifications to the CTS include adding items relevant to adolescent relationships or simplifying the frequency scale; items usually include behaviors such as pushing, grabbing, shoving, slapping, kicking, biting, hitting, hitting with an object, beating, chocking, purposely burning, and using a knife or a gun on the other. Some studies also examine psychological and sexual forms of dating aggression. Psychological aggression, also referred to as verbal or symbolic aggression, is also often measured using the CTS, and includes behaviors such as insulting, swearing, sulking, refusing to talk, stomping out of the room, doing something to spite the other, threatening physical violence, destroying objects, and threatening to use a knife or a gun. Sexual aggression is often measured using items developed by the researcher; sometimes with a single item asking about being forced to engage in sexual activity against one's will (Jezl et al., 1996), and in other instances with several items asking about unwanted sexual behaviors,

including kissing, hugging, French kissing, genital contact, and sexual intercourse (Jackson et al., 2000). Occasionally sexual aggression is discussed as a component of physical aggression (Jezl et al., 1996); however, in most studies, sexual aggression is conceptualized as separate from physical aggression (Jackson et al., 2000). Whereas this study will focus only on physical and psychological aggression in adolescent dating relationships, the literature on sexual aggression is reviewed briefly because of its relevance to the problem of dating aggression as a whole.

Perpetration and Victimization of Physical Aggression

Estimates of perpetration and victimization of physical aggression in high school and college samples vary widely. Studies conducted in the 1980's estimate that between 12 and 16% of high school and college students are involved in physically aggressive dating relationships (Henton, Cate, Koval, Lloyd, & Christopher, 1983; Makepeace, 1981). More recent studies indicate that between 30 and 60% of college students (Bookwala et al., 1992; Hamberger & Ambuel, 1998; Riggs & O'Leary, 1996; White & Koss, 1991) and between 25 and 40% of high school students (Avery-Leaf, Cascardi, O'Leary, & Cano, 1997; Malik et al., 1997; O'Keeffe et al., 1986) report perpetrating physical aggression against dating partners. Estimates of perpetration of physical aggression among behaviorally and economically at-risk high school samples are even higher and range between 45 and 66% (Chase et al., 1998; Niolon & Cook, in preparation). Alarmingly, the rates of self-reported perpetration exceed 20% even in middle and junior high school samples (Foshee, 1996).

As with perpetration, estimates of victimization of physical dating aggression vary widely. White and Koss (1991) found in a nationally representative sample of 4,707

college students that 35% of participants reported sustaining at least one act of physical aggression from a romantic partner in the past year. Some studies of high school samples have found self-reported rates of physical victimization as low as 12% and 15% (Bergman, 1992; Hird, 2000; Jackson et al., 2000), whereas other studies have found rates as high as 65% (Jezl et al., 1996; Niolon & Cook, in preparation; Peterson & Olday, 1992) and rates of sustaining *severe* physical abuse from a partner as high as 42% (Jezl et al., 1996). In the younger sample cited earlier, 38% of those 8th and 9th graders who had been on a date reported at least one incident of physical aggression from a dating partner (Foshee, 1996). In summary, rates of perpetration and victimization of dating aggression vary widely but clearly indicate that the prevalence of physical aggression in intimate relationships during adolescence is high.

Perpetration and Victimization of Psychological and Sexual Aggression

Aggression perpetrated or sustained in dating relationships is not limited to physical aggression. Many studies have also examined rates of psychological aggression, and estimates of perpetration and victimization in college and high school samples range from 50 to a staggering 96% (Hird, 2000; Jackson et al., 2000; Jezl et al., 1996; White & Koss, 1991). Although it is possible that the wide range of estimated rates is due to differences in definitions of psychological aggression, it is still evident that a large number of adolescents and young adults are engaging in psychologically aggressive behaviors in their dating relationships. Fewer studies have examined sexual aggression within adolescent dating relationships, due in part to the difficulty in getting permission from schools and parents to collect such information when the respondents are under the age of consent. Those studies that have been able to ask about sexual aggression have

found that between 15 and 60% of high school students report sustaining unwanted sexual activity from dating partners (Hird, 2000; Jackson et al., 2000; Jezl et al., 1996).

Gender and Racial/Ethnic Group Differences

Studies focusing on overall rates of perpetration and victimization may obscure potentially important gender and racial/ethnic group differences. However, findings from available research on these differences are inconclusive. With respect to physical aggression, some studies have found no gender differences in reports of perpetration and victimization (Foshee, 1996; Jenkins & Aube, 2002; Makepeace, 1986; Niolon & Cook, in preparation; O'Keefe & Treister, 1998; Stets & Pirog-Good, 1987; White & Koss, 1991). Where gender differences have been found, many studies have found that females report more perpetration than males (Avery-Leaf et al., 1997; Bookwala et al., 1992; Chase et al., 1998; Foo & Margolin, 1995; Foshee, 1996; Malik et al., 1997; O'Keefe & Treister, 1998; O'Keeffe et al., 1986; Shook, Gerrity, Jurich, & Segrist, 2000) and that males report more victimization of physical aggression than females (Hamberger & Ambuel, 1998; Jezl et al., 1996; Niolon & Cook, in preparation). However, some studies have found that females sustain more physical violence than males (Roscoe, Diana, & Brooks II, 1987; Stets & Pirog-Good, 1987). Findings of gender differences remain ambiguous even when severity of physical aggression is considered; some studies have found that males are more likely to perpetrate (Niolon & Cook, in preparation) and that females are more likely to sustain severe physical aggression (Molidor & Tolman, 1998), while others find that females are more likely to perpetrate severe aggression (Foshee, 1996) or that there are no gender differences in victimization (Foshee, 1996; Jezl et al., 1996).

With regard to psychological aggression, most studies examining perpetration and victimization have found no gender differences (Foshee, 1996; Jezl et al., 1996; Shook et al., 2000), although a few have found gender differences in either perpetration or victimization, but often in different directions (Bookwala et al., 1992; Foshee, 1996). Finally, although most studies on sexual aggression find that males are generally the perpetrators and females the victims (Bennett & Fineran, 1998; Foshee, 1996; Molidor & Tolman, 1998; O'Keefe & Treister, 1998; Shrier, Pierce, Emans, & DuRant, 1998), a few studies found that males and females reported sustaining similar amounts of sexual aggression in their dating relationships (Jackson et al., 2000; Jezl et al., 1996). Clearly, gender may be an important moderator of dating aggression, and the inconsistent findings regarding gender warrant further and thoughtful inquiry.

The research on racial/ethnic differences is not nearly as extensive as the research on gender differences, but the findings are similarly difficult to decipher. Some studies have found no racial or ethnic differences in perpetration or victimization of physical dating aggression (Foo & Margolin, 1995; O'Keeffe et al., 1986; White & Koss, 1991), whereas others have found that ethnic minority students report higher rates of perpetration and victimization, with the exception of Asian students, who report the lowest rates of dating aggression (Foshee et al., 2001; Howard & Wang, 2003; Makepeace, 1987; Malik et al., 1997). Other studies suggest that the link between race/ethnicity and dating aggression is complex and have found that the association disappears once other risk variables, such as economic strain or exposure to violence, are taken into account, or that the association is moderated by other variables (Malik et al., 1997; O'Keefe & Treister, 1998). For instance, O'Keefe and Treister (1998) found that

racial/ethnic differences were moderated by gender: African-American males were more likely than other males to report victimization and African-American females were more likely than other females to report perpetration of physical aggression against a dating partner (O'Keefe & Treister, 1998).

The lack of consistent findings regarding gender and racial/ethnic differences points to the possibility that these variables serve as markers for differential exposure to risks in the social environment (Bronfenbrenner, 1988), with levels of risk varying across samples. For example, some of the highest documented rates of self-reported perpetration and victimization of physical aggression were found in a predominantly African-American high school sample, but it is important to note that this sample was drawn from a high school where two-thirds of the students were eligible for federally subsidized school lunch – a marker of poverty status (Niolon & Cook, in preparation). One study that failed to find any differences in rates of dating aggression by ethnicity used a nationally representative college undergraduate sample, which can be assumed to represent young adults of a relatively high socioeconomic status (White & Koss, 1991). However, another study with an ethnically diverse high school sample found that African-Americans were more likely than all other ethnicities to report perpetration of dating violence, but this difference was no longer significant when exposure to community violence and exposure to family violence were accounted for (Malik et al., 1997). Similarly, inconsistent findings regarding gender differences in dating aggression may also be further clarified when differential exposure to community violence, exposure to family violence, and socioeconomic status are also considered. These findings suggest that the role of gender or race/ethnicity in dating aggression cannot be fully understood

unless considered in the context of other factors, such as socioeconomic and environmental risk.

Correlates of Dating Aggression

Research indicates that some risk factors are correlates of dating aggression for males and females, while other studies find separate correlates by gender. Researchers have examined a broad range of behavioral, psychological, and situational risk factors; however, as for research on the prevalence of dating aggression, the findings are inconsistent and the research has been largely atheoretical and acontextual.

Risk factors that have been found to be correlates of perpetration and victimization of dating aggression for males, females, or both, center around social norms, involvement in other facets of dating aggression, and ecological, behavioral, and psychological risk factors. With regard to social norms, Foshee and colleagues (2001) found that having friends who are perpetrators of dating aggression was correlated with perpetrating dating aggression. Other studies have found that having attitudes accepting of violence, either in general or in dating contexts, predicts both perpetration and victimization (Bookwala et al., 1992; Foshee et al., 2001; Malik et al., 1997; O'Keefe & Treister, 1998). Involvement in other forms of dating aggression is also a correlate of perpetration and victimization, in that perpetrators are more likely to be victims of dating aggression (O'Keefe & Treister, 1998) and victims are more likely to be perpetrators (Bookwala et al., 1992). In addition, perpetrating one form of dating aggression is associated with perpetrating other forms of aggression, e.g., perpetrators of physical aggression are more likely to perpetrate psychological and/or sexual aggression (Bookwala et al., 1992; Shook et al., 2000). Several ecological, behavioral, and

psychological risk factors have also been associated with dating aggression. Exposure to community violence (Foshee et al., 2001; Malik et al., 1997) and substance use (Buzy et al., 2004; Foshee et al., 2001; Howard & Wang, 2003; Malik et al., 1997; Shook et al., 2000) have been associated with both perpetration and victimization of dating aggression, and lower levels of empathy have been associated with perpetration (McCloskey & Lichter, 2003).

Some correlates of perpetration and victimization appear to be gender-specific. Studies have found several risk factors associated with female *perpetration* of aggression; these include having friends who are *victims* of dating aggression (Foshee et al., 2001), depressed affect (Foshee et al., 2001; McCloskey & Lichter, 2003), destructive responses to anger (Foshee et al., 2001), perpetrating violent behavior in other contexts (Bookwala et al., 1992; Foshee et al., 2001), and being from a single-parent or non-normative family structure (Malik et al., 1997). Risk factors for female *victimization* include: low grade point average (Bergman, 1992); multiple dating partners; frequent dating; (Bergman, 1992; O'Keefe & Treister, 1998; Reuterman & Burcky, 1989) reports of low satisfaction, high conflict, and seriousness in dating relationships (O'Keefe & Treister, 1998); low self-esteem (Jezl et al., 1996; O'Keefe & Treister, 1998); and behavioral risk factors including unhealthy weight control, sexual risk behaviors, early pregnancy, and suicidality (Howard & Wang, 2003; Silverman et al., 2001). Fewer gender specific correlates are found for males; male *perpetration* is associated with negative attitudes toward women (Bookwala et al., 1992; Sigelman, Berry, & Wiles, 1984) and a low feeling of life purpose (Malik et al., 1997), while male *victimization* has been found to be related to demographic variables such as older age and living with a parent and step-

parent (Malik et al., 1997). Although many of these correlates of dating aggression, such as substance use, norms accepting of violence, and exposure to community violence are helpful in understanding patterns of risk factors and behaviors in which aggressive or victimized teens may also be involved, cross-sectional studies do little to further our understanding of risk factors that may be present before adolescents initiate dating and/or become involved in dating relationships characterized by aggression. However, findings suggest that environmental context may differentially relate to dating aggression.

