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Factors Linking Childhood Experiences to Adult Romantic Relationships among African Americans

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Abstract

It is well known that a high quality relationship with a romantic partner is related to a variety of positive outcomes associated with health and well-being. Establishing such relationships is an important developmental task for young adults and past research indicates that there is a link between experiences in the family of origin and the success of later intimate relationships. It has been suggested that this association can be explained by the acquisition of social competencies (e.g., emotions, schemas, traits) that are acquired during childhood in the family of origin and, in turn, influence interaction with adult romantic partners. The current study builds on this foundation by identifying particular competencies expected to explain the association between childhood exposure to supportive and harsh parenting and later patterns of interaction with romantic partners. Specifically, we examine anger management, attachment style, hostile attribution bias, and self-control as potential mediators using prospective, longitudinal data from a sample of 345 African American young adults. Results from structural equation modeling indicate that each of the mediators in our study accounts for a significant portion of the effect of parenting on the quality of adult romantic relationships although the constructs linking parenting to warm interactions with romantic partners are somewhat different from those that link parenting to hostile interactions with romantic partners. Even after accounting for the effect of the mediators, there is

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still a direct effect of parenting on both warm/loving and hostile/aggressive interactions with romantic partner. Implications for theory and practice are discussed.

Keywords

parenting; romantic relationships; intergenerational transmission

The establishment of stable, high quality intimate relationships is an important developmental task for young adults and such relationships are of consequence for the well-being of individuals as well as society (Conger, Cui, Bryant & Elder 2000). Research has established that close social relationships, especially those involving romantic partners, promote physical, emotional, and economic health whereas failure to establish such social bonds predicts physical, emotional and economic distress for adults (Amato, 2010; Beach & Whisman, 2012; Gottman, 1994; Wade & Pevalin, 2005; Wickrama, Lorenz, Conger & Elder, 1997) as well as children (Amato, 2010; Conger, et al., 2000; Fomby & Cherlin, 2007). Indeed, distress in intimate relationships is the leading reason for adults to seek psychological services (Bradbury, 1998). Such psychological distress is also related to an increase in the consumption of food, alcohol, and smoking (Umberson & Montez, 2010). In addition to the negative impact of these health risk behaviors and their consequences on individuals, they are also a major social concern.

While the evidence is clear regarding the importance of interpersonal intimacy for individual well-being there is limited understanding of the developmental origins of such relationships. The few studies that address this issue often rely on retrospective reports, cross-sectional data, and/or do not include minority samples. Using a prospective, longitudinal study design, an African American sample and a developmental framework, the current study will identify individual competencies proposed to mediate the influence of parenting experienced during childhood on adult romantic relationship quality.

Family is the primary agent of socialization during childhood and, even in adolescence, it continues to be more influential than any other single factor (Simons, Simons & Wallace, 2004). Experiences with parents during childhood are associated with the development of numerous individuals characteristics, many of which been shown to influence the quality of adult relationships. As a result, Conger and his colleagues (Conger et al., 2000; Bryant and Conger, 2002; Donellan et al., 2005; Bryant, 2006) have argued for a developmental perspective on adult romantic relationships. Such a model recognizes that individuals enter into adult intimate relationships having already been exposed to a variety of influences, the most powerful of which is the family or origin. Over time, experiences in the family of origin, particularly the quality of the parent-child relationship, have a major impact upon subsequent patterns of interaction with adult romantic partners through their impact on youth's acquisition of characteristics important to intimate relationships success (Bryant, 2006; Conger, Cui, Bryant & Elder, 2000). Youth are socialized by their family to behave in particular ways which serve to prime them to behave in similar ways with intimate partners. Adult romantic relationships are the consequence of a "carefully scripted sequence of foundational relationships with family in earlier life stages" (Collins & Van Dulman, 2006).

Foundational relationships with parents establish a pattern for other close relationships. For example, supportive parenting, which is characterized by engaging in positive communication, expressions of affection, and behaving in a nurturing way toward one's child, is positively associated with the child's warm, loving romantic relationships in adulthood. On the other hand, harsh parenting, which is characterized by hostile, angry interactions with the child that includes yelling and/or insults as well as the use of physical punishment, is associated with the child's hostile and aggressive romantic relationships in adulthood. Most studies, however, have not investigated the specific pathways whereby parental behavior is linked to adult children's quality of interaction with romantic partners.

In addition to addressing the gap in the literature regarding the constructs that may mediate the effect of parenting on adult romantic relationships, the current study extends past research in two additional ways. First, while most studies focus on either positive or negative interactions or combine them into a single continuous variable, the current study treats these as two separate variables when assessing both parenting and romantic partner interactions. Global assessments of romantic relationships have been challenged on the basis that positive and negative evaluations represent separate, though related, relationship dimensions (Fincham, Beach, & Kemp-Fincham, 1997). Similarly, parenting scholars (Simons, Simons, Hancock, & Fincham, 2012) have argued for a distinction between supportive and harsh parenting practices as these two dimensions of parenting often vary independently and influence different young adult outcomes. Therefore, in the present study we examine the extent to which supportive and harsh parenting differ in their direct and mediating effects on both hostility and warmth in adult romantic relationships. Finally, past research on this association has focused on European American samples. This study is the first to examine the relationship in an African American sample.

Although researchers have speculated about the constructs that link parenting practices to subsequent intimate relationships (e.g., attachment orientation, emotional regulation), these hypotheses have rarely been subject to empirical test. As a result, little is known about the specific variables that link childhood experiences in the family of origin to patterns of interaction with adult romantic partners. The present study addresses this absence by examining the extent to which the effects of parental behavior on offspring's adult romantic relationships is mediated by factors that have been identified in past research.

