

**The Impact of Relational Aggression and Friendship Quality on the Pathway from
Parental Psychological Control to Child Internalizing Symptomology**

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Abstract

The current project examined two competing models investigating the role of child relational aggression and friendship quality in the association between parental psychological control and child internalizing symptomology. An at-risk sample of predominantly minority children ($n = 132$, 55% male, 86% minority) ranging from 5 to 14 years of age ($M = 8.83$, $SD = 2.43$), recruited from a Knoxville, Tennessee area Boys and Girls Club was used to examine the proposed construct relations. Interaction terms between study variables and gender and age were also examined. All structural equation models yielded a poor fit to the data. Multiple regression analyses were then employed in post hoc analyses to examine moderated and mediated pathways in a step back approach. Results indicated that relational aggression partially mediated the association between parental psychological control and internalizing symptoms. Furthermore, friendship quality was found to strengthen the associations between paternal psychological control and child internalizing symptoms and between paternal psychological control and relational aggression. Additional analyses were conducted to determine the moderating effect of age and gender. For older children, friendship quality exacerbated the association between maternal psychological control and relational aggression, but for younger children, friendship quality demonstrated a buffering effect in the association between maternal psychological control and relational aggression. Limitations along with future directions are discussed.

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Parental psychological control is a persistently negative dimension of parenting involving the attempted management and manipulation of the child's emotional expression and independence (Barber, 1996). Previous literature suggests that parental psychological control can contribute to the development of internalizing symptoms, or anxious and depressive symptomology (Barber, 1996; Barber & Harmon, 2002; Soenens, Luyckx, Vansteenkiste, Duriez, & Goossens, 2008; Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005). Furthermore, parental psychological control has been theoretically and empirically linked to child relational aggression (Rogers, Buchanan, & Winchel, 2003; Albrecht, Galambos, & Jansson, 2007). Relational aggression is a distinct subtype of aggressive behavior in which the child intends to or threatens to harm others through the control and manipulation of social relationships (Crick & Grotpeter, 1995). Therefore, both parental psychological control and child relational aggression involve controlling and manipulative interaction styles (Albrecht, et al., 2007; Nelson, Hart, Yang, Olsen, & Jin, 2006; Yu & Gamble, 2008). Moreover, relational aggression has been associated with poor youth adjustment and problematic peer relationships (Crick & Grotpeter, 1995; Crick, Ostrov, & Werner, 2006; Putallaz et al., 2007), and internalizing symptomology (Crick & Grotpeter, 1995; Crick, et al., 2006; Prinstein, Boergers, & Vernberg, 2001). Based on this body of evidence, it was anticipated that a complex mediated chain may partially explain the association between parental psychological control and internalizing symptomology. In other words, parental psychological control may be associated with child relational aggression which, in turn may be associated with poor friendship quality, ultimately resulting in internalizing symptoms. There is also literature to suggest, however, that high friendship quality (i.e., friendships high on positive friendship features, such as intimacy

and companionship, and low on negative features, such as conflict) may be able to buffer the negative impact of poor parenting on child maladjustment (Gauze, Bukowski, Aquan-Assee, & Sippola, 1996; Gaertner, Fite, & Colder, 2010; Lansford, Criss, Pettit, Dodge, & Bates, 2003; Schwartz, McFadyen-Ketchum, Dodge, Pettit, & Bates, 1998). In sum, child relational aggression may mediate the link between psychological control and child internalizing symptoms, such that psychological control leads to relational aggression which in turn leads to internalizing symptoms. While friendship quality may mediate this association, it may also moderate or buffer the proposed paths from psychological control to internalizing symptoms. Therefore, the role of friendship quality in this mediated chain is not yet clear.

More research is needed to better understand the pathways to internalizing symptomology, as this information could aid in a better understanding of the potential mechanisms of risk, specific targets of prevention, and intervention efforts. Moreover, it is important to examine these pathways in a socioeconomically disadvantaged and racially diverse sample of American youth. For example, there is evidence to suggest that psychological control is more prominent in African American and lower socioeconomic status populations (Barber, 1996; Barber, Bean, & Erickson, 2002). Furthermore, socioeconomic disadvantage is associated with increased risk for mental disorders (Fryers, Melzer, Jenkins, 2003; Johnson, Cohen, Dohrenwend, Link, & Brook, 1999), more compulsory psychiatric admissions, longer than average hospital stays, and less favorable treatment outcomes (Lorant, Kampfl, Seghers, Deliege, Closon, & Ansseau, 2003). Thus examination of factors in the pathways from parental psychological control to child internalizing symptomology is particularly suited for the included sample of “at-risk,” and predominantly minority youth.

Additional points of consideration include age and gender. As children age, peers increase in developmental salience, and thus friendship quality may have different implications depending on developmental timing (Buhrmester, 1990, 1998; Buhrmester & Furman, 1987; Furman & Buhrmester, 1985, 1992). Although it would be ideal to examine these associations across developmental stages (early, middle, late childhood, and adolescence); age was examined as a continuous moderator for the purpose of the current research due to a limited sample size, resulting in a lack of necessary statistical power. Furthermore, both relational aggression and internalizing symptomology are more common amongst females than males (Crick & Grotpeter, 1995; Lewinsohn, Clarke, Seeley, & Rohde, 1994; Murray-Close & Crick, 2006; Murray-Close, Ostrov, & Crick, 2007). Therefore, age and gender were examined as potential contributing factors (or moderators) in the investigation of the relations between internalizing symptomology, parental psychological control, relational aggression, and friendship quality.