Longitudinal Predictors of Dating Aggression

Many studies have also examined family-level predictors of adolescent dating aggression; however, these studies have focused almost exclusively on the intergenerational transmission of violence rather than investigating developmental processes occurring within the context of families. Most of these studies have investigated whether witnessing violence between parents or experiencing child abuse predicts later perpetration or victimization of dating aggression. Several studies have found that sustaining violence or "harsh" discipline from parents in childhood is associated, either directly or indirectly, with perpetration and/or victimization of aggression in dating relationships (Makepeace, 1987; Malik et al., 1997; Peterson & Olday, 1992; Reuterman & Burcky, 1989; Riggs & O'Leary, 1996; Shook et al., 2000; Sigelman et al., 1984; Stets & Pirog-Good, 1987). Other studies have examined whether witnessing inter-parental or spousal violence in childhood is predictive of involvement in dating aggression, but the findings of those studies have been mixed. For example, some studies found that witnessing violence between parents or caregivers has no relation to adolescents' involvement in dating aggression (Follette & Alexander, 1992; McCloskey

& Lichter, 2003), while other studies have found either a direct or indirect link between witnessing interparental aggression and perpetrating or sustaining aggression in dating relationships (Foo & Margolin, 1995; O'Keeffe et al., 1986; Riggs & O'Leary, 1996). A few studies have indicated that a direct transmission model of violence fails to account for the complexity of the phenomenon of dating aggression. Shook, Gerrity, Jurich, and Segrest (2000) found that for males, witnessing parental aggression was *negatively* related to perpetration of physical dating aggression but there was no such association for females. Malik, Sorenson, and Aneschenel (1997) found that witnessing female-to-male interparental aggression was predictive of physical perpetration and victimization for boys, but that witnessing male-to-female aggression was associated with *less* perpetration of physical dating aggression for both boys and girls. It seems that although intergenerational transmission of violence theories may be plausible, the type of violence experienced or witnessed and the gender of the adolescent may differentially influence the ways in which these childhood experiences contribute to the use or experience of dating aggression.

The lack of consistent findings in the intergenerational transmission literature may be due to an overly simplistic view of behavioral modeling, in which the familial and developmental mechanisms that contribute to adolescents' behavior within intimate relationships are overlooked. Drawing from the developmental psychopathology perspective (Cicchetti, 1984, 1990; Kuperminc & Brookmeyer, in press), it may be useful to examine other aspects of adolescent-parent relationship quality and the developmental processes operating within these relationships as a means of learning more about predictors of dating aggression. In fact, a few researchers have begun to examine

parental influences on dating behavior beyond behaviors specifically related to aggression, suggesting the importance of the quality of parent-adolescent relationships in influencing mental, emotional, and behavioral involvement in romantic relationships in adolescence (Collins & Sroufe, 1999; Gray & Steinberg, 1999). For example, Scharf & Mayseless (2001) found in a sample of Israeli male adolescents that relationships with parents, measured in terms of parents' acceptance and encouragement of their independence, was associated with general social competence. Competence, in turn, both directly and indirectly influenced capacity for intimacy in romantic relationships. At least one study has examined the quality of the parent-child relationship as a predictor of involvement in dating aggression. In a prospective longitudinal study of male adolescents, Simons, Lin, and Gordon (1998) examined involved and supportive parenting (a scale assessing warmth and acceptance, parental monitoring, consistency of discipline, and the use of inductive reasoning to explain rules and expectations) as a predictor of general delinquency and perpetration of physically aggressive behavior in dating relationships. Using structural equation modeling, Simons and colleagues found that involved and supportive parenting was negatively related to general delinquent behavior, which in turn positively predicted dating aggression. The finding that parenting variables contribute indirectly to dating aggression through delinquency suggests the need for further exploration of the parent-child relationship when examining processes linked to dating aggression. One such parent-child developmental process that has also been linked to delinquency is the negotiation of autonomy and relatedness.

Autonomy and Relatedness with Parents

Whereas the literature on adolescent dating and at least one study of dating aggression have begun to examine the influences of developmentally important aspects of parent-child relationships, a crucial aspect of the parent-adolescent relationship has not yet been examined as an influence on normative or maladaptive dating behaviors. Developmental theorists have suggested that adolescents' ability to negotiate strivings for emotional and behavioral autonomy from parents while maintaining a close relationship with them is one of the major developmental tasks of adolescence. Failure to negotiate this task successfully has been related to problematic behavioral and socio-emotional outcomes (Allen, Hauser, Bell, & O'Connor, 1994; Allen et al., 1997).

Early research and theorizing on autonomy in adolescence emerged from psychoanalytic theory and defined autonomy in terms of independence from parents. Thus, autonomy was considered synonymous with *detachment* from parents, and was characterized by emotional separation from parents and freedom from parental influence (J. P. Hill & Holmbeck, 1986). Recent research, however, recognizes that the establishment of autonomy or independence need not necessarily mean the dissolution of close relationships with parents. Ryan and Lynch (1989) define autonomy as "self-governance and self-regulation" but emphasize that it is not necessarily the same as detachment from parents. They argue that in some instances, detachment from parents can actually interfere with the development of autonomy and self-concept.

Allen and colleagues have expanded upon this idea and argue that "autonomy optimally is developed not at the expense of relationships, but rather in the context of close, supportive relationships with parents" (Allen et al., 1997, p.551). They suggest

that strivings for autonomy that occur in the context of warm and supportive parent-child relationships (ones high in relatedness) may buffer adolescents from long-term involvement in highly deviant behavior. However, adolescents' successful strivings for autonomy in the *absence* of parental relationships characterized by a high degree of relatedness may lead to severely deviant behavior, whereas failure to establish autonomy from parents may also lead to negative outcomes (Allen et al., 1990; Allen et al., 1997).

Therefore, Allen and colleagues have developed several research studies in which autonomy and relatedness are examined together. Specifically, they have conducted research in which adolescents' attempts to establish autonomy *while maintaining* relatedness with their parents and in which parents' efforts to support the establishment of autonomy and relatedness are examined as predictors of a multitude of adolescent outcomes, ranging from ego development and self-esteem to deviant behavior (Allen, Hauser, Bell, & O'Connor, 1994; Allen et al., 1996; Tate, 1999). Their observational research examines the behaviors both of adolescents and their parents (usually mothers) that function either to promote or inhibit the autonomy of their partner in the context of dyadic interactions. These behaviors, coded from observed interactions, are related to a number of adolescent and young adult outcomes in expected directions. For example, interactions characterized by the promotion of autonomy and relatedness have been associated with positive psychological outcomes such as increased ego development and self-esteem (Allen, Hauser, Bell, & O'Connor, 1994), and decreased negative affect (Allen, Hauser, Eickholt et al., 1994). With regard to interpersonal outcomes, the promotion of autonomy and relatedness is positively related to improvements in overall social functioning, mother-child relationship quality (McElhaney & Allen, 2001), and

security in states of mind regarding attachment in young adulthood (Allen & Hauser, 1996) and negatively related to increases in adolescent-parent hostile conflict from age 14 to 16 (Allen et al., 1996). The promotion of autonomy and relatedness has been associated with positive behavioral outcomes such as educational and occupational attainment in late adulthood (Bell, Allen, Hauser, & O'Connor, 1996; Best, Hauser, & Allen, 1997), whereas the inhibition of autonomy and relatedness has been linked to negative behavioral outcomes such as externalizing behaviors (Allen, Hauser, Eickholt et al., 1994) and involvement in violent behavior (Tate, 1999) in later adolescence. Non-observational studies examining adolescent autonomy and relatedness in contexts other than parent-adolescent interactions have also found that autonomy and relatedness are linked to lower levels of delinquency and problem behaviors (Allen, Kuperminc, Philliber, & Herre, 1994; Kuperminc, Allen, & Arthur, 1996; Turner, Irwin, Tschann, & Millstein, 1993).

In general, these studies have found that behaviors promoting autonomy and relatedness are associated with positive outcomes (higher levels of self-esteem, ego development, social functioning and relationship quality and lower levels of hostile conflict, delinquency, problem behaviors, etc.) and behaviors inhibiting autonomy and relatedness are associated with negative outcomes. However, several important "exceptions" to this relation between autonomy and relatedness and adolescent outcomes have been empirically documented. Allen, Hauser, Bell, and O'Connor (1994) found that fathers' behaviors inhibiting the adolescents' autonomy were related to increased ego development and self-esteem, but *only* when these challenges occurred in the context of fathers' overall displays of 'autonomous-relatedness' (a single variable used in this study

to represent behaviors high in support of both autonomy and relatedness), thereby emphasizing the importance of the positive behaviors indicative of a warm and supportive relationship.

A second important exception to the general rule that behaviors supporting autonomy and relatedness lead to positive outcomes while behaviors inhibiting autonomy and relatedness lead to negative outcomes may be for families living in environments of high risk. Researchers on autonomy and relatedness have asserted the idea that parents whose adolescents are growing up in neighborhoods where risk for involvement in criminal and delinquent behavior is heightened may be less supportive of their adolescents' strivings for autonomy than parents in lower-risk neighborhoods, and that this parenting strategy may well be adaptive for such environments (Allen et al., 1997). This idea was empirically supported in a recent study by McElhaney and Allen (2001), who found that for high risk adolescents, mothers' behaviors inhibiting autonomy were *positively* related to higher levels of adolescents' reports of feelings of trust and acceptance in their relationships with their mothers, while these associations were not significant for low risk adolescents. Additionally, high-risk adolescents who exhibited autonomy in their interactions with their mothers reported higher levels of alienation from their mothers and higher levels of self-reported delinquency, but this was not true for low-risk adolescents. Although risk was highly confounded with race/ethnicity in these samples, exposure to risk appeared to be the more important factor, in that risk exposure accounted for the moderation of these relationships after controlling for the effects of race.

Similarly, attachment status has also been found to moderate the relation between autonomy and adolescent outcomes. Allen and colleagues (2002) found that for more insecurely-preoccupied teens, higher levels of maternal promotion of autonomy predicted *decreases* in adolescent social skills and *increases* in adolescent delinquency two years later, while no such effect was found for teens lower in insecure-preoccupied attachment organizations. They suggest that maternal promotion of autonomy may signal an implied separation for insecure-preoccupied teens, causing fear and anxiety, which may then manifest in decreased social skills and increased problem behaviors. These findings suggest that while there is substantial evidence that behaviors promoting autonomy and relatedness are associated with positive outcomes and behaviors inhibiting these strivings are related to negative outcomes, the context of the parent-child relationship itself and the environment in which the relationship exists may be important factors that differentially influence the effect of autonomy and relatedness on adolescent outcomes.

Many of the psychological and behavioral outcomes that have been both concurrently and longitudinally associated with parental and adolescent behaviors supporting and inhibiting autonomy and relatedness have also been theoretically or empirically linked to general dating behaviors or to dating aggression. Depressed or negative affect has been related to perpetration of physical aggression for girls (Foshee et al., 2001; McCloskey & Lichter, 2003) and is negatively associated with the promotion of autonomy and relatedness (Allen, Hauser, Eickholt et al., 1994). Self-esteem, which was positively predicted by behaviors supporting autonomy and relatedness (Allen, Hauser, Bell, & O'Connor, 1994), has been found to be negatively related to physical and psychological victimization for girls (Jezl et al., 1996; O'Keefe & Treister, 1998).

Although it has yet to be examined as a correlate of dating aggression per se, secure attachment status, which was predicted by behaviors supporting autonomy and relatedness (Allen & Hauser, 1996), has been found to be related to stability and commitment in young adult dating relationships (Duemmler & Kobak, 2001). Perhaps most important in terms of linkages to dating aggression, however, are the findings that the negotiation of autonomy and relatedness predict involvement in problem behaviors such as delinquency and violence perpetration (Allen, Hauser, Eickholt et al., 1994; Kuperminc et al., 1996; Tate, 1999). Using the same sample of adolescents and their mothers being used for this study, Tate (1999) found that coercive mother-teen relationship characteristics (a composite variable composed of maternal and adolescent reports of total conflict in the relationship, maternal and adolescent behaviors inhibiting autonomy and relatedness, and the absence of maternal and adolescent behaviors promoting autonomy and relatedness) observed in mid-adolescence indirectly predicted (through ego development, self-restraint, and competence expectations) adolescents' general violent behavior in late adolescence. This finding is especially important for establishing a possible link between autonomy and relatedness and dating aggression, as perpetration of dating aggression has been consistently linked to perpetration of violence in other contexts for both girls and boys (Bookwala et al., 1992; Foshee et al., 2001; Simons et al., 1998).