Identifying the Mediating Constructs

Our selection of potential mediating mechanisms was guided by findings from a profusion of studies (e.g., Cook, Fine, & House, 1995; Mischel, 2004; Mischel & Shoda, 1995) that have investigated the underlying dispositions that determine how individuals interpret and respond to interpersonal situations. Researchers generally agree that three types of constructs are particularly important. First, a person's perception of an interpersonal event or circumstance is influenced by their emotional state (Howard, 1995). Second, people tend to possess cognitive frameworks or schemas (Howard, 1995; Mischel, 2004) regarding the nature of the self, others, and relationships that influence how they interact with others. Finally, individuals have traits that are indicative of a characteristic style of interacting with others or of engaging the environment (Mischel, 2004). These three factors are thought to

inform interpersonal interaction by influencing the stimuli or cues that are selected for attention, the significance ascribed to these stimuli, and the path of action chosen from the perceived alternatives. Thus we set out to select specific constructs that corresponded to each of these three fundamental dispositions.

Our selection was informed by three criteria. There had to be strong evidence that the construct is: (1) learned during childhood in the family of origin based on interactions with parents; (2) assumed to be relatively stable by mid-to-late adolescence; and (3) established as an influence on interaction with others, especially adult romantic partners. It seems reasonable that any construct meeting these criteria might at least partially mediate the impact of parenting on interaction with romantic partners. Based on findings from extant research we identified anger management as the emotional state, attachment style and hostile attribution bias as the schemas, and self-control as the interpersonal trait important for inclusion in the developmental model to be tested. Although a few studies have examined the mediating effect of attachment style, to our knowledge no research has investigated the extent to which these other variables mediate the link between parenting and interaction with romantic partners. In the sections that follow, we review the literature associated with each of these constructs. Next, we formulate hypotheses regarding the manner in which each mediates the association between the type of parenting one is exposed to as a youth and the style of interaction one engages in with an adult romantic partner.

Anger Management

Anger management is an emotional state that is learned in the family of origin and has important implication for how one treats a romantic partner. Feelings of anger increase negative scanning of the environment, lower inhibition, and create a desire for retaliation or revenge (Berkowitz, 1990). Thus, one would expect anger to increase the probability that a person will behave in a hostile, verbally abusive fashion toward a romantic partner. Consistent with this idea, several studies have reported that persons who engage in hostility and verbal aggression toward their romantic partner often suffer from an inability to manage their anger (Cupach & Olson, 2006). We expect that individuals with this characteristic will be more hostile and aggressive with their romantic partner. In contrast, because many relatively happy, stable relationships are characterized by expressions of both positive and negative emotions (Fincham, Stanley, & Beach, 2007), we anticipate that an inability to regulate anger will have little if any significant effect on engaging in warm, loving behavior toward romantic partners. This expectation is based on past research indicating that angry, explosive individuals often engage in warm and supportive interactions with their romantic partners in between their episodes of anger (Ellis & Malamuth, 2000; Simons, et al., 2012).

Parental behavior is expected to directly influence level of anger management. Research has shown that supportive parenting soothes and calms children, thereby helping them to regulate emotions (Sroufe, 1996) and provides a positive model of how emotions are to be managed and expressed (Eisenberg, Cumberland, & Spinrad, 1998; Gottman, Katz & Hoover, 1997). Conversely, harsh and explosive parents trigger strong negative emotions in their children and teach through example that emotions often cannot or need not be controlled (Gottman et al., 1997). Both supportive and harsh approaches to parenting are

expected to have an indirect effect on hostility toward a romantic partner through their impact on anger management. In addition to being directly associated with anger management, we also expect parenting to be indirectly linked to anger management through attachment style, hostile attribution bias, and self-control.

Attachment Style

We examine attachment style as one schema that may link the effects of parenting to interactions with an adult romantic partner. Schemas are simplifying suppositions, based upon past experience, that make defining and responding to situations more efficient as they suggest which cues are most important, the meaning of these stimuli, and the likely consequence of various courses of action (Crick & Dodge, 1994). Hundreds of studies have investigated child and adolescent experiences that give rise to variations in such schemas as well as the consequences that such variation portends for ensuing relationships, especially those involving romantic partners (Feeney, 2008; Orobio de Castro, Veerman, Koops, Bosch & Monshouwer, 2002). Much of this research has focused upon cynical, distrusting schemas involving either insecure attachment or hostile attribution bias, both of which are considered in the present study.

Based on the nature of the relationship with their primary caregivers, children develop an attachment style that represents working models of relationships and are generalized to interaction with people and relationships (Bowlby, 1982). A loving, supportive caretaker promotes secure attachment and a trusting view of others, whereas a hostile, rejecting caregiver fosters insecure attachment and a distrusting, cynical view of others. This theory is uniquely suited to the study of romantic relationships as it posits that the attachment style that an individual develops during childhood influences subsequent interaction with intimate partners (Bretherton & Munholland, 1999; Crowell, Fraley, & Shaver, 1999).

There is strong evidence suggesting that insecurely attached individuals interpret and respond to romantic partner behavior differently than securely attached persons. For example, insecurely attached individuals are more likely than securely attached persons to perceive partners as insensitive and untrustworthy (Collins & Feeney, 2004), attribute malevolent intentions (Collins & Feeney, 2004; Pearce & Halford, 2008), engage in coercive actions (Simons, Simons, & Burt, 2008), and exhibit threatening and hostile behavior (Simpson, Rhodes, & Phillips, 1996). As a consequence, the romantic relationships of insecurely attached persons involve more conflict and less intimacy than do the relationships of securely attached individuals (see Feeney, 2008; Mikulincer & Shaver, 2007). While it is well established that parenting is associated with childhood attachment style, and attachment style is related to adult romantic relationships, only a few of these studies (e.g., Dinero, Conger, Shaver, Widaman, & Larsen-Rife, 2008; Simons, Simons, Lei, & Landor, 2012), has examined the extent to which the effect of parental behavior on adult romantic relationships is mediated by attachment style. The current study examines the mediating influence of attachment style after taking into account the effects of other potential mediating factors.