Child Internalizing Symptomology

Defined broadly, child internalizing symptomology refers to the highly comorbid experience of anxious and depressive symptoms (Wadsworth, Hudziak, Heath, & Achenbach, 2001). More specifically, internalizing symptomology can include a range of adjustment difficulties, including social problems (e.g., peer rejection and dislike), somatic complaints (e.g., headaches, nausea, dizziness), withdrawal (e.g., demonstrates a preference for being alone), and depressive symptoms (e.g., crying, fatigue, excess guilt) (Achenbach & Rescorla, 2001). The empirical investigation of risk factors associated with the etiology and development of early internalizing symptomology is key due to the stability of internalizing difficulties through childhood, adolescence and adulthood (Albano, Chorpita, & Barlow, 2003; Bayer, Sanson, &

Hemphill, 2006; Hammen & Rudolph, 2003). Additionally, internalizing difficulties can be extremely problematic for the children and adolescents who experience them. For example, internalizing symptomology is associated with a number of adjustment difficulties including poor social and academic functioning (Laukkanen, Shemeikka, Notkola, Koivumaa-Honkanen, & Nissinen, 2002), suicidal ideation, and suicide attempts (Ialongo et al., 2004). In addition, internalizing symptomology is associated with other symptom presentations, including both relational and physical forms of aggressive behavior (Murray-Close, et al., 2007; Yu & Gamble, 2008). More specifically, there is research to suggest that relational aggression may contribute to the development of internalizing symptoms (Crick, et al., 2006; Murray-Close & Crick, 2006; Prinstein, et al., 2001).

Consequently, a number of environmental factors have been considered in the empirical investigation of the development of internalizing symptomology. More specifically, factors associated with both parenting and peer relationships have been indicated as important targets of investigation (Bayer, et al., 2006; Brody, Kim, Murry, & Brown, 2005; Hussong et al., 2008; Hussong, Flora, Curran, Chassin, & Zucker, 2008; Lansford et al., 2006; Reitz, Dekovic, Meijer, & Engels, 2006; Rose, Carlson, & Waller, 2007; Rubin & Mills, 1991; Vandewater & Lansford, 2005). Thus, the primary aim of the current research was to examine the influence of parenting, specifically parental psychological control, and peer relationships, particularly friendship quality, on youth internalizing symptomology.

The Theory of Social Provisions

According to the theory of social provisions, children seek support from different types of social relationships, including both parent and peer relationships (Furman & Buhrmester, 1985).

Across child development, friendships, in addition to the parent child relationship, become increasingly important sources of socialization and social support (Buhrmester, 1990; Furman & Buhrmester, 1985, 1992). For example, Buhrmester and Furman (1987) found that as children increase in age, same sex peers increase in importance as providers of companionship, and parents decrease in importance as providers of intimacy. Moreover, the ability to participate in close social relationships increases with age (Buhrmester, 1990). Additionally, cross sectional research indicates developmental differences in the importance of various social relationships (Furman & Buhrmester, 1992). In fourth grade, parents were found to be the most important source of social support, while in seventh and tenth grade, same sex peers were rated as the most important source of social support. In sum, these findings suggest that as children are better able to participate in close interpersonal relationships, they begin to pursue closer more intimate friendship relationships.

Parents and friends are important sources of social influence and providers of social support across child development (Furman & Buhrmester, 1985). Consequently, it is expected that when one provisional source of social support is poor or lacking (e.g., problematic parenting), other sources become increasingly important (e.g., high quality friendship relationships). Therefore, it may be important to consider factors associated with both parenting and friendship relationships in the investigation of the etiology and development of internalizing symptoms in childhood.

Parental Psychological Control

One aspect of parenting that has been associated with child internalizing symptomology is the pervasively negative dimension of parenting referred to as psychological control (Barber,

1996; Olsen et al., 2002; Soenens, et al., 2008). Parental psychological control is a relationally manipulative and intrusive parenting style, in which the parent impedes upon the child's sense of emotional autonomy by encroaching on the child's thoughts, feelings, and sense of attachment to the parent (Barber, Bean, & Erickson, 2002; Schaefer, 1965). For example, a psychologically controlling parent may refuse to speak to their child for a period of time if the child does not comply with the parent's wishes. Consequently, and consistent with social learning theory, psychologically controlling parenting may encourage negative emotions and undermine the child's sense independence and autonomy, limiting the child's sense of self-efficacy. This, in turn, may foster dependence on the parent, and offer little opportunity for the child to develop effective coping skills, ultimately resulting in the development of internalizing difficulties, including both anxious and depressive symptomology (Albrecht, et al., 2007; Bayer, et al., 2006; Fordham & Stevenson-Hinde, 1999; Galambos, Barker, & Almeida, 2003; Hussong, et al., 2008; Rubin et al., 2004; Rubin & Mills, 1991).

Parental psychological control has been established as a unique predictor of youth depressive symptomology, both cross-sectionally and longitudinally (Barber, 1996). Additionally, Soenens, et al. (2008) has found evidence in support of a reciprocal relation between parental psychological control and child depressive symptomology in a sample of Belgian youth. Specifically, over time, parental psychological control predicted increases in youth depressive symptomology, and youth depressive symptomology in turn predicted increases in parental psychological control. Moreover, parental psychological control has been found to be indirectly associated with youth maladaptive perfectionism and child maladjustment (Soenens, Vansteenkiste, et al., 2005).

Although there is evidence to suggest a link between parental psychological control and adjustment problems in childhood and adolescence, there is not uniform support for the direction of this association. More specifically, three models regarding the nature of this association have been proposed (Soenens, et al., 2008). The psychological control effects model proposes that parental psychological control uniquely contributes to or exacerbates child maladjustment. The adolescent effects model, conversely, proposes that aspects of the child's behavior may elicit parental psychological control. For example, Albrecht, Galambos, and Jansson (2007) found evidence in support of child but not parent effects on the relation between parental psychological control and adolescent internalizing symptomology. Additionally, longitudinal analyses have indicated that child reported baseline internalizing symptoms were associated with increases in child perceived parental psychological control over time (Rogers, Buchanan, & Winchel, 2003). Finally, the reciprocal effects model suggests that parenting behavior and child behavior reciprocally influence one another, a model garnering support in the aforementioned investigation conducted by Soenens, et al. (2008). The current study, however, specifically focuses on parenting to internalizing symptoms, thus investigating the psychological control effects model.

Moreover, the link between parental psychological control and internalizing symptomology has been established across childhood and adolescence and in cross cultural samples as well. For example, Olsen, et al. (2002) found evidence to suggest that parental psychological control was predictive of child internalizing symptoms in samples of American, Chinese, and Russian preschool children. Maternal psychological control was associated with child state anxiety in a sample of children ranging from 7 to 13 years of age (de Wilde & Rapee,

2008). Similar results have also been indicated in samples of Belgian (Soenens et al., 2005; Soenens, et al., 2008) and American (Barber, 1996; Barber, Olsen, & Shagle, 1994; Barber, Stolz, & Olsen, 2005) adolescents as well. In a longitudinal, cross cultural examination of specific links between three dimensions of parenting, psychological control, behavioral control, parental support, and adolescent adjustment outcomes, Barber, Stoltz, and Olsen (2005) found that child perceived parental psychological control was consistently associated with depression in adolescents across time, age, and eleven various cultural groups. In other words, these associations appear to be quite common and consistent in child and adolescent populations. Although the majority of the psychological control research has focused on Caucasian and middle class youth, parental psychological control has been established in African American and lower socioeconomic status populations (Barber, 1996; Barber, Bean, & Erickson, 2002), as well.