In sum, the negotiation of autonomy and relatedness with parents has been established as an important developmental task in adolescence and an important pathway to a variety of risk factors for dating aggression. Specifically, research has shown that parents' and adolescents' behaviors supporting and undermining the adolescents'

attempts at autonomy and relatedness are related to a number of psychological and behavioral outcomes linked to perpetration and/or victimization of dating aggression. Examining parents' and adolescents' behaviors promoting autonomy and relatedness in mid-adolescence as predictors of involvement in dating aggression in later adolescence may shed light on an important developmental pathway to these maladaptive dating behaviors in adolescence. However, current research on variations in involvement in dating aggression and in autonomy and relatedness processes by gender, race/ethnicity, and exposure to risk suggests that any examination of this developmental pathway must explore these demographic factors as moderators. If these developmental processes have different associations with dating aggression as a function of gender, race, or environmental risk, examining these variables may help to clarify the nature of demographic and contextual variations in young people's involvement with dating aggression. Findings have the potential to point to valuable opportunities for contextually sensitive prevention or intervention of dating aggression among a diversity of adolescent samples and to further our understanding of the differential contexts in which autonomy and relatedness predict adolescent dating aggression.

The Current Study

The present study will attempt to advance current knowledge on adolescent dating aggression in two ways. First, as its primary focus, this study will examine autonomy and relatedness as longitudinal predictors of involvement in physical or psychological dating aggression in a sample of late adolescents. As a secondary focus, this study will examine gender, race, and environmental risk as potential moderators of associations between autonomy and relatedness and dating aggression.

This study will address the following overall research questions and specific hypotheses:

Research Question 1: Do mothers' demonstrations of autonomy and relatedness contribute to adolescents' involvement in dating aggression two years later? Are there gender, racial, or environmental risk differences in these associations?

Hypothesis 1.1: Mothers' behaviors supporting autonomy and relatedness at adolescents' age 16 will be negatively related to adolescent self-reports of perpetration and victimization of physical and psychological aggression at adolescents' age 18. Gender, race, and risk will be explored as moderators.

Hypothesis 1.2: Mothers' behaviors inhibiting autonomy and relatedness at adolescents' age 16 will be positively related to adolescent self-reports of perpetration and victimization of physical and psychological aggression at adolescents' age 18. Gender, race, and risk will be explored as moderators.

Research Question 2: Do adolescents' demonstrations of autonomy and relatedness contribute to their involvement in dating aggression two years later? Are there gender, racial, or environmental risk differences in these associations?

Hypothesis 2.1: Adolescents' behaviors supporting autonomy and relatedness at adolescents' age 16 will be negatively related to adolescent self-reports of perpetration and victimization of physical and psychological aggression at adolescents' age 18. Gender, race, and risk will be explored as moderators.

Hypothesis 2.2: Adolescents' behaviors inhibiting autonomy and relatedness at adolescents' age 16 will be positively related to adolescent self-reports of

perpetration and victimization of physical and psychological aggression at adolescents' age 18. Gender, race, and risk will be explored as moderators.

Method

Participants

The data were drawn from a larger sample of adolescents who participated in a longitudinal study of adolescents and families. Participants were recruited through two suburban/rural public high schools in central Virginia. In order to identify a target sample of high school students who were unlikely to go to college and were at-risk for engaging in problem behaviors, the original study included adolescents who were identified as having one or more of the following risk factors: having multiple school absences, a failing grade, a suspension, or a history of grade retention. About half of the population of the two schools met at least one of these criteria and were eligible for participation in the study.

Of the original 179 families who completed the first wave of data collection, 146 teens and their families completed the second wave of data collection approximately two years after the first wave. The current study used data from the subsample of these 146 adolescents who indicated that they had had at least one dating partner in the past year and filled out measures related to dating aggression with these dating partners (n=91). Of these 91 adolescents, 10 were missing data on observed autonomy and relatedness with mother during a video-taped interaction during Wave 1 (the independent variables for this study). The autonomy and relatedness data for 7 of these 10 cases could be reasonably imputed using the EM method of missing data imputation (Allison, 2002), resulting in a final sample of 88 for the current study (the data imputation process is explained in detail in the description of the autonomy and relatedness variables later in this chapter).

Of the 88 adolescents in the current study sample, 55% identified as Caucasian, 44% identified as African-American, and 1% identified as Other (e.g., Native-American, multi-racial, etc.). The sample was fairly evenly split by gender (48% female). The mean family income was just over $30,000 per year (M=$31, 322, SD=$19,747). The majority (58%) of the adolescents were in 10th grade and were almost 16 (M=15.85, SD=.87) at Time 1 and were just over 18 years of age (M=18.18, SD=1.11) at Time 2. Sixty percent indicated that they were currently dating a partner and 10% were engaged to their current dating partner at Time 2.

Procedure

The families of all eligible adolescents were contacted first by mail and then by phone and invited to participate in the study; approximately 67% of the families contacted agreed to participate. As part of the first wave of data collection (Wave 1), those families were invited to attend two 3-hour sessions (Visits 1 and 2) at the University of Virginia and were told they would be paid $105 (per family) for their time. Transportation and childcare were provided upon request. At the beginning of Visit 1, the interviewers described in further detail the purpose of the study, discussed issues pertaining to confidentiality in detail, and obtained consent from each family member. The purpose of the study and issues pertaining to informed consent (including confidentiality) were reviewed with the families at the beginning of the Visit 2 as well. During each of the two visits, each family member completed face-to-face interviews and a series of questionnaires with an interviewer in a private room. Measures examined demographic information, personal histories of each participant, and the quality of family and peer relationships as well as obtaining information from multiple informants about

the adolescents' mental and emotional states (self-esteem, social competence, etc.) and behaviors (delinquency, substance use, sexual activity). Additionally, family members participated in videotaped dyadic interaction tasks. Because of the sensitive nature of much of the information being collected, the interviewers continued to emphasize issues pertaining to confidentiality throughout the course of the sessions, especially with the adolescent. Referral lists containing information about various professional and community services were provided to each family member at the end of each session.

Roughly two years later, families were recontacted and asked to return for the second wave of data collection (Wave 2). Again, two three-hour sessions were conducted (Visit 3 and Visit 4). However, in the second wave, parents were asked to attend only Visit 3, while the adolescent was asked to return for both visits. Procedures were identical to those of Wave 1 sessions, with the exception that adolescents were paid $65 for their participation while each parent was paid $50.

Variables

Demographic variables: Demographic variables including gender, race/ethnicity, and environmental risk were measured through mother and adolescent self-report in the face-to-face interviews during Wave 1. Adolescents reported on their gender and race and on the high school they attended. Mothers reported on annual household income and number of persons supported by this income. As in McElhaney & Allen (2001), a dummy variable indicating environmental risk was computed using information on federal poverty line status (as calculated based on a Federal income-to-needs ratio that takes into account both household income and the number of persons supported by that income) and on location of residence, i.e., whether the adolescent lived in a rural or an

urban/suburban area (as indicated by high school district). Families were identified as environmentally at risk if their income fell at or below the 200% federal poverty line *and* their residence was classified as urban or suburban. Research documents that poor families and children who live in urban areas are particularly at-risk for exposure to crime and other negative outcomes related to criminal activity (Brooks-Gunn, Klebanov, Liaw, & Duncan, 1995; Krivo & Peterson, 1996; McElhaney & Allen, 2001; McLoyd, 1990). Crime rates in the geographical area from which the current sample was recruited support this assertion. For the year 1995 (which was toward the end of Wave 1 data collection), the rate of index offenses in the city was over 2.5 times that of the surrounding county, and arrests related to the sale and manufacture of drugs was almost 3 times as high in the city as in the county (McElhaney & Allen, 2001; Virginia Department of State Police, 1995). Thus, poverty coupled with living in an urban area is likely a better indicator of exposure to crime and environmental risk than poverty alone.

Autonomy and Relatedness: During the course of one visit during both waves of data, mothers, fathers, and adolescents were asked to indicate and list in rank order areas of disagreement with each other family member. Interviewers then identified the most conflictual issue listed by both parties. Each dyad (mother-adolescent, father-adolescent, and mother-father) was then asked to participate in a videotaped revealed differences task, in which they were asked to discuss the issue about which they disagreed. These videotaped family interactions were coded using a reliable and valid coding system that identifies behaviors promoting or inhibiting autonomy and relatedness for each member of the dyad (Allen, Hauser, Bell, Boykin, & Tate, 1994).

Each individual's contribution to the dialogue was evaluated and scored on 10 different codes that were categorized into four sets of behaviors: behaviors promoting autonomy, behaviors promoting relatedness, behaviors inhibiting autonomy, and behaviors inhibiting relatedness (see Appendix A). Scores for each individual in the dyad were used as separate indicators of relationship quality and functioning (Tate, 1999).

The coding system for these scales has consistently shown high rates of interrater reliability using Spearman-Brown correlations. Additionally, these scales have shown moderate to strong internal consistency, with Cronbach's alpha estimates for promoting autonomy and relatedness ranging between .70 to .81 and estimates for inhibiting autonomy and relatedness ranging between .57 and .81 (Allen, Hauser, Bell, Boykin et al., 1994; McElhaney & Allen, 2001; Tate, 1999). The construct validity of these scales has been demonstrated in other studies of adolescent functioning (Allen, Hauser, Bell, & O'Connor, 1994; Allen, Hauser, Eickholt et al., 1994; Tate, 1999). Measures of autonomy and relatedness were assessed at Wave 1 and Wave 2, but the current study used only the assessments made of mother-adolescent dyads at Wave 1, when the adolescents were about 16 years of age.

Although data were collected for mother-adolescent dyads and father-adolescent dyads whenever possible, the small number of father-adolescent interactions collected for the study sample (n = 29) prohibits examining father-adolescent autonomy/relatedness variables in statistical analyses. Therefore, this study examined only mother-adolescent interactions for behaviors related to the promotion of autonomy and relatedness.

As was stated earlier, of the 91 adolescents who had reported on dating relationships in the past year, 10 were missing data on the autonomy and relatedness

variables from the mother-adolescent video-taped interaction task. Of these 10, 7 cases were determined to be missing at random, meaning that "the probability of missing data on [a given variable] is unrelated to the value of [that variable], after controlling for other variables in the analysis" (Allison, 2002, p. 4). In these cases, the data were missing for reasons that can reasonably be assumed to be unrelated to adolescents and mothers demonstrations of autonomy and relatedness, e.g., coders had problems reading the tape, the session was not ever taped due to technical or scheduling problems, etc. The other three cases could not be qualified as missing at random, e.g., the adolescent did not live with/have a relationship with her/his mother or the mother never came in for any Wave 1 visits and therefore did not complete any Wave 1 measures. Therefore, autonomy and relatedness data were imputed for the seven cases in which the data could be assumed to be missing at random but not for the other three cases. Data were imputed using the EM algorithm, which is a generally accepted method for estimating missing data (Allison, 2002). It is similar to other maximum likelihood and regression methods for estimating missing data, in which scores for the missing cases are estimated based on those cases' scores on other related variables and the known correlation/relation between those variables and the variable of interest (the variable for which some of the data is missing) in the rest of the sample with complete data. The advantage of using the EM algorithm is that it incorporates the residual variances and covariances in its final calculations of variances using the imputed data, which "corrects for the usual underestimation of variances that occurs in more conventional imputation schemes" (Allison, 2002, p. 20).

Dating Aggression variables: Adolescents self-reports of both their perpetration and victimization of physical and psychological aggression with any dating partner in the

past year were measured using the physical and psychological subscales of the Conflict Tactics Scale (Straus, 1979). The response sets were modified from the original version of the CTS so that, instead of asking the adolescent to report raw frequencies of behaviors, a 4-point Likert Scale was used (0=never, 1=once or twice, 2=several times, and 3=many times; see Appendix B). Dating aggression experiences were assessed at Wave 2, when the adolescents were about 18 years old.

For perpetration of physical aggression against any partner in the past year, adolescents were asked "How often have you done this with one or more romantic partners in the past year?" about 11 physically aggressive behaviors, such as throwing something at them, kicking them, hitting them with an object, choking them and threatening them with a knife or gun (items 11-21). For victimization of physical aggression from any dating partner within the past year, adolescents were asked, "How often has one or more romantic partners done this with you in the past year?" about the same physically aggressive behaviors. Final scores were obtained by summing the "frequency" or Likert score of each behavior across behaviors. Because the responses to the physical aggression variables were positively skewed, square root transformations of the sum scores for perpetration and victimization were used.