We expect that supportive parenting will increase the probability of secure attachment whereas harsh parenting will decrease this probability. Secure attachment, in turn, is

expected to promote warm, loving interactions with romantic partners while reducing the number of hostile, antagonistic exchanges. Further, we examine the extent to which the effect of insecure attachment style on hostility toward romantic partners is mediated by anger management. Attachment theorists have long maintained that secure attachment entails a high degree of emotional regulation and there is evidence that this is the case (Thompson, Lewis, & Calkins, 2008). Insecurely attached persons experience more anger in relationships, including those involving romantic partners, than do securely attached persons (Mikulincer & Shaver, 2007). Based upon these arguments and findings we expect that an inability to manage anger will mediate a significant proportion of the impact of attachment style on hostility directed toward romantic partners.

Hostile Attribution Bias

The second relational schema, hostile attribution bias, is also learned in the family of origin and has been shown to influence one's interaction with a romantic partner. Individuals with this schema believe that others are generally selfish and opportunistic and that one must muster a challenging, combative response in order to resist unfair treatment. Because they assume that other people have malevolent motives they tend to adopt an intimidating, confrontational style of interaction, which is seen as necessary to avoid exploitation. Studies have shown that exposure to harsh, rejecting parenting is a major cause of children developing this hostile view of relationships (Dodge, 1991; Dodge, Bates, & Pettit, 1990). Further, research has reported a robust association between hostile attributions and youth aggression (Orobio de Castro et al., 2002). Finally, there is evidence that aggressive adults (Bailey & Ostrov, 2008) demonstrate a hostile attribution bias and that it increases the probability of behaving aggressively with romantic partners (Holzworth-Munroe, 2000). Together, these findings suggest that a hostile attribution bias may be one of the mechanisms that links parenting practices to behaviors displayed toward romantic partners. Although past research has focused only on the link between harsh parenting and development of a hostile attribution bias, it seems reasonable to posit that supportive parenting, which communicates positive intentions and models non-aggressive strategies for exercising influence, would decrease the chances of an offspring acquiring a hostile attribution bias.

Further, the distrust and cynicism associated with this schema are expected to increase the probability of anger and, in turn, hostile behavior toward romantic partners. As a result, individuals who possess this schema likely assume that it is functional to demonstrate an angry reaction to disagreements. Thus, we posit that hostile attribution bias will be related to hostility toward romantic partner through its effect on anger management. Conversely, we expect to find little if any association between this schema and warm, loving behavior toward a romantic partner. When the relationship is operating smoothly, individuals with this perspective are as likely as those with a more trusting orientation to engage in genial behavior.

Self-control

Self-control is an interpersonal trait that has been shown to influence interpersonal interaction. Individuals high on self-control take into account the likely consequences of their behavior for themselves and others, control their impulses, and delay gratification

(Baumeister & Vohs, 2004). In contrast, those low on self-control are self-centered, impulsive, and prefer immediate rewards. Numerous studies have shown that individuals acquire a general level of self-control during childhood and that this trait is relatively stable by adolescence (Strayhorn, 2002). Research has demonstrated that quality of parenting has a major influence on a child's level of self-control. Supportive, involved parenting fosters self-control (Burt, Simons, & Simons, 2006; Hay, 2001) whereas children fail to develop self-control when they are exposed to harsh, inconsistent parenting (Belsky, Woodworth, & Crynic, 1996).

Extensive research, including a meta-analysis (Pratt & Cullen, 2000), indicates that low self-control increases the probability of engaging in aggressive behavior. Conflict is inevitable in romantic relationships and several studies have found that persons with low self-control are at risk for engaging in verbal and physical aggression toward their intimate partners (Finkel, DeWall, Slotter, Oaten, & Foshee, 2009). High self-control, on the other hand, would be expected to increase the changes of engaging in warm, loving behavior toward a romantic partner. Self-control involves delaying gratification as well as taking into account the feelings and rights of others. Such an orientation likely increases the likelihood of engaging in prosocial behavior toward others, including romantic partners. Based upon these arguments we hypothesize that supportive parenting will be positively associated with the development of self-control and harsh parenting negatively associated with it. Further, we expect to find that high self-control increases the probability of engaging in warm, loving behavior toward a romantic partner. Finally, the effect of selfcontrol on hostile, aggressive interaction is posited to be indirect through low anger management.

The Direct and Indirect Effects of Parenting

While we argue that in large measure the effects of parenting on warm, loving interactions with a romantic partner is mediated by secure attachment and self-control and that the impact of harsh parenting is mediated by anger management, insecure attachment, hostile attribution bias, and self-control, it is unlikely that these four variables completely explain the effect of parenting on relationships with romantic partners. Rather, we expect that both supportive and harsh parenting will continue to be associated with behavior displayed toward romantic partners after taking into account the posited mediating processes.

This expectation rests on the assumption that parents influence their offspring's relations with intimate partners, at least in part, through their interactions during childhood (Bryant & Conger, 2002; Conger et al., 2000, Simons et al 2012). Parental treatment of the child provides lessons regarding behavior that is suitable and appropriate between individuals who love one another (Straus & Gelles, 1990, Simons et al., 2012). Presumably, this modeling conveys behavioral scripts or social skills that are tacitly relied upon and enacted in interaction with romantic partners. To the extent that this is the case, one would expect a direct effect from supportive parenting to warm, loving behavior toward a romantic partner and a direct effect from harsh parenting to hostile, aggressive behavior toward a romantic partner.