Finally, research regarding the differential effects of maternal and paternal psychological control on male and female internalizing symptoms has indicated inconsistent results (Conger, Conger, & Scaramella, 1997; Olsen, et al., 2002; Rogers, et al., 2003; Soenens, Vansteenkiste, Goossens, Duriez, & Niemiec, 2008). For example, Soensens et al. (2008) found that paternal psychological control was associated with increases in both male and female adolescent depressive symptoms. Conger, Conger, and Scaramella (1997) found evidence to suggest paternal psychological control was associated with increases in male, but not female, internalizing symptoms. Additionally, decline in maternal psychological control over time was associated with decreased risk for female internalizing symptoms. Moreover, Stolz, Barber, and Olsen (2005) found that positive mothering, explained as low levels of psychological control,

was associated with lower levels of male child depression and that positive fathering was associated with lower levels of female child depression.

In summary, psychological control has been linked to youth internalizing symptomology (Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998; Nelson, et al., 2006; Olsen, et al., 2002; Rogers, et al., 2003). In addition to an association with internalizing symptomology, it should also be noted that evidence suggests an association between parental psychological control and externalizing behaviors as well. In particular, parental psychological control has been associated with relational forms of youth aggressive behavior (Albrecht, et al., 2007; Hart, et al., 1998; Nelson, et al., 2006; Reed, Goldstein, Morris, & Keyes, 2008; Soenens, et al., 2008; Yu & Gamble, 2008).

Relational Aggression

Aggressive behavior throughout child development is associated with a host of concurrent and prospective maladaptive adjustment outcomes (Coie & Dodge, 1998). Historically, however, empirical investigations of childhood aggression and its associated adjustment outcomes have been limited by their focus on physical and verbal forms, only. Recent literature regarding aggression has turned its focus to various forms of aggression which are believed to more fully capture the range and intentionality of aggressive behaviors. One such form receiving attention in recent literature is relational aggression, or behavior intended to harm others through threatened or actual damage to social relationships (Crick & Grotpeter, 1995). For example, a relationally aggressive child may spread rumors about another child or encourage peers to exclude that child from the group. Although relational aggression has been identified as more typical and normative for female aggressors than physical forms of aggression (Crick &

Grotpeter, 1996; Grotpeter & Crick, 1996), relational aggression has been identified as a distinct and problematic form of behavior which impacts both male and female psychosocial adjustment across child development (Crick & Grotpeter, 1995; Crick & Bigbee, 1998; Crick & Werner, 1998; Prinstein, et al., 2001).

Crick and Grotpeter (1995) found that relationally aggressive early adolescents were more likely to be rejected by peers, experience higher levels of depression, and to report experiencing more peer rejection and peer isolation than their nonaggressive peers. Additionally, Prinstein et al. (2001) indicated that relational aggression uniquely predicts externalizing behavior for girls, even after controlling for overt aggression. Moreover, results indicated relationally aggressive boys reported increased loneliness when compared to their overtly aggressive and nonaggressive peers. Additionally, prospective associations between relational aggression and internalizing symptomology have been detected. For example, children who engaged in both relational and overt forms of aggression were more likely to experience internalizing difficulties over the period of one year (Crick, et al., 2006). Furthermore, relational aggression made unique contributions to change in internalizing difficulties after controlling for overt aggression, such that relationally aggressive children were more likely to be anxious, withdrawn, and depressed over the period of one year than their overtly aggressive or nonaggressive peers (Crick, et al., 2006). In sum, there is substantial evidence to suggest that relational aggression is a distinct and problematic form of aggressive behavior.

Given the concurrent and subsequently damaging effects associated with engaging in relational aggression, in combination with the suggested stability of relational aggression over time (Crick, et al., 2006), it is important to further investigate both the antecedents and

psychosocial correlates of engaging in this form of aggressive behavior. More specifically, recent literature has highlighted an association between parental psychological control and child relational aggression (Olsen, et al., 2002; Yu & Gamble, 2008). Similar to parental psychological control, relational aggression involves engaging in manipulative interpersonal interactions with the intention to harm or manipulate the other (Crick & Grotpeter, 1995; Grotpeter & Crick, 1996). Therefore, consistent with a social learning perspective, children with psychologically controlling parents may learn intrusive and manipulative interactions and subsequently engage in similar interactions with peers. Moreover, the relation between parental psychological control and relational aggression has been established in children as young as preschool age and throughout adolescence (Olsen, et al., 2002; Rogers, Buchanan, & Winchel, 2003), suggesting these associations have implications for adjustment across child development.

For example, Nelson, et al. (2006) found evidence to suggest combined maternal and paternal psychological control was predictive of daughter but not son relational aggression. Consistently, Casas, et al. (2006) found evidence that young girls' relational aggression was related to dimensions of maternal psychological control, including erratic emotions, love withdrawal, guilt induction, invalidating feelings, and directiveness. Moreover, female relational aggression was associated with dimensions of paternal psychological control, including erratic emotional behavior, invalidating feelings, and paternal directiveness. Nelson, et al., (2006) examined the relation between parental psychological control and relational aggression in a sample of Chinese preschoolers, and found that combined maternal and paternal psychological control was associated with relational aggression in girls. Additionally, high levels of paternal psychological control was associated with relational aggression in girls, whereas the differential

effects of maternal and paternal psychological control were marginally predictive of relational aggression in boys. Paternal psychological control has also been established as a predictor of daughter psychological control in a sample of American third graders (Nelson & Crick, 2002).