For perpetration of psychological aggression against any partner in the past year, adolescents were asked "How often have you done this with one or more romantic partners in the past year?" about 6 psychologically aggressive behaviors, such as insulting or swearing at the person, threatening to hit or throw something at them, and destroying an object (items 4-6, 8-10). For victimization of psychological aggression from any dating partner, adolescents were asked, "How often has one or more romantic

partners done this with you in the past year?" about the same psychologically aggressive behaviors. Final scores were obtained by summing the frequency of each behavior across behaviors.

Results

Preliminary Analyses

Means and standard deviations were calculated for each independent and dependent variable for the entire sample and are presented in Table 1. Descriptives were also calculated for each group defined by the moderator variables examined in this study; means, standard deviations, and independent samples t-tests are presented in Table 1 for boys and for girls, for minority and Caucasian participants, and for participants who were not at risk and those who were at risk.

Gender, racial/ethnic, and risk-level differences were found for several independent and dependent variables. Girls displayed significantly higher levels of behaviors both supporting and inhibiting autonomy in interactions with their mothers than boys did. Girls also reported significantly higher rates of perpetration of both physical and psychological aggression than boys. The mothers of minority adolescents exhibited significantly lower levels of behaviors supporting relatedness with their teens than the mothers of Caucasian participants. Minority adolescents demonstrated significantly lower levels of behaviors both supporting and inhibiting autonomy and lower levels of behaviors supporting relatedness in their interaction tasks than their Caucasian counterparts. Finally, when the sample was divided into teens exposed vs. not exposed to environmental risk, the mothers of at-risk teens demonstrated significantly lower levels of behaviors supporting their teens' autonomy than the mothers of teens who were not at risk. Additionally, at-risk teens demonstrated lower levels of behaviors both supporting and inhibiting autonomy and lower levels of behaviors both supporting and inhibiting relatedness. There were no significant differences between minority and

Table 1: Means and Standard Deviations of Independent and Dependent Variables, with T-Tests of Differences Based on Moderator Variables

Variable	Sample	Gender			Race/Ethnicity			Risk Status		
	N=88	Girls n=42	Boys n=46	t	Minority n=40	Caucasian n=48	t	At-Risk n=29	Not at-risk n=59	t
Mothers' Behaviors										
Supporting Autonomy	2.68 (0.66)	2.62 (0.58)	2.74 (0.72)	0.90	2.61 (0.65)	2.74 (0.66)	0.93	2.45 (0.74)	2.79 (0.58)	2.35*
Inhibiting Autonomy	0.90 (0.44)	0.86 (0.47)	0.94 (0.41)	0.90	0.93 (0.44)	0.89 (0.45	-0.56	0.89 (0.42)	0.91 (0.46)	0.17
Supporting Relatedness	2.03 (0.69)	2.16 (0.65)	1.91 (0.70)	-1.72	1.76 (0.56)	2.26 (0.71)	3.57*	1.92 (0.63)	2.09 (0.71)	1.12
Inhibiting Relatedness	0.90 (0.64)	0.88 (0.65)	0.93 (0.63)	0.35	0.89 (0.72)	0.92 (0.58)	0.18	0.77 (0.57)	0.97 (0.66)	1.38
Teen's Behaviors										
Supporting Autonomy	1.88 (0.90)	2.14 (0.80)	1.65 (0.93)	-2.62*	1.44 (0.79)	2.25 (0.83)	4.67*	1.38 (0.83)	2.13 (0.84)	3.97*
Inhibiting Autonomy	0.83 (0.55)	0.99 (0.59)	0.70 (0.48)	-2.55*	0.70 (0.41)	0.95 (0.63)	2.12*	0.61 (0.45)	0.95 (0.57)	2.81*
Supporting Relatedness	1.36 (0.63)	1.42 (0.54)	1.30 (0.71)	-0.92	1.15 (0.59)	1.54 (0.61)	3.00*	1.09 (0.66)	1.49 (0.59)	2.94*
Inhibiting Relatedness	1.13 (0.69)	1.22 (0.75)	1.05 (0.63)	-1.17	1.01 (0.57)	1.23 (0.77)	1.53	0.94 (0.55)	1.22 (0.74)	2.03*
Physical Aggression										
Perpetration	1.17 (3.65)	2.19 (5.08)	0.24 (0.64)	-2.47*	1.83 (4.75)	0.63 (2.29)	-1.55	2.07 (5.50)	0.73 (2.29)	-1.27
Victimization	1.62 (2.92)	1.77 (3.58)	1.48 (2.19)	-0.46	2.06 (3.78)	1.25 (1.92)	-1.29	2.14 (3.58)	1.36 (2.53)	-1.19
Psychological Aggression										
Perpetration	3.65 (4.22)	5.10 (4.93)	2.33 (2.93)	-3.15*	3.86 (4.88)	3.48 (3.63)	-0.42	3.01 (3.96)	3.97 (4.34)	0.99
Victimization	4.28 (3.88)	4.83 (4.15)	3.78 (3.58)	-1.29	4.15 (4.36)	4.40 (3.47)	0.30	3.96 (4.00)	4.44 (3.84)	0.55

*Note: * indicates p<.05*

Caucasian nor between high risk and low risk adolescents on perpetration or victimization of physical or psychological aggression.

Bivariate correlational analyses were also conducted between all of the study variables (see Table 2). All correlations with absolute values greater than 21 were significantly different from zero. Of the demographic variables in the study, race/ethnicity and risk status were highly correlated, such that the participants classified as being at-risk based on their income and urban residence were more likely to be of a racial/ethnic minority than they were to be Caucasian. As indicated by the t-tests, gender was significantly correlated with teen's supporting and inhibiting of autonomy and with physical and psychological perpetration. Race/ethnicity was significantly correlated with four of the eight of the autonomy and relatedness variables and, in addition, was significantly correlated with the transformed physical perpetration variable as well. As was indicated in the t-tests, risk status was significantly correlated with many of the autonomy and relatedness variables but none of the physical aggression variables.

Not surprisingly, many of the autonomy and relatedness variables were significantly intercorrelated, as were all of the aggression variables. Consistent with expectations, mothers' behaviors inhibiting relatedness were significantly positively correlated with adolescents' reports of both perpetration and victimization of psychological aggression. Also consistent with expectations, adolescents' behaviors inhibiting autonomy were significantly positively correlated with reports of psychological perpetration. Contrary to expectations, however, mothers' behaviors supporting autonomy were *positively* correlated with adolescents' reports of perpetration of

Table 2. Bivariate Correlations Between Study Variables

Variable Name	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1. Gender	--														
2. Race/Ethnicity	-05	--													
3. Risk Status	01	57	--												
4. Mom's Supporting Autonomy	-10	-10	-25	--											
5. Mom's Supporting Relatedness	18	-37	-12	26	--										
6. Mom's Inhibiting Autonomy	-10	06	-02	-07	-39	--									
7. Mom's Inhibiting Relatedness	-04	-02	-15	-08	-43	48	--								
8. Teen's Supporting Autonomy	27	-45	-39	31	43	-01	11	--							
9. Teen's Supporting Relatedness	10	-31	-30	24	55	-16	-10	45	--						
10. Teen's Inhibiting Autonomy	27	-22	-29	06	-12	19	33	37	07	--					
11. Teen's Inhibiting Relatedness	13	-16	-20	-20	-37	31	42	-02	-35	58	--				
12. Psychological Perpetration	33	05	-11	21	03	15	22	20	07	25	15	--			
13. Psychological Victimization	14	-03	-06	00	-04	07	25	03	05	09	19	74	--		
14. Physical Perpetration (transformed)	34	25	20	18	-01	12	04	06	05	01	-04	68	53	--	
15. Physical Victimization (transformed)	-03	04	09	05	-09	13	16	-08	-09	-06	00	56	68	57	--

Note: All values multiplied by 100. Transformed correlation coefficients $\geq |21|$ are significant at $p \leq .05$.

psychological aggression. Surprisingly, none of the autonomy and relatedness variables were significantly correlated with reports of perpetration or victimization of physical aggression.

Analysis Strategy for Study Hypotheses

The hypotheses distinguished by the independent variables involved. Hypotheses 1.1 and 1.2 pertain to mothers' behaviors supporting and inhibiting (respectively) autonomy and relatedness during an interaction at Time 1 to predicting the adolescents' involvement in dating aggression at Time 2. Hypotheses 2.1 and 2.2 pertain to the adolescents' behaviors supporting and inhibiting (respectively) autonomy and relatedness during an interaction at Time 1 to predict the adolescents' involvement in dating aggression at Time 2. For each hypothesis, four dating aggression variables (perpetration and victimization of both physical and psychological aggression) were examined. Further, gender, race/ethnicity and risk status were examined as moderators for each dependent variable within each hypothesis. Because the structure of each analysis within each hypothesis is the same, an identical analytic strategy employing hierarchical regression analyses was used to examine each hypothesis. For each regression equation, preliminary analyses were conducted to examine contributions of gender, race/ethnicity and environmental risk status to explained variance in each dependent variable. These demographic variables were retained in the final model only if preliminary analyses revealed significant main effects or interactions involving those variables. Final regression models included identified demographic variables in step one, followed by inclusion of the relevant autonomy and relatedness variables in step two, and then (if supported) inclusion of interactions of demographic variables with autonomy or

relatedness. Post-hoc analyses of interpreted interactions were conducted to determine whether the individual slopes of the lines for each level of the moderator variable significantly differed from zero, following the procedures recommended by Aiken and West (1991).

Interactions were interpreted if statistical tests showed an alpha level of $p < .10$ and if post-hoc analyses revealed that at least one of the slopes defined by gender, risk status, or race/ethnicity was significantly different from 0. Given the study's limited statistical power, the exploratory nature of moderation analyses, and the fact that moderation effects are extremely difficult to detect in non-experimental studies (McClelland & Judd, 1993), this strategy reduces the likelihood of Type II error. McCelland and Judd (1993) argue that the difficulty in detecting moderation in non-experimental studies warrants the consideration of interactions accounting for as little as 1% of the variance.

Contribution of Demographic Characteristics

Gender was a significant predictor of perpetration of both physical and psychological aggression in the models examining each set of autonomy and relatedness variables. Additionally, race/ethnicity emerged as a significant predictor of perpetration of *physical* aggression in all models except that examining maternal behaviors supporting autonomy and relatedness. Gender accounted for 11% of the variance in physical perpetration in the model examining maternal supportive behaviors, and the combination of gender and race/ethnicity accounted for between 18 and 19% of the variance in physical perpetration in the other three models. Gender accounted for 11% of the variance in psychological perpetration in each of the four hypothesized models. Girls

reported higher levels of physical and psychological perpetration than boys, and minority participants reported higher levels of physical perpetration than Caucasian participants.

Hypothesis 1.1

The hypothesis that mothers' behaviors supporting of autonomy and relatedness would negatively predict involvement in dating aggression was not supported by the data (see Table 3). Three of the four regression models examining maternal behaviors supporting autonomy and relatedness were significant, accounting for 13% to 28% of the variance. A significant interaction of gender with mothers' behaviors supporting autonomy reached significance in two of those equations. Specifically, in the equation for perpetration of physical aggression, the interaction uniquely accounted for 10% of the variance and indicated that maternal support for autonomy was associated with *higher* levels of reported perpetration of aggression for girls but not boys (See Figure 1). In the equation for physical victimization, the interaction accounted for 11% of the variance and indicated that maternal support for autonomy was associated with *higher levels* of reported victimization for girls, but *lower levels* of victimization for boys (see Figure 2). Post-hoc analyses revealed the slopes of the lines for girls were significantly different from zero in the interactions predicting physical perpetration (ß = .65; $p < .05$) and physical victimization (ß = .50; $p < .05$), but the slopes of the lines for boys were not (ß = -.03 and -.24, respectively; ns). Finally, in the equation for perpetration of psychological aggression a main effect for maternal support for autonomy was found, such that higher levels of maternal autonomy support predicted higher subsequent levels of reported

Table 3: Multiple Regressions of Physical and Psychological Perpetration and Victimization with Mothers' Behaviors Supporting of Autonomy and Relatedness

Variable	Physical				Psychological			
	Perpetration		Victimization		Perpetration		Victimization	
	β		β		β		β	
Step 1								
Gender	.37*		-.02		.37*		.14	
R^2		.11*		.00		.11*		.02
Step 2								
Mothers' Behaviors Supporting Autonomy	-.03		-.24		.28*		-.20	
Mothers' Behaviors Supporting Relatedness	-.03		.02		-.11		.02	
Change in R^2		.07*		.01		.07*		.01
Step 3								
Mothers' Behaviors Supporting Autonomy X Gender	.41*		.45*		--		.33*	
Change in R^2		.10*		.11*		--		.06*
R^2 for final model		.28*		.13*		.18*		.09
Overall F for final model	F (4, 83)=7.85*		F (4, 83)=2.98*		F (3, 84)=6.05*		F (4, 83)=1.92	

*Note: * indicates $p < .05$, + indicates $p < .10$.*
Note: Gender is coded 0=male and 1=female.
Note: Changes in R^2 may not add up to the final R^2 due to rounding.

psychological perpetration. The overall model of psychological victimization was not significant.