Our model includes two control variables: family structure and gender. There is evidence that compared to never-divorced, two parent households, single and divorced parents tend to show more hostility and less warmth to their children (Simons & Associates, 1996). Further, parental relationship transitions that lead to changes in family structure are difficult for children. For example, subsequent divorces are more detrimental to offspring than the first divorce and parental remarriage is associated with outcomes as poor as, and in some cases worse than, youth living in single-parent households (Simons, Chen, Simons, Brody & Cutrona, 2006). Children of divorce experience various long-term negative consequences including less satisfying romantic relationships as adults, increased intimate partner violence, and a greater likelihood of their own marriage ending in divorce (Amato, 1999). The second control variable is gender. Parents tend to show more hostility to boys than to girls (Hagan & Kay, 1990) and men are more likely to display hostility and aggression than women (Simons, Simons & Wallace, 2004). Thus we include these two controls in order to eliminate the possibility that any relationships between our study constructs are distorted due to a common association with gender or family structure.

Method

Sample

The present study used data from the Family and Community Health Study (FACHS), a multisite investigation of neighborhood and family effects on the health and development of several hundred African American families living in Georgia and Iowa (Conger et al., 2000; Simons et al., 2002). Each family included a child who was in 5th grade at the time of recruitment. These families were recruited using block groups taken from the 1990 census data, which identified neighborhoods where the percentage of African American families was high enough for economically practical recruitment and in which at least 10% of families with children living below the poverty line. The response rate for the contacted families was 84%.

The FACHS sample includes 6 waves of data all of which were included in the current study. The respondents' average age was 10.5 years at Wave 1, 12.5 years at Wave 2, 15 years at Wave 3, 18 years at Wave 4, 20 years at Wave 5, and 23 years at Wave 6. At Wave 6, 699 of the 897 individuals who participated at wave 1 were still participating, a retention rate of 78%, and respondents resided in 31 states. There has been little evidence of selective attrition. For example, analyses indicated that non-participants at Wave 6 did not differ significantly from participants at Wave 1 with regard to community disadvantage, family income, and parents' education. Most (83.5%) of the primary caregivers at Wave 1 were the target child's biological mother, 5% were the child's father, 5.5% were the child's grandmother, and 5.6% were other relatives, stepparents, foster or adoptive parents.

This study focuses upon respondents who reported at Wave 6 that they were in an exclusive romantic relationship but were not married. This yielded a study sample of 345 (202 females, 143 males). Only a small number of individuals were married, too few to include as a separate group in the analysis, thus they were excluded in order to prevent marital status from operating as a potential confound. Analyses indicated that those with a committed

romantic partner did not significantly differ from those without one in terms of their education, family SES, community disadvantage, or antisocial behavior.

Procedures

Prior to data collection, approval was obtained from the Institutional Review Board at all universities involved. Field researchers, African American university students and community members, received a week of training in the administration of the self-report instruments and collected data from the respondents in their homes. Questionnaires were administered using computer assisted interviewing. Questions appeared on a laptop screen seen by the researcher and participant. Responses were entered on a keypad operated by the respondent and the answers did not appear on the shared screen.

Measures

Supportive parenting—Respondents were asked at Waves 1, 2, and 3 to report the frequency with which their primary caregiver engaged in various supportive parenting practices. This approach allows us to assess parenting when the respondents are age 10–15 and provides a more stable assessment of parental supportiveness across time than would be the case if the construct was assessed at only one point in time. Respondents were asked to indicate how often during the past year their primary caregiver engaged in activities such as acting supportive and loving, listening carefully to your point of view, showing affection toward you. The response format ranged from 1 (*always*) to 4 (*never*) and was reverse coded. This 9-item scale has been used in several papers and has strong reliability and validity (see Simons et al., 2006, 2007). The coefficient alphas ranged from .81 to .92 across the three waves. Scores were standardized and summed across waves to form a composite measure of persistent exposure to parental support.

Harsh parenting—At Waves 1, 2, and 3 respondents answered 14 questions regarding how often during the preceding year the primary caregiver engaged in various harsh parenting practices. They were asked to indicate how often their primary caregiver engaged in activities such as: push, grab, hit or shove you and insult or swear at you. The response format ranged from 1 (*always*) to 4 (*never*) and was reverse coded. This scale has been used in numerous papers and has strong reliability and validity (see Simons et al., 2006, 2007). Scores were standardized and then summed to form a composite measure of persistent exposure to harsh parenting. The coefficient alphas ranged from .71 to .82 across the three waves.

Anger management—At Wave 5, this construct was assessed using the Spielberg Trait Anger Scale (Spielberg, 1983). The seven items focus on how often the respondent demonstrates behavior such as a quick or fiery temper or flies off the handle when criticized. The response format ranged from 1 (*almost never*) to 4 (*almost always*). Responses were summed to form a scale of low anger management. The coefficient alpha for the scale was .88.

Attachment style—This construct was assessed at Waves 4 and 5 using the Experiences in Close Relationships-Revised (Fraley, Waller, & Brennan, 2000). Respondents were asked

to report the extent to which they agree (1 = *strongly disagree*; 7 = *strongly agree*) with items such as “I often worry that my partner doesn’t love me,” and “I find it difficult to trust others.” This scale has been used in many studies and has excellent reliability and validity (Feeney, 2008). The alphas were .80 at wave 4 and .77 at wave 5. Items were reverse coded and scores were summed to form a composite measure of secure attachment.

Hostile attribution bias—Using data from Wave 4, this construct was measured using a five item scale developed for the FACHS project (Simons et al., 2006; Simons et al., 2012). The items focus on the extent to which the respondent takes a cynical view of people’s motives (e.g. “When people are friendly they usually want something from you”) and believes that an aggressive stance is often necessary to achieve fair treatment (e.g. “People will take advantage of you if you let them”). The response format ranged from 1 (*strongly disagree*) to 4 (*strongly agree*) and 1 (*mostly true*) to 2 (*mostly false*), respectively. All responses were reverse coded. The coefficient alphas were .62 at wave 4 and .68 at wave 5. Scores were standardized and summed across waves to form a composite measure of hostile attribution bias.