Relational aggression, like parental psychological control, is associated with internalizing symptomology. For example, Crick and Grotpeter (1995) found that relationally aggressive early adolescents were more likely to experience higher levels of depression. Prinstein et al. (2001) found that relationally aggressive boys reported increased experience of loneliness when compared to their overtly aggressive and nonaggressive peers. Furthermore, relational aggression was found to make unique contributions to increases in internalizing difficulties over the period of one year (Crick, et al., 2006). The literature suggests that parenting factors, such as parental psychological control, can model and facilitate the development of relational aggression. Therefore, relational aggression may partially account for the established link between parental psychological control and internalizing symptoms. Consistent with the theory of social provisions (Furman & Buhrmester, 1985), however, it may be important to consider other sources of socialization and support, such as the qualitative aspects of peer relationships, in the development of internalizing symptomology.

Friendship Quality

Research on child and adolescent friendships indicates an association between social development and the quality of friendships experienced (e.g., Berndt, 1998; Hartup, 1995). Friendship quality is defined in terms of a continuum of positive and negative features, where friendships high on positive features (e.g., intimacy, companionship, help and guidance) and low on negative features (e.g., competition, hostility) are high in quality, and friendships low on

positive features and high on negative features are low in quality (Berndt, 2002). High friendship quality has been linked to a number of both concurrent and prospective psychosocial outcomes across child development, including higher self esteem (Keefe & Berndt, 1996), popularity, social competence, achievement motivation and school involvement (Hartup, 1995). Additionally, high quality friendships are associated with fewer externalizing behavior problems and bullying (Bollmer, Milich, Harris, & Maras, 2005), and are associated with decreased risk for internalizing difficulties such as anxiety and loneliness (Fordham & Stevenson-Hinde, 1999; Parker & Asher, 1993).

More importantly, high friendship quality has been found to buffer or moderate the relation between youth risk factors, such as poor parent-child interactions, and maladjustment. For example, Criss et al. (2002) found that friendship weakened the association between harsh discipline and externalizing behavior problems. Furthermore, Lansford et al. (2003) found that friendship quality moderated the relation between negative parenting (i.e., unilateral parenting, low supervision and awareness, and harsh discipline) and externalizing behavior problems. Additionally, friendship quality has been found to ameliorate the relation between externalizing behavior and bullying (Bollmer, et al., 2005). There is also evidence to suggest that friendship quality attenuated the relation between poor positive parenting and internalizing symptoms over the period of one year (Gaertner, Fite, & Colder, 2011). More specifically, when youth reported high levels of friendship quality, poor positive parenting was unrelated to change in internalizing symptoms. At low levels of friendship quality, however, low levels of positive parenting were associated with increases in internalizing symptoms. Moreover, friendship intimacy, a dimension of friendship quality, has been found to weaken the association between best friend

delinquency and externalizing behavior problems over the period of one year (Gaertner, et al., 2011). Therefore, consistent with the theory of social provisions, youth who experience poor or unsupportive parenting may turn to their peer relationships for support. If friendships are high in quality, the likelihood of experiencing internalizing symptoms may be reduced. If friendships are poor in quality, however, the risk for maladjustment may be increased. Therefore, friendship quality may be an important factor to consider as a factor in the pathways from parental psychological control to internalizing symptomology through relational aggression.

Only one study to date has extended the investigation of parental psychological control and relational aggression to include an examination of friendship quality. Soenens, Vansteenkiste, Goossens Duriez, and Niemiec (2008) examined relational aggression as an outcome in the relation between parental psychological control and friendship quality and loneliness in a sample of Belgian adolescents. Results supported a path model in which parental psychological control positively predicted relational aggression, which in turn negatively predicted friendship quality (for maternal psychological control only) and positively predicted loneliness. Additionally, parental psychological control indirectly predicted loneliness, and maternal psychological control indirectly predicted friendship quality. This study indicates an association between parental psychological control, friendship quality, and relational aggression; however, no research to date has specifically examined friendship quality as a mediator in the relation between parental psychological control and relational aggression. This is a notable omission in the literature, as relational aggression, by definition, involves intended harm via social relationships. Consequently, interpersonal relationships, and the nature of these

relationships may be important points of consideration in the examination of child relational aggression.

To date, the majority of empirical investigations of the social relationships of relationally aggressive youth have focused on social status. For example, Werner and Crick (2004), found that relationally aggressive children were more disliked by their peers over time and that higher levels of peer rejection were associated with increases in female relational aggression over the period of one year. Similarly, Crick and Grotpeter (1996) found evidence to suggest that relational aggression was associated with future peer rejection and negatively related to future peer acceptance for girls. There is also evidence to suggest an opposite effect for older adolescents; relational aggression was positively associated to popularity with peers (Rose, Swenson, & Waller, 2004). In a similar vein of research, an effort has been made to investigate the dyadic social relationships of relationally aggressive youth. Specifically, there is evidence to suggest that relationally aggressive children tend to form friendship associations with similarly relationally aggressive peers, and that these selection effects remain stable over the period of one year (Werner & Crick, 2004). Consequently, it is important to extend these preliminary investigations by further examining relational aggression specifically within the context of friendship relationships. Thus, more research is needed to truly understand the link between relational aggression and friendship quality, and their role in the link between psychological control and internalizing symptoms.

The Current Study

Accordingly, the primary aim of the current project was to investigate the pathway from parental psychological control and internalizing symptoms in a sample of school aged children.

It was hypothesized that while there may be a direct link between parental psychological control and internalizing symptomology, psychological control may be associated with increases in child relational aggression, which in turn, may be associated with poor friendship quality, ultimately leading to internalizing symptoms (See Figure 1a). It was expected that this three-chain path may partially account for the association between parental psychological control and child internalizing symptomology. In contrast, previous literature suggests that high quality friendships can buffer the deleterious effects of poor parenting on child and adolescent maladjustment. Therefore, it is also plausible that participation in high quality friendship relationships may serve a protective function in the proposed model, such that high friendship quality may weaken the relation between parental psychological control and child internalizing symptoms as well as the relation between psychological control and child relational aggression (See Figure 1b). Additionally, high quality friendships may attenuate the association between child relational aggression and child internalizing symptoms. Both competing models were examined. Although research indicates that relational aggression is a distinct form of aggressive behavior, it is also highly comorbid with physical forms of aggression as well (e.g., Crick & Grotpeter, 1995). Thus, consistent with recent investigations of relational aggression, physical aggression was controlled for in the current study.