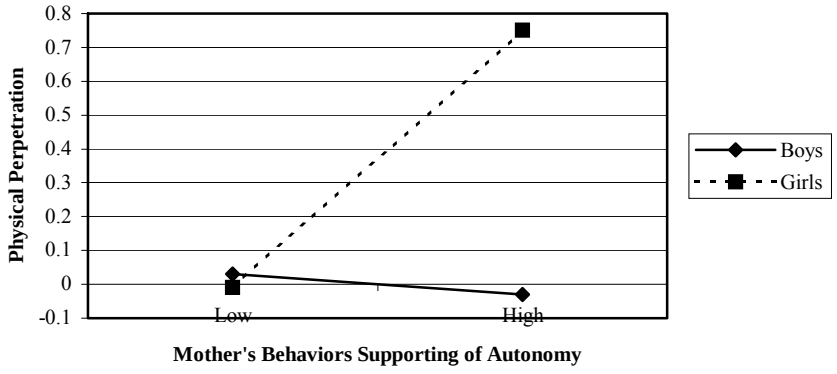

Figure 1: Interaction between gender and standardized scores of mothers' behaviors supporting of autonomy in predicting physical perpetration.

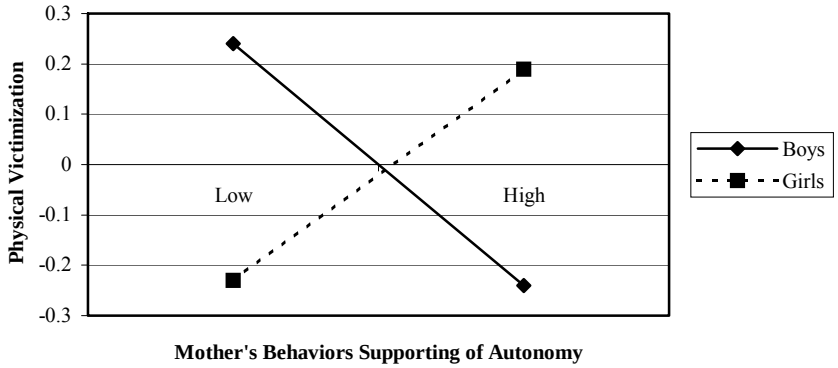

Figure 2: Interaction between gender and standardized scores of mothers' behaviors supporting of autonomy in predicting physical victimization.

In sum, the hypothesis that maternal support for autonomy and relatedness would predict lower levels of dating aggression was not supported. Contrary to the hypothesis, maternal support for relatedness was unrelated to subsequent dating aggression, and maternal support for autonomy actually predicted *higher* levels of physical perpetration and victimization for girls and *higher* levels of psychological perpetration for both boys and girls.

Hypothesis 1.2

The hypothesis that mothers' behaviors inhibiting autonomy and relatedness would positively predict involvement in dating aggression was only partially supported by the data (see Table 4). Maternal behaviors inhibiting relatedness were positively related to adolescent reports of involvement in psychological but not physical aggression. Specifically, the model predicting psychological perpetration was significant, accounting overall for 17% of the variance. Although the block of maternal behaviors inhibiting autonomy and relatedness was significant, uniquely contributing 6% of explained variance in psychological perpetration, only the regression weight for mothers' behaviors inhibiting autonomy approached statistical significance. A similar pattern was found in the model predicting psychological victimization, although the overall equation only approached significance and explained only 6% of the variance. The model predicting physical perpetration was also significant, explaining 20% of the overall variance, but only gender and race/ethnicity contributed significantly to the explained variance.

To summarize, maternal behaviors inhibiting relatedness positively predicted adolescent reports of psychological perpetration two years later, which was consistent with the hypothesis. However, this result should be interpreted with caution, because the

Table 4: Multiple Regressions of Physical and Psychological Perpetration and Victimization with Mothers' Behaviors Inhibiting Autonomy and Relatedness

Variable	Physical		Psychological	
	Perpetration	Victimization	Perpetration	Victimization
	β	β	β	β
Step 1				
Gender	.36*	--	.34*	--
Race/Ethnicity	.26*	--	--	--
R^2	.18*	--	.11*	--
Step 2	Step 1		Step 1	
Mothers' Behaviors Inhibiting Autonomy	.15	.07	.08	-.06
Mothers' Behaviors Inhibiting Relatedness	-.02	.12	.20+	.27*
Change in R^2	.02	.03	.06*	.06+
R^2 for final model	.20*	.03	.17*	.06+
Overall F for final model	F (4, 83)=5.29*	F (2, 85)=1.27	F (3, 84)=5.69*	F (2, 85)=2.83+

*Note: * indicates p<.05, + indicates p<.10*
Note: Gender is coded 0=male and 1=female; race/ethnicity is coded as 0=Caucasian and 1=African-American or other racial/ethnic minority.
Note: Changes in R^2 may not sum exactly to the final R^2 due to rounding.

regression weight for maternal inhibition of autonomy reached only a 'trend' level of significance. Maternal behaviors inhibiting autonomy were unrelated to reports of physical and psychological perpetration and victimization, and maternal behaviors inhibiting relatedness did not significantly predict adolescent involvement in physical dating aggression.

Hypothesis 2.1

The hypothesis that adolescents' behaviors supporting of autonomy and relatedness would negatively predict involvement in dating aggression was not supported by the data (see Table 5). Two of the four models reached significance and were predominantly characterized by the contribution of the interactions of race/ethnicity or risk with adolescents' behaviors supporting autonomy. In the model predicting physical perpetration, which accounted overall for 25% of the variance, the interaction of risk and adolescents' behaviors supporting autonomy was significant (ΔR^2=.05, $p < .05$) and indicated that at-risk adolescents demonstrating higher levels of support for autonomy reported *higher* levels of perpetration of physical aggression, whereas for non-risk participants, adolescent autonomy promotion did not effect reports of physical perpetration (see Figure 3). Post-hoc analyses indicated that the slope of the line for at-risk participants was significantly different from zero (ß = .52, $p < .05$), but the slope for low-risk participants was not significant (ß = -.03, *ns*). The equation predicting psychological perpetration accounted overall for 18% of the variance and revealed a an interaction of race/ethnicity and adolescents' behaviors supporting autonomy that approached significance (ΔR^2=.04, $p < .10$). Minority participants high in behaviors supporting autonomy reported *higher* levels of psychological perpetration, whereas

Table 5: Multiple Regressions of Physical and Psychological Perpetration and Victimization with Adolescents' Behaviors Supporting of Autonomy and Relatedness

Variable	Physical		Psychological	
	Perpetration	Victimization	Perpetration	Victimization
	β	β	β	β
Step 1				
Gender	.25*		.27*	--
Race/ethnicity	.25*	.02	.16	--
Risk Status	.20		--	--
R^2	.19*	.00	.11*	--
Step 2				Step 1
Adolescents' Behaviors Supporting Autonomy	-.03	-.23	.02	.06
Adolescents' Behaviors Supporting Relatedness	.02	-.11	-.05	-.08
Change in R^2	.02	.01	.03	.01
Step 3				
Adolescents' Behaviors Supporting Autonomy X Race/Ethn.	--	.28+	.29+	--
Adolescents' Behaviors Supporting Autonomy X Risk Status	.32*		--	--
Change in R^2	.05*	.04+	.04+	--
R^2 for final model	.25*	.05	.18*	.01
Overall F for final model	F (6, 81)=4.61*	F (4, 83)=1.00	F (5, 82)=3.52*	F (2, 85)=0.24

*Note: * indicates p < .05,, + indicates p < .10.*
Note: Gender is coded 0=male and 1=female; race/ethnicity is coded as 0=Caucasian and 1=minority; risk status is coded as 0=not at risk and 1=at risk.
Note: Changes in R^2 may not add up to the final R^2 due to rounding.

Caucasian adolescents' behaviors supporting autonomy had almost no effect on perpetration of psychological aggression (see Figure 4). Post-hoc analyses indicated that the slope of the line was significantly different from zero for minority participants (ß = .47; $p < .05$) but not for Caucasians (ß = .02, *ns*). The models predicting physical and psychological victimization were not significant, explaining only 5% and 1% of the variance, respectively.

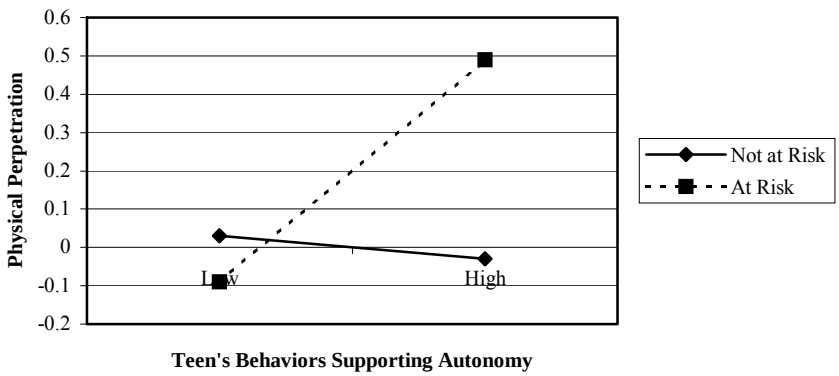

Figure 3: Interaction between risk status and standardized scores of adolescents' behaviors supporting of autonomy in predicting physical perpetration.

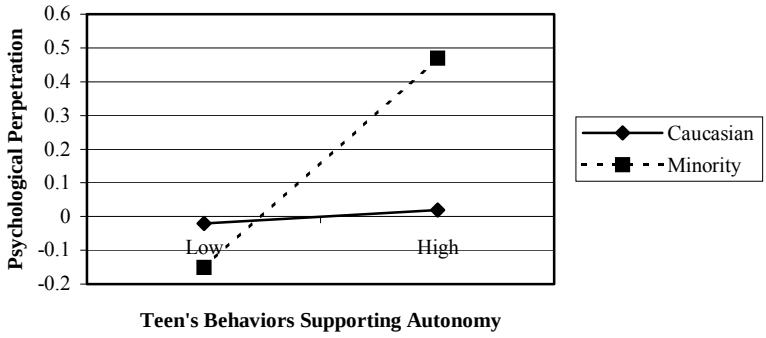

Figure 4: Interaction between race/ethnicity and standardized scores of adolescents' behaviors supporting of autonomy in predicting psychological perpetration.

Overall, the hypothesis that adolescent support for autonomy and relatedness would predict lower levels of dating aggression was not supported. Contrary to the hypothesis, adolescent support for relatedness was unrelated to subsequent dating aggression, and support for autonomy actually predicted *higher* levels of physical perpetration for at-risk participants and *higher* levels of psychological perpetration for minority participants.

Hypothesis 2.2

The hypothesis that adolescents' behaviors inhibiting autonomy and relatedness would positively predict involvement in dating aggression was not supported by the data (see Table 6). Adolescents' behaviors inhibiting autonomy and relatedness were not significant predictors in any of the models. The two significant models, predicting physical and psychological perpetration, were characterized only by significant demographic predictors.