Self-control—This construct was assessed at waves 4 and 5 when the respondents were, on average, 20 and 23 years of age. Evaluating this construct at two different points in time, both post-adolescence, allows for a more stable assessment. It was measured using the Good Self Control Scale (Kendall and Wilcox, 1979), a 7-item scale, used in other FACHS studies (e.g., Simons & Burt, 2011) and consists of questions such as “When you have to wait in line, you do it patiently” and “You usually think before you act.” The response format ranged from 1 (*not at all true*) to 3 (*very true*). The coefficient alpha was approximately .70 at each wave.

Warm/loving toward romantic partner—At Wave 6, respondents used the Relationship Warmth Scale (Cui, Lorenz, Conger, Melby & Bryant., 2005) to report their frequency of having engaged in warm and supportive behaviors toward their romantic partner during the previous month. This 9-item scale included items such as “act loving and affectionate toward your partner?” and “let your partner know that you appreciate his/her ideas or the things he/she does?” The response format ranged from 1 (*always*) to 4 (*never*) and was reverse coded. The coefficient alpha for the scale was .81.

Hostile/aggressive toward romantic partner—At Wave 6, respondents used the Relationship Hostility Scale (Cui et al., 2005) to report how often they had engaged in hostile, aggressive actions toward their romantic partner during the previous month. This 9-item scale consisted of items such as “insult or swear at your romantic partner?” and “shout or yell at your romantic partner?” The response format ranged from 1 (*always*) to 4 (*never*) and was reverse coded. Coefficient alpha for the scale was approximately .70.

Gender—This item was coded 0 (*females*) and 1 (*males*).

Family structure—Family structure was coded continuously married, step-parent, cohabiting, or single parent, in each data wave. Cumulative family instability was assessed

by summing whether family structure had changed at each wave. Higher scores indicated more instability in family structure.

Analytic Strategy

The hypothesized model was tested using structural equation modeling (SEM) in MPlus version 5.2 (Muthen & Muthen, 2008). This approach offers several advantages, including the ability to model multiple endogenous variables, to assess global fit, and to use the internal reliability of measures to adjust for attenuation due to measurement error. Most importantly, SEM provides tests for direct and indirect (mediating) effects, including specific paths (Bollen, 1989). Consistent with prior research on the effect of parenting on romantic relationships (Bryant & Conger, 2002), preliminary analysis indicated that there were no significant differences in the structural coefficients for men and women. Hence it was not necessary to run the model separately by gender and all subsequent analyses were performed using the full sample. The absence of significant interactions by gender does not, however, preclude the possibility of confounds due to some of the study constructs being correlated with gender. Therefore, gender continued to be included as a control.

Several goodness of fit indices were used to assess model fit: chi-square, comparative fit index (CFI), and root mean squared error of approximation (RMSEA). In order to test whether all data in our study are missing at random we employed Little's (1988) MCAR chi-square statistic in SPSS version 21. The result of this test was not significant (p value < 0.05), therefore we concluded that the data in our study are missing completely at random. Thus, missing data was handled with full information maximum likelihood (FIML) estimation which allows for unbiased estimates of parameters and standard errors when data are missing at random and are unrelated to the dependent variable (Schafer & Graham, 2002). The significance of indirect effects was tested using the Model Indirect command in Mplus, which relies on the delta method (Sobel, 1982). This method calculates the standard errors for the indirect effect of a predictor on an outcome through one or more intermediate variables.

Lastly, we employed the multiple group analysis option (e.g., model stacking procedure). First, models were estimated by constraining all paths to be equal and then compared to models in which paths were freed to vary. In order to determine which paths were significantly different (i.e., stronger), one path in the constrained model was relaxed and the change in chi square with one degree of freedom was tested for significance. The following groups were compared in the multi-group analysis procedure:

1. We tested the paths from harsh parenting to the hypothesized mediators compared to the paths from supportive parenting to the hypothesized mediators. Specifically, we tested the following:
 - a. the path from harsh parenting to hostile attribution bias was compared to the path from supportive parenting to hostile attribution bias.
 - b. the path from harsh parenting to self-control was compared to the path from supportive parenting to self-control.

- c. the path from harsh parenting to secure attachment was compared to the path from supportive parenting to secure attachment.
2. We tested the path from anger management to hostility toward romantic partners compared to the path from anger management to warmth toward romantic partners.
3. We the tested path from harsh parenting to hostility toward romantic partners compared to the path from supportive parenting to warmth toward romantic partners.

Results

Bivariate correlations, means, and standard deviations for all study variables are presented in Table 1. The pattern of correlations is mostly consistent with the study hypotheses.

Beginning with the parenting measures, both supportive and harsh parenting are correlated with warmth and hostility toward the romantic partner. Harsh parenting shows a significant association with all of the potential mediators, whereas secure attachment, self-control, and anger are significantly related to supportive parenting. Further, all of the proposed mediators are correlated with hostility toward the romantic partner, and all of them, with the exception of hostile attribution bias, are also associated with warmth toward the romantic partner. In addition, all of the potential mediators are significantly correlated with each other.

Given that MPlus allows imputation of missing data in SEM using the full maximum likelihood (FIML) method, the N for this modeling was slightly higher than that for the listwise correlations reported in Table 1. FIML is an unbiased approach that provides more power than the listwise procedure because all observed information is utilized in order to produce parameter estimations (Acock, 2005). It should be noted that we found no evidence that supportive and harsh parenting interacted to influence either the proposed mediators or outcomes. We began by running a fully recursive model controlling for gender and family instability. This model includes all possible pathways between the variables. Then, in an effort to obtain a more parsimonious model, we deleted all nonsignificant paths ($t < 1.5$) and ran the model again (e.g., reduced model). The difference in chi-square between the fully recursive and reduced models was not significant ($\chi^2 = 4.85, p = .68$) indicating that the reduced model provided a more parsimonious fit of the data. Figure 1 displays the results of the reduced model for the total sample.