A secondary aim of the current research was to garner a better understanding of age in the proposed associations. For example, friendships increase in developmental salience as children age (Buhrmester & Furman, 1987; Furman & Buhrmester, 1985, 1992). Therefore, friendship quality may have different implications for adjustment outcomes depending on age, such that as children age, friendship quality may increase in importance. Similarly, although parental

psychological control has been indicated as a negative dimension of parenting associated with both relational aggression and internalizing symptomology across child development (Barber, et al., 1994; Galambos, et al., 2003; Keiley, Lofthouse, Bates, Dodge, & Pettit, 2003; Nelson, et al., 2006; Olsen, et al., 2002); this construct may have different implications for relational aggression and internalizing symptomology, depending on age. For example, a child in elementary school may consider some parenting behaviors to be normative (e.g., entering the child's room without knocking), while an older middle school aged child may consider this type of behavior as intrusive and controlling. Therefore, as a preliminary exploration of these constructs, age was examined as a moderator of the proposed pathways.

A third aim of the proposed research was to investigate gender as a factor in both models. Although psychological control has been linked to poor adjustment in both males and females, there is evidence to suggest that females are more likely to develop internalizing symptomology (e.g., Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). Moreover, relational aggression may be more typical of female than male aggressors (Crick & Grotpeter, 1995, 1996; Grotpeter & Crick, 1996; Crick & Werner; 1998). Therefore, the proposed pathways may be more relevant for females, and thus gender is an important factor of consideration, and was likewise examined as a moderator in the proposed pathways.

Method

Participants

A sample of 132 children ranging from 5 to 14 years of age who attend a Boys and Girls Club of the Tennessee Valley participated in the study. Boys and Girls Clubs provide child care and daycare services to a socioeconomically disadvantaged population of children and

adolescents. The non-profit organization is open to at-risk youth. According to statistics generated by the Boys and Girls Club of the Tennessee Valley, the majority of attendees lives in a single parent or foster parent home, and comes from a household that averages approximately \$12,000 per year in annual income (Boys and Girls Clubs of the Tennessee Valley, “Fast Facts PDF,” n.d.). Within the current sample of children, 93% received a fee reduction for their attendance and 58% received a child care certificate. Child care certificates are part of a grant funded program by the state of Tennessee, which offers subsidized child care to low income and at-risk children (Tennessee Government Department of Human Services, “Child-care Certificate Program,” n.d.). Based on these criteria, the included sample was considered to be “at-risk” for problematic psychosocial adjustment due to exposure to a number of economic and environmental stressors.

Although director and child reports were collected on 132 children, not all children participating by parental consent were in attendance during the week of data collection. Therefore, 117 child respondents were included in the current study. The total sample consists of 132 children (73 male), ranging from 5 to 14 years of age ($M = 8.83$ years, $SD = 2.43$), who attended a Boys and Girls Club of the Tennessee Valley during a summer term. All children in attendance during the week of recruitment were invited to participate. The majority of children were African American (73%), while 14% were Caucasian, 1% were Hispanic, and 12% were biracial or of “other” racial/ethnic group. A minority versus non-minority status dichotomous variable was created and used for analyses. Minority status was defined by all non-Caucasian racial and ethnic groups. According to this division, 14% of children met the criteria for non-minority status while 86% of children met the criteria for minority status.

Procedure

Written parental consent for child participation and staff report of child behavior was obtained during hours of drop-off and pick-up throughout the first week of summer session. Parents were notified upon consent that they were free to withdraw consent for child participation at any time. Parental consent for child study participation included consent for their children to respond to questions regarding their feelings, behaviors, their relationships with their parents and peers, and the behavior of their peers. Additionally, parental consent included permission for a club staff member to respond to questions regarding their child's feelings and behaviors and the behavior of their friends. Furthermore, permission was obtained from the parent for the director of the Boys & Girls Club to report on the child's club membership (i.e., duration, attendance, disciplinary record, general academic standing and demographic information). Although only one time point was of consideration for the purpose of the current research, parental consent included permission for children and staff to participate in a second wave of identical data collection occurring two months following the initial point of data collection.

Child assent forms were signed at the club directly before questionnaires were administered. Children completed their questionnaires individually, as a research team member read each question aloud to the group. The child questionnaire required participants to report on their feelings and behaviors, including aggression and delinquency, their parent and peer relationships, and the behavior of their friends. The battery of questions was completed within 20-minutes. Children received a \$5.00 voucher for the club store for their participation.

Children were administered questions in a group setting. Kindergartners and first graders were administered questions separately from the older children. For younger children, questionnaires were administered to groups of three to ten children with a minimum of three study staff members present. One staff member read the questions aloud and the other staff members assisted children with individual questions regarding the items. Staff members intervened to help clarify items and assist children individually when requested. The younger children were administered the questions in a small group instruction room. Older children were administered questionnaires in groups of 10 to 15 children with a minimum of three staff members present. One staff member read the questions aloud and the other staff members assisted children with individual questions about the items. Children were spaced out and unable to see each others' responses during questionnaire administration to protect respondent confidentiality. Questionnaires were administered during free time activities to prevent interference with regular club activities.

A staff member, who supervises all the children, provided responses regarding each child's feelings and behavior, including aggression, delinquency, anxiety and depression, and the child's peer/social interactions. This administration took approximately 15 minutes to complete per child, and was collected via computer using MediaLab Software. Club staff member consent was obtained prior to commencing participation at the first wave of data collection. The club staff member was reminded that they were free to decline responding on any one child if they chose to do so. The staff member was compensated with a \$250.00 dollar gift card for study participation at each time point.

The director of the club provided information regarding each child's length of membership, attendance, disciplinary record, general academic standing, and demographic information. This questionnaire took approximately ten minutes to complete per child, and was collected via computer using MediaLab Software. Director consent was obtained prior to commencing participation at the first wave of data collection. The director was reminded that they were free to decline responding on any one child, if they chose to do so. The director was compensated with a \$250.00 dollar gift card for study participation at each time point.

Measures

Demographic Information. Child demographics and information regarding the child's club membership was obtained from the club director. For example, the club director provided information regarding the child's gender, age, grade, disciplinary status (e.g., Has this child been a disciplinary problem?), parental involvement (e.g., How involved are this child's parents [legal guardian] with regard to the child?), and academic performance (e.g., How well does this student perform academically?).