Table 6: Multiple Regressions of Physical and Psychological Perpetration and Victimization with Adolescents' Behaviors Inhibiting Autonomy and Relatedness

Variable	Physical		Psychological	
	Perpetration	Victimization	Perpetration	Victimization
	β	β	β	β
Step 1				
Gender	.36*	-.02	.28*	--
Race/Ethnicity	.26*	--	--	--
Risk Status	--	--	--	--
R^2	.18*	.00	.11*	--
Step 2				Step 1
Adolescents' Behaviors Inhibiting Autonomy	-.001	-.08	.16	-.03
Adolescents' Behaviors Inhibiting Relatedness	-.04	.34+	.02	.21
Change in R^2	.00	.00	.03	.04
Step 3				
Adolescents' Behaviors Inhibiting Relatedness X Gender	--	-.38*	--	--
Change in R^2	--	.06*	--	--
R^2 for final model	.19*	.07	.14*	.04
Overall F for final model	F (4, 83)=4.71*	F (4, 83)=1.53	F (3, 84)=4.40*	F (2, 85)=1.62

*Note: * indicates p < .05, + indicates p < .10.*
Note: Gender is coded 0=male and 1=female; race/ethnicity is coded as 0=Caucasian and 1=minority; risk status is coded as 0=not at risk and 1=at risk.
Note: Changes in R^2 may not add up to the final R^2 due to rounding.

Discussion

The current study was one of the first empirical attempts to apply a developmental theoretical framework to the study of adolescent dating aggression. The study employed a multi-method, longitudinal design to examine hypotheses predicting main effects of autonomy and relatedness demonstrated in mother-adolescent interactions on adolescent involvement in dating aggression two years later. The findings suggest that whereas the inhibition of relatedness in mother-adolescent relationships is predictive of involvement in dating aggression, the effect of autonomy promotion has different developmental implications for adolescent dating aggression depending on the adolescent's gender, race/ethnicity, and level of risk. The findings support an emerging idea in the autonomy and relatedness literature that we "need to move beyond simple 'one size fits all' main effects explanations of optimal…autonomy processes. Although for the large majority of adolescents, autonomy development within the family appears to be a positive factor, this does not appear to be universally true." (Allen et al., 2002, p. 64). Further, because a different predictive pattern emerged for autonomy as compared to relatedness, this study indicates that these variables may need to be examined as independent constructs predicting different pathways to adolescent behavior, mental health, and adjustment rather than as parallel constructs that, in tandem, have similar expected effects on adolescent outcomes. The moderation effects of gender, race/ethnicity and risk also suggest the need for further research of adolescents' negotiation of autonomy with parents *and* their negotiation of intimate dating relationships as dynamic processes that may operate very differently for adolescents living in a variety of ecological contexts.

Main Effects of Autonomy and Relatedness

The finding that maternal inhibition of relatedness positively predicted involvement in victimization in a model that approached significance and approached significance in predicting perpetration of psychological dating aggression is consistent with previous research indicating that the inhibition of relatedness is linked to negative adolescent outcomes (Allen & Hauser, 1996; Allen, Hauser, Eickholt et al., 1994). The findings are also consistent with expectations from social learning theory (Bandura, 1977) in that adolescents may be enacting behaviors that their mothers have modeled in attempting to resolve conflictual interpersonal interactions. The specific behaviors that were coded as inhibiting relatedness (e.g., ignoring or distracting behaviors and making rude/hostile/insulting remarks) are similar to behaviors often conceptualized as psychologically aggressive; in fact, one of the CTS items for psychological aggression involves insulting or swearing at the target person. Therefore, it is consistent with social learning theory that adolescents whose mothers exhibit behaviors which inhibit relatedness and which can be categorized as psychologically aggressive are reporting perpetrating or experiencing psychologically aggressive behaviors in their dating relationships two years later.

Contrary to expectations, maternal support of autonomy was *positively* related to adolescent reports of perpetration of psychological aggression. This finding seems inconsistent with previous literature which has found that mother's support of autonomy is related to positive adolescent outcomes (Allen et al., 1997), such as decreases in negative affect (Allen, Hauser, Eickholt et al., 1994) and parent-child conflict (Allen et al., 1996) and increases in overall social functioning (McElhaney & Allen, 2001).

However, emerging research on autonomy suggests that high levels of support for autonomy may not predict positive outcomes for all adolescents (Allen et al., 2002; McElhaney & Allen, 2001), and the present finding may represent one of those instances. Further, it is *possible* that when adolescents report perpetration of psychological aggression, those behaviors may represent their attempts to exert autonomy within dating relationships, albeit in somewhat maladaptive ways. Adolescents' dating relationships may be characterized by less certainty about individual roles than adult intimate relationships (Feiring, 1999), and therefore may be a context in which adolescent dating partners are attempting to establish their own autonomy and independence with each other. An interesting direction for future research into this possibility would be to observe the promotion of autonomy and relatedness in interaction tasks between dating partners and assess whether autonomy struggles characterize the relational context of adolescents dating relationships in which psychological aggression is present. Future research could also use qualitative methodologies to ask adolescents about their reasons for perpetrating psychological aggression and to investigate whether they are linked to attempts to establish independence within dating relationships. If so, then prevention and intervention efforts could build skills around more productive and proactive ways to establish a sense of independence and autonomy in the context of dating relationships.

Moderation Effects of Gender, Race/Ethnicity, and Risk

Significant interactions of gender, race/ethnicity, and risk status with behaviors supporting autonomy emerged in many of the analyses predicting involvement in dating aggression and explained substantial amounts of variance in several dependent variables. Gender moderated the relation between maternal support for autonomy and involvement

in dating aggression, whereas race/ethnicity and risk status were moderators of the relation between adolescents' behaviors supporting autonomy and involvement in dating aggression.

Processes Linked to Gender

Although it was hypothesized that mothers' behaviors supporting autonomy and relatedness would negatively predict adolescent involvement in dating aggression, for girls, the direction of the effect was exactly opposite of the expected effect. These results may be explained at least in part by considering social norms regarding gender roles in intimate relationships. Gilligan (1982) suggests that boys tend to respond to images of relationships first in terms of their independence and autonomy, while girls think of relationships first in terms of their connectedness to others, and that society may reinforce these different ways of approaching relationships through social norms. It is possible that as adolescents begin dating, girls would be expected to show greater concern with their relatedness to others while boys should be more concerned with autonomy and independence. Other researchers have noted that adolescence is a time of intensified differentiation of masculine and feminine personality characteristics in which boys and girls adhere closely to the appropriate gender stereotypes (J. Hill & Lynch, 1983), and may rely heavily on gender norms and stereotypes when forming their gender role expectations. This process may be particularly salient when adolescents are finding their way within new relationships (Feiring, 1999).

Therefore, girls whose mothers have encouraged and supported *autonomy* in their daughters may find themselves in dating relationships where their autonomy is not supported by their dating partner or may even be discouraged due to gender role

expectations. If this is the case, then increased levels of perpetration of physical aggression in these girls may represent a lashing out against the frustration of moving from autonomy-supportive relationships with parents to intimate relationships in which their dating partners are markedly less supportive of their autonomy. Similarly, increased levels of physical victimization for girls whose mothers were high in support for their autonomy may represent partners' responses to girls' attempts to establish autonomy in relationships where their partners expect them to be focused on relatedness.

However, it is important to note that gender socialization and gender norms may not be consistent across race/ethnicity, and therefore may not operate similarly for girls in the current sample. Way's (1998) qualitative research with urban, minority adolescents suggests that gender norms around issues of independence and relatedness may operate very differently for urban, racial/ethnic minority girls than they do for suburban, Caucasian girls. She suggests that urban African-American and Latina girls are often raised to be strong, independent and outspoken, unlike their suburban Caucasian counterparts who are socialized to be more passive. This racial/ethnic difference in gender role socialization may stem from efforts by ethnic minority parents to encourage independence and self-confidence as a means of equipping their daughters to function in a society that devalues and marginalizes them. Further, black women may encourage their daughters to become strong and independent leaders, because experiences of poverty, racism, and discrimination make it likely that the daughters will eventually become heads of household (Cauce et al., 1996; Ladner, 1979; Way, 1998).

Way's qualitative findings support these intimations, in that the urban, minority girls in her sample were extremely outspoken and willing to express their voices within

almost all of their relationships and roles, with one important exception: the girls in her sample indicated they were either silenced or self-silenced in dating relationships with boys. Way indicates that she was puzzled by girls' consistent withdrawal of their confident voices when it came to their dating relationships. Some girls indicated that they purposefully silenced themselves because they did not trust the boys with whom they were romantically involved, but another girl indicated that she felt silenced *by* boys in that she did not express herself to them for fear of rejection and loss. Although Way's work depicts important differences in gender socialization for Caucasian and minority girls, her findings regarding girls' roles and independence in their relationships with boys appear somewhat consistent with the more generalized gender roles in Caucasian communities. For both Caucasian and minority adolescents, it may be that girls feel they are expected to be passive in their dating relationships with boys, and that girls whose mothers encourage them to be autonomous have more conflict in their dating relationships as a result of contradictory expectations of roles regarding independence and autonomy.

It is important to note that gender did *not* moderate the relation between *adolescents'* support for autonomy and physical perpetration or victimization. For girls, there appears to be something specific about the *maternal* encouragement of autonomy, rather than the girls' own behaviors pertaining to autonomy, that predict increases in physical perpetration and victimization. Investigation of this interesting pattern is an important goal for future research in this area.

Processes Linked to Race/Ethnicity and Environmental Risk

Contrary to hypothesis, minority and at-risk participants who demonstrated high levels of autonomy promotion with their mothers reported *higher* levels of perpetration against their dating partners two years later, while adolescent autonomy support did not affect reports of perpetration for Caucasian and low risk participants. Given that race/ethnicity and risk were highly correlated in the current sample, explanations for these moderation effects may be rooted in similar underlying ecological and contextual factors.

One possible explanation for these findings is that the effects of the task of autonomy negotiation vary according to the ecological and social context in which the parent-adolescent relationship exists. Steinberg and colleagues (1991) suggest that "there is good reason to believe that the effects of specific parenting practices may in fact be moderated by the larger context in which a child lives" (p. 20). Research suggests that African-American and economically at-risk parents have different parenting styles than Caucasian parents and parents who live in more low-risk environments; these different styles may be necessary or at least reasonable adaptations to economic hardship, neighborhood danger, and other life stressors (Barrera et al., 2002; McLoyd, 1990). Parenting styles, as they relate to parental demands for obedience vs. allowances for autonomy and as they relate to parental warmth, are directly relevant to the current discussion of parent-adolescent negotiations of autonomy and relatedness.

Extensive research on African-American and environmentally at-risk families indicates that parents in these families are more likely to employ an authoritarian parenting style in raising their children, which is characterized by high levels of parental

control, high demand for obedience, little allowance for child autonomy, and low parental warmth (Baumrind, 1971, 1972, 1973; Darling & Steinberg, 1993; Dornbusch, Ritter, Liederman, Roberts, & Fraleigh, 1987; Steinberg et al., 1991). The findings in the current study that the mothers of minority participants demonstrated lower levels of relatedness promotion than the mothers of Caucasian adolescents and that mothers of at-risk participants demonstrated lower levels of autonomy promotion than mothers of lower-risk teens suggest that cultural variations in parenting styles may be evident in this sample as well. Research on parenting styles suggests that the *authoritative* parenting style, which is characterized by encouragement for the child's autonomy, open communication, and parental warmth and acceptance *within* the context of firm rules, standards, and expectations for mature behavior from the child, is associated with positive effects. In contrast, the *authoritarian* parenting style associated more frequently with African-American and at-risk parents is seen as having negative consequences for child and adolescent outcomes (Baumrind, 1971, 1973; Dornbusch et al., 1987; Maccoby & Martin, 1983; Steinberg et al., 1991). However, the positive effects of the authoritative and the negative effects of the authoritarian styles are strongest for middle-class white families; the effect of the authoritarian style on negative child and adolescent outcomes has been found to be either weak or non-existent within African-American and high risk families (Baumrind, 1972; Dornbusch et al., 1987; Steinberg et al., 1991).