With few exceptions, the pattern of findings shown in Figure 1 is consistent with expectations. Beginning with the effect of parenting on the four proposed mediators, there are significant paths from both supportive and harsh parenting to self-control. Beta coefficients are .20 and $-.23$, respectively. Similarly, both types of parenting are related to secure attachment. Beta (β) is .30 for supportive parenting and $-.18$ for harsh parenting. However, only harsh parenting is related to hostile attribution bias ($\beta = .25$). Harsh parenting is the only parenting variable associated with low anger management ($\beta = .19$). Paths from supportive parenting to hostile attribution bias and anger management are not significant. The potential mediators show many of the anticipated associations with behavior toward romantic partners. Both self-control and secure attachment demonstrate small, albeit significant, associations with warmth toward romantic partner ($\beta = .14$ and $.16$,

respectively). Low anger management shows a strong relation with hostility toward romantic partner whereas there is no significant association between anger management and warmth toward partner. In addition, Figure 1 shows that self-control, secure attachment, and hostile attribution bias are all related to low anger management. Thus these three constructs appear to have the expected indirect relation on hostility toward romantic partner through low anger management.

Next, we examined whether the paths from harsh parenting to the mediators were significantly stronger than paths from supportive parenting to the mediators. This was done by comparing the change in chi-square between models that constrained the paths from the two types of parenting to be the same to models that allowed the paths to differ. The difference in chi-square between the two models was significant ($\chi^2=9.09, p<.05$) for hostile attribution bias indicating that harsh parenting has a significantly stronger impact than supportive parenting on hostile attribution bias. The same procedure was used to evaluate whether harsh parenting had a stronger impact than supportive parenting on self-control and secure attachment. Again, the difference in chi square was significant for both tests ($\chi^2=13.91, p<.05$ and $\chi^2=16.99, p<.05$, respectively), indicating that the effect of harsh parenting is greater than that of supportive parenting for self-control but significantly lower than that of supportive parenting for secure attachment. Harsh parenting also had a significantly stronger impact than supportive parenting on anger. Consistent with expectations, results indicated that the path from anger management to hostility toward partner is significantly larger ($\chi^2=11.55, p<.05$) than the nonsignificant path (not depicted in the reduced model) from anger management to warmth toward romantic partner.

Finally, Figure 1 indicates that supportive parenting continues to be associated with warmth toward romantic partner ($\beta=.30$) after taking into account any indirect effects through the mediating variables and harsh parenting continues to be associated with hostility toward romantic partner ($\beta=.27$) after removing the portion of the association explained by the mediators. Results showed that the effect of supportive parenting on warmth to romantic partners had a significantly greater effect than harsh parenting had on hostility toward romantic partners ($\chi^2=11.52, p<.05$).

Table 2 presents the results of using the delta method to test the significance of the various indirect effects suggested in Figure 1. The table indicates that all of the indirect effects depicted in Figure 1 are significant ($p<.05$). Both supportive and harsh parenting influence warmth toward romantic partner through secure attachment and self-control. Further, supportive and harsh parenting affect low anger management through secure attachment and self-control, while harsh parenting impacts low anger management through hostile attribution bias. In turn, secure attachment, self-control, and hostile attribution bias influence hostility toward romantic partner through low anger management.

Summarizing, the tests of the indirect effects indicate that parental behavior has more of an influence on the hostility than the warmth that adult children display toward their romantic partners. Further, the findings suggest that harsh parenting is more consequential than supportive parenting in terms of predicting hostility toward the romantic partner. Finally, the indirect effect of harsh parenting supports a causal sequence where harsh parenting has both

a direct effect on anger management, as well as an indirect effect through its impact on hostile attribution bias and self-control, and low anger management, in turn, increases the probability of hostility toward the romantic partner. When the direct and indirect effects are summed, the model explains 12 percent of the variation in warm, loving behavior and 26 percent of the variation in hostile, aggressive behavior toward romantic partners.

Discussion

Previous research has established a link between the parenting practices to which children are exposed in their family of origin and their patterns of interaction with adult romantic partners (Bryant & Conger, 2002; Conger, et al., 2000). The present study extended this research in three respects. First, in contrast to earlier studies, the current study investigated the independent effects of supportive parenting compared to harsh parenting. We used the same approach for romantic relationships by assessing the precursors of warm/loving compared to hostile/aggressive interactions. This approach allowed us to trace pathways from positive and negative starting points in the family of origin to positive and negative outcomes in young adult relationships. Second, although researchers have speculated about the social and psychological factors that likely mediate the impact of parenting practices on behavior toward romantic partners, few studies have explicitly specified those factors and, to our knowledge, none have tested them empirically. The current study identified anger management, attachment style, hostile attribution bias, and self-control as important constructs for investigation. Third, unlike earlier studies, ours uses prospective, longitudinal data from an African American sample. Findings provided strong support for a developmental model where parenting shapes youths' interactional styles, schemas and traits, which in turn influence quality of interaction with romantic partners. Next, we summarize and interpret the findings.

First, the constructs that link parenting to warm interactions with romantic partners are somewhat different from those that link parenting to hostile interactions with romantic partners. As expected, we found that self-control, attachment style, and hostile attribution bias partially mediated the impact of parenting on hostility toward romantic partner. Furthermore, the effects of self-control, attachment style, and hostile attribution bias were mediated by anger management. This pattern of findings is consistent with the arguments of self-control theory (Burt et al., 2006), attachment theory (Simpson et al., 1996) and Dodge's theory of hostile attribution bias (Holzworth-Munroe, 2000). The results suggest that individuals who lack patience and distrust others are prone to angry outbursts that often involve aggression toward romantic partners.