Internalizing Symptoms. There is literature to suggest that children may be better informants of internalizing symptomology, as depression and anxiety are subjectively experienced by the child and may not easily observed by other informants, such as teachers (e.g., De Los Reyes & Kazdin, 2005). Therefore, child-reports of child internalizing symptoms were included. Children responded to the 24-item Internalizing Subscale of Youth Self Report (Achenbach & Rescorla, 2001). An example of an internalizing item of this subscale is "I am unhappy, sad, or depressed." Children responded using a 3-point likert scale where 1 corresponded to "Not True," 2 corresponded to "Somewhat or Sometimes True," and 3

corresponded to “Very True or Often True.” This measure has been found to be a valid and reliable measure of child internalizing symptomology (Achenbach & Rescorla, 2001). The internal consistency of this measure of internalizing behavior in the current sample was good ($\alpha = .93$). For a complete list of included items, please see Appendix A.

Parental Psychological Control. Child perception of parental psychological control was collected using the traditional scale of psychological control adapted from Schaefer (1965). This 8-item Psychological Control Scale, Youth Self Report (PCS-YSR) (Barber, 1996) is a measure of the child’s perception of parental attempt to control or undermine the child’s sense of emotional autonomy. Sample items include, “My [mother/father] changes the subject whenever I have something to say,” “My [mother/father] blames me for other family members’ problems,” and “My [mother/father] brings up my past mistakes when she/he criticizes me.” Children responded using a 3-point scale (1 = not like her/him, 2 = somewhat like her/him, or 3 = a lot like her/him). Children were instructed to respond in regards to the individual they considered their mother figure and the individual they consider their father figure. If they did not have an individual they considered to fill these roles, they were prompted to leave those items blank. Child perception of psychological control was included, as opposed to parent report, as previous research indicates that child perceived parental psychological control may have important implications for adjustment outcomes (Morris, et al., 2002). Due to the mixed evidence regarding the differential effects of maternal and paternal psychological control (Casas, et al., 2006; Crick & Nelson, 2002; Hart, et al., 1998), maternal and paternal psychological were examined separately. However, because the pattern of effects was similar, child reports of maternal and paternal psychological control were combined and used for analyses. This

approach is consistent with previous research regarding psychological control (e.g., Gaertner, Rathert, Fite, Vitulano, Wynn, & Harber; 2010). It should also be noted that all models were run to include maternal, paternal, and combined reports of psychological control, and no significant differences in the proposed pathways were detected (Table 2). Mean scores were computed and used for analyses. The PCS-YRS is a valid and reliable measure of parental psychological control (Barber, 1996). Internal consistencies for this measure of maternal, paternal and combined parental psychological control ranged from adequate to good (α 's = .77, .84, .86 respectively). For a complete list of questions, please see Appendix B.

Relational and Physical Aggression. Child report of relational aggression and physical aggression were assessed using the Children's Social Behavior Scale - Self Report (CSBS-S; Crick & Grotpeter, 1995). This scale includes measures of both physical aggression and relational aggression. Previous research indicates strong interrelatedness between these constructs (e.g., Gaertner, et al., 2010; Ostrov & Houston, 2008), and therefore, physical aggression was controlled for in all analyses in order to determine the unique effects of relational aggression in the proposed pathways. The CSBS-S (Crick & Grotpeter, 1995) is a 15-item measure consisting of 6 subscales designed to assess relational aggression, physical aggression, prosocial behavior, verbal aggression, inclusion, and loneliness. A sample item from the 5-item relational aggression subscale is "Some kids tell lies about a classmate so that the other kids won't like the classmate anymore. How often do you do this?." A sample item from the 2-item physical aggression subscale is "Some kids hit other kids at school. How often do you do this?." The child responded using a 5-point scale (1 = never to 5 = all the time). CPSB-S is indicated as a valid and reliable measure of child relational and physical aggression (Crick & Grotpeter,

1995). Mean scores were computed and used for analyses. The observed internal consistency of this measure of relational aggression was low ($\alpha = .68$) and adequate for physical aggression ($\alpha = .79$).

Friendship Quality. Child report of friendship quality was assessed using an abbreviated version of the Friendship Quality Questionnaire (18-items) (Parker & Asher, 1993). The three items with the highest factor loadings from each of the six subscales of this measure of friendship quality (validation and caring, conflict resolution, conflict and betrayal, help and guidance, companionship and recreation, and intimate exchange) were taken to compose this abbreviated measure. This method for abbreviating this measure of friendship quality has been implemented in previous friendship quality literature (Grottpeter & Crick, 1996). The FQQ is a valid and reliable measure of friendship quality, in which the six friendship quality subscales represent distinct aspects of overall friendship quality (Parker & Asher, 1993).

Children rated qualitative aspects of the best friendship using a 5-point scale (*1 = not at all true, 2 = a little true, 3 = somewhat true, 4 = pretty true, 5 = really true*). Examples of included items are “My best friend and I tell each other secrets” and “My best friend makes me feel good about my ideas.” Mean scores were computed and used for analysis. Child perception of the quality of their best friendship relationship was included because there is literature to suggest an association between perceived friendship quality and adjustment outcomes in children and adolescence (e.g., Fordham & Stevenson-Hinde, 1999). The observed internal consistency for this composite measure of friendship quality was excellent ($\alpha = .99$). For a complete list of included items, please see Appendix D.

Data Analytic Plan

In order to address the primary aim of the proposed research, two competing models regarding the relation between parental psychological control and internalizing symptoms were estimated. The first model included a direct path from parental psychological control to internalizing symptoms in addition to a three-chain mediated pathway from parental psychological control to internalizing symptoms, with relational aggression and friendship quality serving as partial mediators (Figure 1a). The second model examined friendship quality as moderator in the pathways from parental psychological control to child internalizing symptomology with relational aggression as a partial mediator (Figure 1b). All models were run for both maternal and paternal psychological control. A third analysis was run to include a combined measure of psychological control. A list of parameter estimates for maternal, paternal, and combined psychological control for both models can be found in Tables 2 and 3. Because a similar pattern of results was detected for all three measures of psychological control, the combined measure was the focus of the results, as is consistent with previous research regarding psychological control (Gaertner, et al., 2010).