Many researchers suggest that the demand for obedience and lower promotion of autonomy that characterizes the authoritarian parenting style is actually an adaptive response to the more dangerous contexts in which African-American and at-risk families live (Allen et al., 1997; Baumrind, 1972; Cauce et al., 1996; Darling & Steinberg, 1993;

Dornbusch et al., 1987; Howard, Kaljee, Rachuba, & Cross, 2003; McLoyd, 1990; Steinberg et al., 1991). The difference in demand for obedience and lower allowances of freedom may stem from the need for parents of at-risk teens to balance the amount of autonomy they grant their teenager with the need to keep their children safe. Whereas mothers who live in safe neighborhoods may be able to grant their adolescents a certain amount of autonomy or independence without fear of putting them in danger, mothers who live in more crime-ridden neighborhoods often grant their children less independence than they would like in exchange for ensuring their children's safety in unsafe environments. Qualitative research with economically disadvantaged African-American mothers supports this assertion; mothers in Cauce and colleague's (1996) study reported that they struggled to support their daughters' strivings for independence and autonomy while also making sure that they kept their daughters safe from danger. One mother in their study said she wanted to allow her children to play outside, walk to school, and do other independent activities that the mother had been able to do as a child, but that she "found herself ever watchful, trying to keep them as close to the house as possible because of drug dealing and gang activity in her neighborhood (Cauce et al., 1996, p. 111). Low promotion of autonomy in these mother-adolescent dyads, then, may reflect effective parenting in the face of a dangerous reality rather than a failure to support their adolescents in a major developmental task. Again, this assertion is supported in the current sample where mothers of at-risk adolescent demonstrated lower levels of support for their adolescents' autonomy than the mothers of adolescents who were not at risk.

If we assume that the effects of developmental processes within the parent-child relationship may be different for families depending on the social and ecological context in which the parent-child relationship exists, it stands to reason that autonomy promotion may differentially predict adolescent outcomes depending on the context of the parent-adolescent relationship. This explanation is empirically supported by the findings of McElhaney and Allen (2001) and Allen and colleagues (2002), who found that autonomy promotion predicted negative outcomes for the at-risk and more insecurely-preoccupied adolescents in their samples.

McElhaney and Allen's (2001) findings support the suggestion that autonomy promotion may actually put adolescents at greater risk when they live in more dangerous and risky environments and that parents may be making conscious and adaptive decisions to grant their teenagers less autonomy in these environments. For high-risk adolescents in their study, maternal inhibiting of autonomy was related to positive mother-child relationship quality, while adolescent promotion of autonomy was related to higher delinquent behavior and lower mother-child relationship quality. These findings are consistent with those of the current study, which found that for at-risk participants, adolescent promotion of autonomy was related to higher levels of perpetration of physical dating aggression and that the same was true for minority vs. Caucasian participants in predicting psychological perpetration against a dating partner. Based on these findings, it is possible that African-American and at-risk adolescents who are displaying higher levels of autonomy with their mothers may actually be at *greater* risk for engaging in unhealthy and anti-social behaviors than adolescents demonstrating lower levels of autonomy who live in similar risky environments. This would explain why the pathway

from autonomy promotion to adolescent outcomes differs for African-American and at-risk teens as compared to Caucasian and lower-risk youth.

Similarly, Allen et al. (2002) found the relation between autonomy promotion and adolescent outcomes is different for teens with different attachment styles. Their findings demonstrated that maternal promotion of autonomy in dyadic interactions with adolescents who were insecurely preoccupied with respect to attachment was actually related to *lower* social skills and *higher* rates of delinquency. They concluded that these teens may perceive their mothers' promotion of autonomy as threatening and overwhelming, as the move toward greater autonomy in parent-adolescent interactions may represent an implied separation to the adolescent and cause increased anger and anxiety. Although attachment security was not examined in this study, Allen's findings may shed light on those of the current study. Insecure-preoccupied attachment styles are often associated with inconsistent parenting, low parental warmth and acceptance, and strict discipline (Bowlby, 1982), all of which are characteristics of the previously discussed parenting styles and behaviors often reported as more prevalent in minority and at-risk parents. These commonalities in parenting characteristics associated with insecure-attachment and with minorities and at-risk parents may help shed light on why Allen and colleagues' findings of the moderating effect of attachment mirror the moderation effects of race/ethnicity and risk in the current study. In the present study, it is possible that minority and at-risk adolescents living in risky environments may feel similarly threatened by autonomy from parents because of the potential danger that such autonomy might entail. Regardless of this possible link to attachment styles, however, it is reasonable to assume that these differences in parenting styles and consequently in

parent-adolescent relationships suggest a different pathway between autonomy promotion and subsequent involvement in maladaptive behavior for minority and at-risk adolescents.

In sum, the moderation effects in this study suggest the need to examine the social, ecological, and contextual factors influencing the lives of adolescents when conducting research on adolescent dating aggression and developmental pathways to dating aggression (Bronfenbrenner, 1979). The variables of gender, race/ethnicity, and environmental risk are merely markers of 'social address' (Bronfenbrenner, 1988) that have limited value in and of themselves, but serve to alert us to underlying social, environmental, and contextual factors that exist in the macrosystems in which adolescents live. The moderation findings could indicate both meaningful differences in autonomy processes for different groups and/or meaningful differences in the use/nature of aggression across groups. Only through exploration of the social and ecological contexts underlying these social addresses can we begin to understand such differences.

It is of critical importance that future research on adolescent dating aggression as well as research on the developmental processes of autonomy and relatedness take into account the ecological context in which adolescents live and initiate their first intimate relationships. It is interesting that in all of the moderation models with gender, race/ethnicity, and risk, the groups of adolescents with less power in each of the dichotomies (girls, racial/ethnic minorities, adolescents at-risk) exhibited almost identical patterns with respect to autonomy support and involvement in dating aggression. It is possible that macrolevel issues of power and control and historical oppression influence both the meaning of the aggression perpetrated and experienced within dating

relationships and the developmental processes that predicate the aggression. Some researchers of adult intimate partner violence argue that issues of power and control are central to any discussion of intimate aggression (Anderson, 1997; Dobash & Dobash, 1979; Yllo, 1993) and note that the context in which aggression occurs must be considered in attempts to assess the meaning and consequences of aggression (Cook & Goodman, in press; Swan & Snow, 2002). For instance, if girls who are encouraged to be autonomous become involved in intimate dating relationships where they are being coerced or forced into unwanted sexual activity because of their partners' gender role expectations of them, they may be likely to respond to such coercion/force with physical aggression, in defense of their own autonomy, whereas girls encouraged to be more passive and less autonomous might react in different ways. Physical aggression used in this context has a very different meaning than physical aggression perpetrated for the purpose of exerting or maintaining power over a person, and the ecological factors discussed thus far can reasonably be expected to have different effects for boys and girls, Caucasians and minority adolescents, and at-risk vs. non at-risk adolescents. These labels, or markers of social address, need to be interpreted in future research as a starting point for a deeper exploration of how ecological factors influence adolescent dating aggression and its developmental pathways, rather than as an indication that these factors must merely be controlled for in the development of one causal pathway to dating aggression for all adolescents. The findings of this study indicate that there are multiple pathways to adolescent dating aggression and that these pathways may vary according to important ecological factors influencing adolescent development.

Gender, Race/Ethnicity, and Risk as Contexts for Understanding Dating Aggression

In addition to the important moderation effects discussed thus far, it is important to note the main effects of gender and race/ethnicity on involvement in adolescent dating aggression as well. Consistent with much of the previous literature on adolescent dating aggression, girls reported higher levels of perpetration of physical and psychological aggression against their dating partners, while no gender differences were detected for reports of victimization. These findings, although not the main focus of this study, have important implications for prevention and intervention efforts, especially when considered in light of their consistency with the findings of other studies across a diversity of samples (Avery-Leaf et al., 1997; Bookwala et al., 1992; Chase et al., 1998; Foo & Margolin, 1995; Foshee, 1996; Malik et al., 1997; O'Keefe & Treister, 1998; O'Keeffe et al., 1986; Shook et al., 2000). It is of crucial importance to understand whether these gender differences in perpetration reports stem from differences in reporting or true differences in perpetration. It is possible that societal norms around female-to-male aggression vs. male-to-female aggression make it more “acceptable” for girls to report the aggression they are perpetrating in their dating relationships than it is for boys. Sugarman and Hotaling (1997) conducted a meta-analysis suggesting that reports of perpetration in intimate relationships was more strongly associated with social desirability scores than were reports of victimization. It may be that the pull for social desirability affects boys’ reports of perpetration more than it does girls’ reports, although this possibility has not been documented empirically. Future research on adolescent dating aggression should attempt to examine potential gender differences in reporting of perpetration.

Race/ethnicity was a significant predictor in regression models examining physical perpetration. Racial/ethnic minority participants reported higher levels of perpetration of physical aggression against their partners than Caucasian participants did, although there were no racial/ethnic differences on any of the other aggression variables. Research on dating aggression has generally focused on Caucasian samples (Jackson, 1999), so little is known or understood about the nature of dating aggression in African-American and other racial/ethnic minority adolescent samples. A few other studies have found that African-Americans have higher rates of perpetration of aggression than Caucasians (Malik et al., 1997; O'Keefe & Treister, 1998), although these differences were often moderated by gender and other contextual variables. Future research on adolescent dating aggression should investigate the perpetration of physical aggression and other types of dating aggression among racial/ethnic minority adolescents. Although highly correlated with race/ethnicity, risk status emerged as a distinct variable of interest in the current study. Unlike gender and race/ethnicity, there were no main effects of risk status on any of the dependent dating aggression variables.

Group Differences in Adolescent Demonstrations of Autonomy and Relatedness

It is also worth noting several group differences on the autonomy and relatedness variables. There were few group differences in maternal behaviors supporting autonomy and relatedness; there were no differences in maternal behavior by gender, and the race/ethnicity difference in maternal relatedness promotion and the risk level difference in maternal support for autonomy were discussed previously. However, a number of differences emerged with respect to adolescent demonstrations of autonomy and relatedness. Girls demonstrated higher levels of both supporting autonomy and inhibiting

autonomy than boys. This gender difference was surprising in light of the fact that boys are often considered to be more focused on independence and autonomy than girls, while girls are considered to be more focused on relational issues than boys (Gilligan, 1982). It is possible however, that this finding indicates that girls are in general more expressive than boys in interactions with their mothers around issues relating to autonomy, since they were higher in both positive and negative expressions of autonomy-related behavior.

Racial/ethnic group differences also emerged on three of the four adolescent autonomy and relatedness behaviors while risk differences emerged on all four of the adolescent autonomy and relatedness variables. Minority and at-risk adolescents demonstrated fewer behaviors supporting and inhibiting autonomy and relatedness than Caucasian and low-risk participants; thus it appears that these adolescents had more muted interactions with their mothers. This finding is consistent with research on racial/ethnic and high-risk differences in parental control, which could explain why minority and at-risk adolescents do less talking or "talking back" in their interactions with their mothers. If they are expected to listen to their mothers more than they are expected to interact as an equal player, then we would expect to see more muted interactional styles on the part of these adolescents when discussing conflict with their mothers. Although it is certainly possible that these group differences in demonstrations of autonomy and relatedness reflect true differences among groups that may be attributable to the social and ecological factors noted earlier, they may also suggest that the coding system for autonomy and relatedness may need to be evaluated for its sensitivity to variations in the demonstrations of autonomy among boys and girls, Caucasians and minorities, and low-risk vs. high risk teens.

Strengths, Limitations, and Directions for Future Research

The findings of this study contribute substantially to both the literature regarding the developmental process of establishing autonomy and relatedness and to the literature on adolescent dating aggression. First, this study is one of the first empirical attempts to apply a developmental framework to the study of adolescent dating aggression. It investigates the role of maternal and adolescent promotion and inhibition of autonomy and relatedness, the development of which is considered to be a major developmental task in adolescence (Allen et al., 1997), in predicting involvement in dating aggression. In doing so, it is one of the first studies to examine the parent-adolescent relationship as a predictor of aggression experienced in a relationship with a romantic partner. Further, its longitudinal design adds to the primarily cross-sectional literature examining correlates of adolescent dating aggression, and its multi-method approach contributes to a literature on adolescent dating aggression that is primarily characterized by self-report surveys. Longitudinal and multi-method designs are time-intensive and difficult to execute, but they provide very rich data with which to examine complex phenomena such as dating aggression.

An additional strength of the study is that it examines both physical and psychological aggression, in recognition that aggression can manifest in relationships in forms other than merely physical aggression. Further, as much of the literature on adolescent dating aggression has focused on male perpetration and female victimization (Foshee, 2005), a strength of this study is that it examines both perpetration and victimization of dating aggression in the entire sample. Finally, the examination of gender, race/ethnicity, and risk as moderators of the pathways to aggression sheds further

light on potential differences in the ways in which aggression manifests itself within different groups of adolescents. Further investigation is needed into potential differences in the meaning of aggression and the reasons for use of aggression among different groups of adolescents. For instance, if adolescent girls and boys are perpetrating similar amounts of aggression, but girls who have been encouraged to be autonomous are perpetrating aggression as a response to efforts to suppress their autonomy in their dating relationships, then a very different intervention strategy is needed for girls perpetrating aggression for this reason than for boys who might be perpetrating aggression for a different reason. Future research should employ qualitative and quantitative methods to explore adolescents' reasons for perpetrating aggression, whether certain types of aggression have different meanings or implications among different groups of adolescents, and differences in the consequences of aggression for different groups of adolescents.