Next, in addition to its indirect effect on anger management through self-control, attachment style, and hostile attribution bias, harsh parenting also showed a direct effect on this variable. This finding is consistent with the argument that harsh, explosive parenting teaches children that strong negative emotions often cannot or need not be controlled (Gottman et al., 1997). We investigated whether warm, nurturant parenting would directly influence anger management, but this was not the case. Rather, the impact of such parenting practices on anger management was limited to its indirect effect through attachment style and self-control. This finding is consistent with the predictions of attachment theory (Mickulincer &

Shaver, 2007; Thompson, Lewis, & Calkins, 2008) and self-control theory (Burt et al., 2006).

The findings regarding the determinants of warmth toward romantic partner were quite different than those for hostility toward romantic partner. Although attachment style and self-control partially mediated the effect of parenting on warmth toward romantic partner, this was not the case for hostile attribution bias. Further, as expected, the effects of attachment and self-control on warmth toward partner were not mediated by anger management. Indeed, anger management was not related to warmth toward partner. This suggests that individuals who have trouble controlling their anger can be quite warm as long as they are not frustrated or provoked (Ellis & Malamuth, 2000; Simons, et al., 2012). Secure attachment is characterized by trust and the capacity for intimacy, and self-control entails empathy and the ability to delay gratification. Our findings suggest that these competencies directly increase the probability of warm and loving behaviors toward a romantic partner.

Importantly, given the study's focus on mediation, we found that both supportive and harsh parenting continued to show direct effects on behavior toward romantic partners after taking into account the impact of the mediators. This finding is consistent with the argument that parents influence their offspring's relations with intimate partners, at least in part, through the behavior that they model in interaction with them during childhood (Bryant, 2006; Bryant & Conger, 2002; Conger et al., 2000). Children appear to acquire scripts or skills that are tacitly relied upon and enacted during interaction with romantic partners. Future research should endeavor to identify the nature of these scripts and skills.

The FACHS data used in the present study afforded several advantages such as longitudinal data, the separate assessment of supportive and harsh parenting, repeated measures of parenting behaviors during late childhood and early adolescence, assessment of the mediating variables during late adolescence and assessment of adult romantic relationships during early adulthood. Further, we used an African American sample to address the research questions while past research has focused primarily on European American samples. However, there were also limitations inherent in the data that need to be mentioned. First, by using an African Americans sample, the homogeneity may preclude generalization of the findings to other ethnic groups. Future research is needed in order to replicate our findings with more diverse samples.

Second, there are limitations associated with some of the measures. For example, our investigation of processes in the family of origin focused exclusively on parenting practices by the primary caregiver. Because less than half of the sample consisted of two-parent families, the study design did not include collecting data on parenting practices of the fathers or marital interactions between parents. However, some studies report that parenting practices serve as stronger predictors of adult intimate relationships than marital interactions (Bryant & Conger, 2002; Simons, Lin, & Gordon, 1998). Nevertheless, it would be worthwhile to investigate the extent to which the competencies that we found to mediate the impact of parenting practices also mediate any effect of marital interaction on an offspring's romantic relationships. Further, we did not have data on the duration of the romantic

relationships and our assessment of behavior toward romantic partners was obtained as the subjects were entering early adulthood. Therefore we have no way of knowing the extent to which interaction in their current dating relationships portend quality of the more long-term relationships that will likely be established in the coming years. There is evidence, however, that teen and early adult romantic relationships often serve as a training ground for later intimate relationships. Studies show that hostile and violent romantic relationships during late adolescence tend to predict similar relationship dynamics in adulthood (Conger et al., 2000). This suggests that those individuals in our sample who reported high hostility toward romantic partners in their current dating relationships are at risk for troubled, unstable adult romantic relationships. Future waves of data will allow us to examine these expectations. Finally, we relied on self-report data, which has the problem of method variance. However, this was diminished somewhat because the study variables were measured at different waves across several years.

Third, the respondents were 10 years of age when the study began. Presumably, parenting practices during early childhood have an impact on the development of the mediating variables in our study. It could be that the relationship between parenting practices and the mediators would be even stronger if we had measures of parenting at earlier ages. However, one's general approach to parenting is somewhat stable (Simons, Su & Simons, 2013) so our measures are likely a good indicator of the quality of parenting over time. Of course, due to the bidirectional nature of the parent-child relationship, in the same way that earlier parenting contributes to later parenting and child cognitions/behaviors, it is also the case that earlier child cognitions/behaviors contribute to later parenting. Thus, because family influence is a reciprocal process, it could be that anger management, attachment style, hostile attribution bias, and low self-control form to some degree prior to adolescence and therefore influence the behavior of parents toward children at age 10. Our study doesn't allow us to investigate this. However, theory (e.g. attachment) as well as past research (e.g. see Dodge's work on hostile attribution bias) suggest that parenting is the more fundamental cause operating in this reciprocal relationship. Thus, it is likely the case that early parenting gives rise to the development of the mediating variables we address in the current study. Future research would benefit from examining these issues.

Despite these limitations, the current study might be seen as offering strong support for a developmental model of romantic relationships and providing important information regarding the avenues whereby experiences in the family of origin affect the quality of an individual's adult intimate relationships. Overall, our findings indicate that the type of parenting received as a child influences adult romantic relationships through its impact on various competencies. These results point to the importance of future research utilizing a developmental perspective where childhood and adolescent experiences, especially in the family of origin, give rise to attitudes, traits and schemas that influence the way an individual relates to romantic partners.