To address the secondary aims of the proposed research, the impact of age and gender was examined. Age was examined as a moderator of proposed relations by adding two- and three-way interaction terms to the models (Figures 1a and 1b). A multiple group model approach was attempted to determine gender differences in the proposed models. Due to small sample size and model complexity, however, these analyses were not estimable. Therefore, gender was examined as a moderator of the proposed relations by adding two- and three-way interaction terms to the models (Figures 1a and 1b).

As indicated in the introduction, age, gender, and physical aggression were controlled for in all analyses (Olsen, et al., 2002, Loukas, et al., 2005, Costello, et al., 2003; Crick & Grotpeter, 1995, 1996; Soenens, et al., 2008). Provided that psychological control has been found to be more prominent in African American populations (Barber, 1996; Barber, Bean, & Erickson, 2002), in addition to literature which suggests that there are racial and cultural differences in associations between parental psychological control and youth adjustment (Loukas, Paulos, Robinson, 2005; Olsen, et al., 2002), racial status (minority versus non-minority status) was also controlled for in all analyses.

Models were estimated using Mplus 4.2 Statistical Software (Muthen & Muthen, 2006) using maximum likelihood estimation. Skewness and kurtosis of study variables were assessed in order to determine the normality of the data. As seen in Table 1, skewness of all variables was less than three, indicating non-normality was not a concern and further supported the use of maximum likelihood estimation (Kline, 2005). To account for missing data, full information maximum likelihood estimation (FIMLE) was used. This method uses all available data to calculate parameter estimates and does not exclude missing data (Kline, 2005). As such, FIMLE is a less biased and more efficient method to accommodate missing data than pairwise and listwise deletion (Arbuckle, 1996). χ^2/df , Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) were used to evaluate model fit. The following guidelines for these indices were used to determine good model fit: $\chi^2/df < 2.0$, CFI $> .95$ and RMSEA $< .08$ (Hu & Bentler, 1999; Tabachnick & Fidell, 2001).

The biased-corrected bootstrap method was used to test hypothesized indirect effects (MacKinnon, Lockwood, & Williams, 2004). This method for testing indirect effects provides a

more balanced approach to Type I and Type II error than other methods for testing indirect effects (MacKinnon, Lockwood, & Williams, 2004). To test for significance, 500 bootstrap samples were specified and the 95% bias-corrected confidence intervals (CIs) were consulted.

Results

Descriptive Statistics

All correlations, means, standard deviations, skewness, and kurtosis of observed constructs can be found in Table 1. Maternal, paternal, and combined parental psychological control were all significantly, positively related to internalizing symptoms. Friendship quality was not significantly correlated with any study variables. The detected significant correlations are consistent with the current body of literature which strongly supports an association between psychologically controlling parenting and anxious and depressive symptomology in children and adolescents (e.g., Albrecht, et al., 2007; Soenens, et al., 2008). Additionally, mother, father, and combined parental psychological control were positively related to one another. Thus, children in this sample are consistently reporting their perceptions of both maternal and paternal psychological control.

Additionally, as anticipated based on the current body of aggression literature (e.g., Gaertner, et al., 2010; Grotzinger & Crick, 1996; Ostrov & Houston, 2008), relational aggression was highly correlated, in a positive direction, with physical aggression. Both relational aggression and physical aggression were associated with internalizing symptoms and mother, father, and combined parental psychological control. This is consistent with the preexisting literature which indicates that relationally aggressive youth are likely to experience internalizing symptomology (Crick & Grotzinger, 1995; Prinstein, 2001) and that parental psychological

control is associated with both relational and physical forms of aggressive behavior (Crick & Nelson, 2002; Albrecht, et al., 2007). Finally, physical and relational aggression were positively associated with race, suggesting that minority youth were more likely to report engaging in physically and relationally aggressive behaviors than non-minority youth, which is also consistent with prior research (David & Kistner, 2000; Putallaz, et al., 2007).

Model Evaluation

Three Chain Mediation Model (Figure 1a). In order to determine the mediating effect of relational aggression and friendship quality on the relation between parental psychological control and relational aggression, a three-chain mediation model was estimated. More specifically, psychological control, friendship quality, relational aggression, physical aggression, gender, minority status, and age were regressed on child internalizing symptomology. Note that physical aggression and relational aggression were made to covary to control for the high correlation between these variables.

The model was just-identified and thus provided a perfect fit to the data ($\chi^2 = .00$, $df = .00$, $p = .00$, $\chi^2/df = .00$, CFI = 1.00, RMSEA = .00). Examination of parameter estimates indicated that, contrary to study hypotheses, relational aggression and friendship quality did not mediate the pathway from parental psychological control to internalizing symptoms for combined, maternal, or paternal psychological control (Table 2). Figure 2 depicts the parameter estimates for combined parental psychological control.

Moderation Mediation Model (see Figure 1b) The second model examined friendship quality as a moderator of the paths from parental psychological control to internalizing symptoms through relational aggression. Evaluating this moderated mediation model required

several steps. First, a direct path was estimated from parental psychological control to internalizing symptoms and a mediated path from parental psychological control to relational aggression to internalizing symptoms. Psychological control, relational aggression, physical aggression, minority status, gender, and age were regressed on child internalizing symptoms. Again, covariance was added between physical aggression and relational aggression to control for the high co-occurrence of these behaviors.

The first step of this model was just-identified and thus provided a perfect fit to the data ($\chi^2 = .00$, $df = .00$, $p = .00$, $\chi^2/df = .00$, CFI = 1.00, RMSEA = .00). Results indicated that contrary to hypotheses, relational aggression did not mediate the association between psychological control and internalizing symptomology. For the combined psychological control model, minority status was associated with child internalizing symptomology ($B = .23$, $p = .03$), such that children of minority status reported higher levels of internalizing symptomology than Caucasian children. This association, however, was not found in either the maternal or the paternal psychological control models. For the paternal psychological control model, gender was negatively associated with relational aggression ($B = -.20$, $p = .04$), indicating that males reported higher levels of relational aggression than females.