This study contributes to the literature on autonomy and relatedness as well. The findings indicate that whereas processes of autonomy and relatedness often act in concert to contribute to development, these processes may also need to be considered independently as contributors to different aspects of development. Additionally, through the study's examination of gender, race/ethnicity, and risk, the findings also support an emerging idea in the literature on autonomy and relatedness that support for autonomy may have different effects for different groups of adolescents; they further confirm the idea that the contexts in which adolescents exist and form intimate relationships are important factors determining the effects of autonomy promotion on adolescent outcomes.

Further investigation is needed into the ways in which we conceptualize autonomy and relatedness behaviors for different gender, cultural, and contextual groups. It is necessary that we evaluate our conceptualization of these constructs and their operational definitions of them to ensure that they are culturally sensitive and culturally appropriate for all adolescent samples. Many gender, racial/ethnic, and risk differences in the expression of both supporting and inhibiting autonomy and relatedness behaviors suggest that it is possible that the coding system does not adequately assess culturally or gender specific demonstrations of autonomy and relatedness. Further, the coders of mother-adolescent interactions for this study were relatively homogenous in terms of race/ethnicity and gender (most were Caucasian women). Thus, it is possible not only that the coding system itself is insensitive to such variations, but that the racial-ethnic and gender identity of the coders may further affect the sensitivity of the coding system to capture gender, racial/ethnic, or social class variability in expressions of autonomy and relatedness. Future research with this coding system should also attempt to employ as diverse a group of coders as possible and investigate the various ways in which these constructs operate within different contextual, cultural, and gender norms. Future research should employ both qualitative and quantitative multi-method approaches to examine gender and cultural differences in the examination of autonomy and relatedness.

Despite the current study's strengths, there are a number of limitations. First, the sample size for the current study was small (N=88), which limited statistical power and allowed for the detection of only large effect sizes (Cohen, 1992). Due to the limited statistical power, many other potentially relevant variables could not be included in study analyses. For instance, the influence of peers on adolescent behavior, norms and the

development of romantic relationships often equals or supercedes that of parents (Brown, 1999; Collins & Sroufe, 1999; Connolly & Goldberg, 1999; Foshee et al., 2001). This study did not examine the establishment of autonomy and relatedness with peers, nor did it examine peer norms around aggressive behaviors in general and aggressive behavior within dating relationships specifically. It is reasonable to hypothesize that such peer-related contextual factors would mediate the relation between autonomy and relatedness demonstrated in parent-adolescent reactions and later involvement in dating aggression. Other important variables that were not included in the analyses due to lack of power include family composition, exposure to intimate partner abuse and child abuse in the home, exposure to community violence, substance abuse, conduct problems, and attachment status. Future research studies with larger sample sizes could examine the various contributions of these variables in pathways to adolescent dating aggression through the use of structural equation modeling.

Further, the current study did not incorporate any information about the context of the dating relationships themselves, which is an important factor to consider in future studies of adolescent dating aggression. The context of the dating relationship could help elucidate the nature of both perpetration and victimization of dating aggression. For instance, the use of physical aggression in a dating relationship where the perpetrator is physically resisting unwanted sexual advances or efforts to suppress the adolescents' autonomy takes on a different meaning than aggression perpetrated in a dating relationship where the perpetrator is trying to exert control and domination over his or her dating partner. Whenever possible, future research on the predictors of dating aggression should collect data about the context of the dating relationship itself, perhaps in the form

of coded interactions between dating partners or reports on the relationship from both dating partners.

Another important limitation to the current study is that it involved only mother-adolescent interactions in the observation of autonomy and relatedness behaviors. Too few fathers participated in the study to allow for meaningful analysis, but the absence of data on fathers excludes a potentially important member of the family system. In families where fathers are present, their support and inhibition of their adolescents' autonomy and relatedness may play an important and distinct role in involvement in dating aggression (Allen, Hauser, Bell, & O'Connor, 1994), and may also have different implications for girls and boys, Caucasians and racial/ethnic minorities, and high-risk vs. low-risk adolescents.

The findings of the current study should be interpreted with caution for two other important reasons. First, the current sample was purposefully recruited to be at-risk for academic failure, and therefore the findings of this study cannot be generalized to all adolescents without further replication. Second, although the longitudinal nature of the design allows us to examine pre-existing factors that may have lead to involvement in dating aggression, it is important to remember that the lack of experimental design does not allow the inference of causality.

The field of research on adolescent dating aggression has a long way to go before we fully understand the developmental, ecological, interpersonal, and psychosocial precursors of adolescents' involvement in dating aggression, both as perpetrators and as victims. Further, it is imperative to recognize that these precursors may operate differently for different subsets of adolescents whose gender, race/ethnicity, and

socioeconomic and environmental risk status create very different contexts from which they approach interpersonal relationships. Similarly, the literature on autonomy and relatedness is indicating a shift away from a universal hypothesis about the predictive power of these developmental constructs and is beginning to investigate the ways in which these constructs operate differently for adolescents in different contexts.

Understanding the relevancy of developmental constructs in adolescent involvement in dating aggression and the potential ecological and cultural variations in these constructs is critical to the development of prevention and intervention efforts. Failure to address and understand the potential gender, racial/ethnic, cultural, socioeconomic, and risk variations in processes that lead to dating aggression leads to prevention efforts that apply a single strategy to preventing dating aggression. Such approaches to prevention are destined to underserve certain segments of our adolescent population. Prevention research on adolescent dating aggression should include 1) the examination of parental- and peer-related developmental processes such as the development of autonomy and relatedness as developmental precursors to adolescent dating aggression; 2) the examination of the influence of cultural and social norms surrounding the meaning, use, and consequences of aggression; 3) the investigation of demographic and contextual moderators in any examination of predictors of dating aggression, and 4) the examination of perpetration and victimization of physical, psychological, and sexual aggression in adolescent dating relationships. Only then will we begin to develop a full understanding of the scope of dating aggression across a diversity of adolescent populations.

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Appendix A

Autonomy and Relatedness Coding System

Variable		Behavior	Mother → Adolescent	Adolescent → Mother
Behaviors Supporting Autonomy (Mean score of A, B, & C)	A	Stating reasons related to one's own position	0-4	0-4
	B	Stating reasons related to the other's position	0-4	0-4
	C	Exhibiting confidence	0-4	0-4
Behaviors Inhibiting Autonomy (Mean score of D, E, & F)	D	Recanting or collapsing one's position	0-4	0-4
	E	Blurring/overpersonalizing	0-4	0-4
	F	Pressuring	0-4	0-4
Behaviors Supporting Relatedness (Mean score of G, H, & I)	G	Making Queries	0-4	0-4
	H	Making validating remarks	0-4	0-4
	I	Exhibiting engaged listening	0-4	0-4
Behaviors Inhibiting Relatedness (Mean score of J & K)	J	Exhibiting ignoring or distracting behaviors	0-4	0-4
	K	Making insulting/rude/hostile remarks	0-4	0-4

Note: The scale for each behavior is on a five-point likert scale, where 0=not at all characteristic of the person's interaction with the other and 4=highly characteristic of the person's interaction with the other

Appendix B
CTS for general dating partners

Below is a list of things that a romantic partner might do when you two have a conflict or disagreement. For each item, indicate about how often one or more romantic partners has done this with you OVER THE PAST YEAR by circling one of the responses listed to the right. A romantic partner can be a boyfriend or a girlfriend, someone you dated or are currently dating, straight or gay.

How often has one or more romantic partners done this with you in the past year?

1. Discussed the issue calmly	Never	Once or Twice	Several Times	Many Times
2. Got information to back up his/her own side	Never	Once or Twice	Several Times	Many Times
3. Brought in or tried to bring in someone to help settle things	Never	Once or Twice	Several Times	Many Times
4. Insulted or swore at you	Never	Once or Twice	Several Times	Many Times
5. Sulked and/or refused to talk about it	Never	Once or Twice	Several Times	Many Times
6. Stomped out of the room (or house or yard)	Never	Once or Twice	Several Times	Many Times
7. Cried	Never	Once or Twice	Several Times	Many Times
8. Did or said something to spite you	Never	Once or Twice	Several Times	Many Times
9. Threatened to hit or throw something at you	Never	Once or Twice	Several Times	Many Times
10. Threw, smashed, hit or kicked something	Never	Once or Twice	Several Times	Many Times

How often has one or more romantic partner done this with you in the past year?

11. Threw something at you	Never	Once or Twice	Several Times	Many Times
12. Pushed, grabbed or shoved you	Never	Once or Twice	Several Times	Many Times
13. Slapped you	Never	Once or Twice	Several Times	Many Times
14. Kicked, bit or hit you with a fist	Never	Once or Twice	Several Times	Many Times
15. Hit or tried to hit you with a belt, hairbrush, paddle, stick, or similar item	Never	Once or Twice	Several Times	Many Times
16. Hit or tried to hit you with a club, baseball bat, lamp, chair or similarly heavy object	Never	Once or Twice	Several Times	Many Times

For items 17-21, please continue to rate both how often each item has happened in the past year. If you answer that any of these items has happened to you, however, we may wish to talk to you further about your experiences.

How often has one or more romantic partners done this with you in the past year?

17. Beat you up	Never	Once or Twice	Several Times	Many Times
18. Choked you	Never	Once or Twice	Several Times	Many Times
19. Purposely burned or scalded you	Never	Once or Twice	Several Times	Many Times
20. Threatened you with a knife or gun	Never	Once or Twice	Several Times	Many Times
21. Used a knife or gun on you	Never	Once or Twice	Several Times	Many Times
22. Other _____	Never	Once or Twice	Several Times	Many Times

Below is a list of things that YOU might do when you and a romantic partner have a conflict or disagreement. For each item, indicate about how often you have done this with one or more romantic partners OVER THE PAST YEAR by circling one of the responses listed to the right.

How often has one or more romantic partners done this with you in the past year?

1. Discussed the issue calmly	Never	Once or Twice	Several Times	Many Times
2. Got information to back up your side	Never	Once or Twice	Several Times	Many Times
3. Brought in or tried to bring in someone to help settle things	Never	Once or Twice	Several Times	Many Times
4. Insulted or swore at the person	Never	Once or Twice	Several Times	Many Times
5. Sulked and/or refused to talk about it	Never	Once or Twice	Several Times	Many Times
6. Stomped out of the room (or house or yard)	Never	Once or Twice	Several Times	Many Times
7. Cried	Never	Once or Twice	Several Times	Many Times
8. Did or said something to spite the person	Never	Once or Twice	Several Times	Many Times
9. Threatened to hit or throw something <u>at</u> them	Never	Once or Twice	Several Times	Many Times
10. Threw, smashed, hit or kicked <u>something</u>	Never	Once or Twice	Several Times	Many Times
11. Threw something <u>at</u> them	Never	Once or Twice	Several Times	Many Times
12. Pushed, grabbed or shoved them	Never	Once or Twice	Several Times	Many Times

13. Slapped them	Never	Once or Twice	Several Times	Many Times
14. Kicked, bit or hit them with a fist	Never	Once or Twice	Several Times	Many Times

How often have you done this with one or more romantic partners in the past year?

15. Hit or tried to hit you with a belt, hairbrush, paddle, stick, or similar item	Never	Once or Twice	Several Times	Many Times
16. Hit or tried to hit you with a club, baseball bat, lamp, chair or similarly heavy object	Never	Once or Twice	Several Times	Many Times

For items 17-21, please continue to rate both how often each item has happened in the past year. If you answer that any of these items has happened, however, we may wish to talk to you further about your experiences.

How often have you done this with one or more romantic partners in the past year?

17. Beat them up	Never	Once or Twice	Several Times	Many Times
18. Choked them	Never	Once or Twice	Several Times	Many Times
19. Purposely burned or scalded them	Never	Once or Twice	Several Times	Many Times
20. Threatened them with a knife or gun	Never	Once or Twice	Several Times	Many Times
21. Used a knife or gun on them	Never	Once or Twice	Several Times	Many Times
22. Other _____	Never	Once or Twice	Several Times	Many Times