Our findings suggest a number of implications regarding prevention and intervention. For example, parenting education classes could benefit by emphasizing the importance of supportive parent-child interactions for the long-term adjustment of their offspring including their future romantic relationships. Discussion of the importance of the family of origin in

the development of emotional states, schemas, and interactional styles that may be detrimental to the quality of one's intimate relationship may enhance the effectiveness of relationship or marriage education programs. Further, clinical intervention efforts with hostile romantic partners might be improved by focusing upon the development of anger management, as well as upon the underlying issues of distrust and self-control that give rise to this emotional volatility. Additionally, efforts to enhance trust and self-control combined with attempts to reduce anger and hostility in a clinical setting can lead to enhanced warmth and support exchanged by the romantic partners. Verbal expressions of a positive nature are associated with an increase in relationship satisfaction (Cohan & Bradbury, 1997) while negative premarital communication is associated with later marital distress and an increased risk of divorce (Clements, Stanley & Markman, 2004). The benefits of such efforts may go beyond individual well-being and relationship satisfaction. For example, there is evidence that reducing hostility and increasing relationship quality is also associated with a reduction in health risks (Guyll, Cutrona, Burzette, & Russell, 2010). Thus, efforts to reduce relationship discord and increase relationship quality will benefit adult intimate partners, their children, and society.

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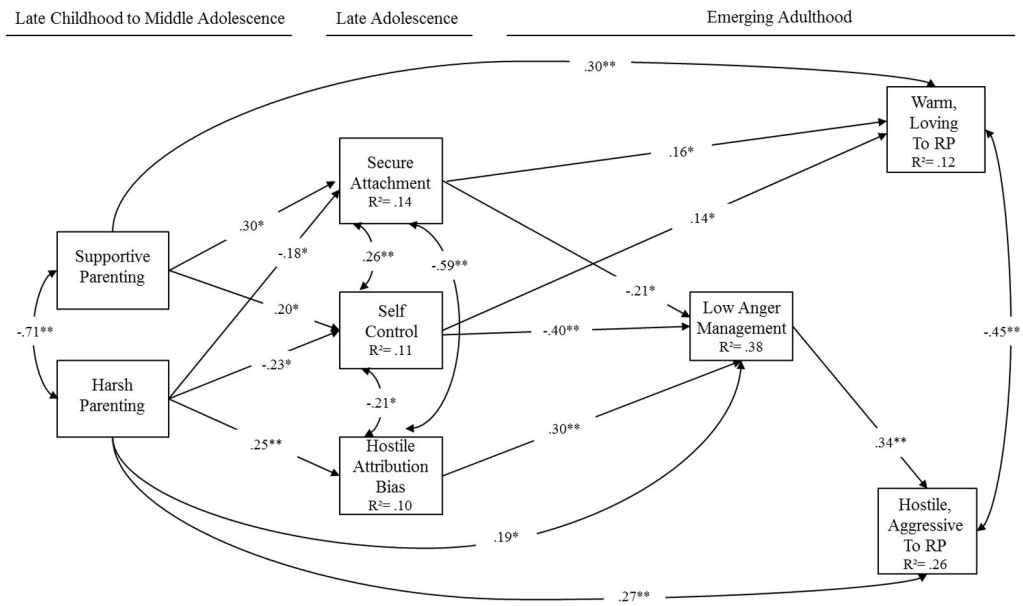


Figure 1.

Reduced Structural Equation Model

Note: $\chi^2 = 12.61$, $df = 17$, $p = .76$, RMSEA=.00, SRMR=.02 and CFI=1.00. Presented values are standardized parameter estimates.

** $p < .01$, * $p < .05$ (one-tailed tests), $n = 345$ (Handling missing data through FIML).

Table 1

Correlation Matrix, Means, and Standard Deviations among Study Variables

	1	2	3	4	5	6	7	8	9	10
1. Supportive Parenting	–									
2. Harsh Parenting	-.48**	–								
3. Hostile Attribution Bias	-.09 [†]	.17**	–							
4. Secure Attachment	.24**	-.19**	-.41**	–						
5. Self-Control	.16**	-.20**	-.18**	.21**	–					
6. Low Anger Management	-.17**	.23**	.34**	-.25**	-.38**	–				
7. Warm, Loving to RP	.26**	-.11*	-.04	.09*	.11*	-.11*	–			
8. Hostile, Aggressive to RP	-.26**	.28**	.21**	-.18**	-.27**	.41**	-.33**	–		
9. Target Gender	.15**	-.09	.01	.01	-.02	-.03	-.07	-.09 [†]	–	
10. Family Instability	.06	.01	.12*	.04	.01	-.04	.12*	.05	.01	–
<hr/>										
Raw Scores										
Mean	89.78	67.91	3.71	63.24	26.62	12.38	9.94	4.44	.41	.62
SD	13.11	11.42	2.23	12.46	3.13	4.44	2.05	1.29	.49	.83
<hr/>										
Actual Scores*										
Mean	-.01	.05	-.02	.02	-.01					
SD	2.33	2.30	1.73	1.66	1.66					

Note:

** p<.01;

* p<.05;

[†] p<.10 (two-tailed tests);

Romantic partner defined as RP (listwise n= 305); Actual scores are from the summed Z scores.

Table 2

Significance of the Indirect Effects

Predictors (W 1-3)	Mediators (W 4-5)	Outcomes (W 6)		
		Warm, Loving to Romantic Partner	Hostile, Aggressive to Romantic Partner	Low Anger Management
Supportive Parenting	Secure Attachment	.01*		
Supportive Parenting	Self-Control	.01*		
Harsh Parenting	Secure Attachment	-.01*		
Harsh Parenting	Self-Control	-.02*		
Hostile Attribution Bias	Low Anger Management		.06**	
Secure Attachment	Low Anger Management		-.02*	
Self-Control	Low Anger Management		-.06**	
Supportive Parenting	Secure Attachment			-.02*
Supportive Parenting	Self-Control			-.02*
Harsh Parenting	Hostile Attribution Bias			.05**
Harsh Parenting	Secure Attachment			.01*
Harsh Parenting	Self-Control			.05**

Note:

** p<.01;

* p<.05 (two-tailed tests), n = 345.

All values are standardized parameter estimates.