Interaction terms between parental psychological control and friendship quality (psychological control X friendship quality) and relational aggression and friendship quality (relational aggression X friendship quality) were created and added to the model. This model yielded provided a poor fit to the data ($\chi^2 = 413.01$, $df = 1$, $p = .00$, $\chi^2/df = 413.01$, CFI = .01, RMSEA = 1.77). Modification indices were consulted to determine if adding additional parameters would improve the model fit. The suggested pathways, however, were not

empirically or theoretically driven, and thus these modifications were not implemented. For a summary of the combined psychological control model, please see Figure 3. For a summary of maternal, paternal, and combined psychological control pathway estimates, please see Table 3.

Age as a Moderator

Three Chain Mediation Model (Figure 1a.) by Age. Age was examined as a moderator of the proposed relations by adding two-way interaction terms to the proposed model (Figure 1a.). Interaction terms were created between all hypothesized pathway variables and age: physical aggression X age, relational aggression X age, parental psychological control X age, and friendship quality X age. The first order effects of psychological control, friendship quality, relational aggression, physical aggression, gender, minority status, and age plus the interactions between these independent variables and age were regressed on child internalizing symptomology. Also note that relational aggression and physical aggression were made to covary to control for the high correlation between these variables. This model yielded a poor fit to the data ($\chi^2 = 578.58$, $df = 4$, $p = .00$, $\chi^2/df = 144.65$, CFI = .12, RMSEA = 1.04).

Moderated Mediation Model (Figure 1b) by Age. In order to test age as a moderator, two-way interactions were created between all independent variables and age: physical aggression X age, relational aggression X age, parental psychological control X age, and friendship quality X age. Three-way interactions were also created between parental psychological control, friendship quality, and age (psychological control X friendship quality X age) and relational aggression, friendship quality, and age (relational aggression X friendship quality X age). This model was again examined in multiple steps. First, a model that included a direct path from parental psychological control to internalizing symptoms and a mediated path from parental

psychological control to relational aggression to internalizing symptoms with age as a moderator. A covariance between physical aggression and relational aggression was also included to control for the high co-occurrence of these behaviors.

The combined psychological control model for the first step of model analysis yielded provided a poor fit to the data ($\chi^2 = 257.35$, $df = 2$, $p = .00$, $\chi^2/df = 128.68$, CFI = .24, RMSEA = .98). In the next step of the model, the moderating effect of friendship quality X age on these pathways was included. The first order effects in addition to two- and three-way interactions by age (psychological control X age, friendship quality X age, relational aggression X age, physical aggression X age, friendship quality X relational aggression X age, and friendship quality X parental psychological control X age) were regressed on child internalizing symptoms.

Additionally, physical aggression and relational aggression were made to covary.

The combined parental psychological control model provided a poor fit to the data ($\chi^2 = 802.55$, $df = 4$, $p = .00$, $\chi^2/df = 200.64$, CFI = .02, RMSEA = 1.23). Note that maternal and paternal psychological control by age models would not converge. The default number of iterations for Mplus 4.2 Statistical Software (Muthen & Muthen, 2006) is 1,000. This number was increased to 2,000 in attempt to assist model convergence, to no avail. Additionally, the number of bootstrap samples was increased from 500 to 1,000, which also failed to converge.

Gender as a Moderator

Three Chain Mediation Model (Figure 1a.) by Gender. Gender was examined as a moderator of the proposed relations by adding two-way interaction terms to the proposed model (Figure 1a). Interaction terms were created between: physical aggression X gender, relational aggression X gender, parental psychological control X gender, and friendship quality X gender.

The first order effects, plus the interactions between these study variables and gender, were regressed on child internalizing symptomology. Physical aggression and relational aggression were made to covary to control for the high correlation between these variables.

The combined psychological control model, in addition to the maternal and paternal psychological control models, yielded a poor fit to the data ($\chi^2 = 502.47$, $df = 4$, $p = .00$, $\chi^2/df = 125.62$, CFI = .09, RMSEA = .97).

Moderated Mediation Model (Figure 1b) by Gender. In order to test gender as a moderator, two-way interactions were created between all independent variables and gender: physical aggression X gender, relational aggression X gender, parental psychological control X gender, and friendship quality X gender. Three-way interactions were also created between parental psychological control, friendship quality, and gender (psychological control X friendship quality X gender) and relational aggression, friendship quality, and gender (relational aggression X friendship quality X gender). This model was again examined in multiple steps. First, a direct path was estimated from parental psychological control to internalizing symptoms and a mediated path from parental psychological control to relational aggression. Additionally, the interactions between study variables and gender were regressed onto internalizing symptoms with age as a moderator. A covariance between physical aggression and relational aggression was also included to control for the high co-occurrence of these behaviors. The combined psychological control model for the first step of the model analysis yielded a poor fit to the data ($\chi^2 = 181.44$, $df = 2$, $p = .00$, $\chi^2/df = 90.72$, CFI = .23, RMSEA = .82).

In the next step of the model, examining the moderating effect of friendship quality X gender on these pathways, the first order effects (friendship quality, parental psychological

control, relational aggression, physical aggression, psychological control X friendship quality, relational aggression X friendship quality, age, gender, and minority status) in addition to two- and three-way interactions by gender (psychological control X gender, friendship quality X gender, relational aggression X gender, physical aggression X gender, friendship quality X relational aggression X gender, and friendship quality X parental psychological control) were regressed on child internalizing symptoms. Physical aggression and relational aggression were allowed to covary. The combined psychological control model yielded provided a poor fit to the data ($\chi^2 = 743.38$, $df = 4$, $p = .00$, $\chi^2/df = 185.84$, $CFI = .00$, $RMSEA = 1.18$). Poor model fit was replicated in both the maternal and paternal psychological control models.

Post Hoc Analyses

Results of the structural equation modeling indicated that the hypothetical models proposed provided a poor fit to the data. Poor model fit suggests a failure to accurately replicate the variance covariance matrix of the included sample (Kline, 2005). Thus, the parameter estimates of such models cannot be interpreted with accuracy, as the model is attempting to allocate variance that does not adequately describe the data (Kline, 2005). Correlation analyses indicated significant, positive associations between parental psychological control and internalizing symptomology, parental psychological control and relational aggression, and relational aggression and internalizing symptomology, as was anticipated (See Table 1). Kline (2005) clarifies that model fit does not determine whether or not pathway estimates are significant. Instead, model fit statistics represent a metric for determining if the hypothesized models accurately describe the included sample. Therefore, in constructing and evaluating hypothetical models that failed to yield adequate model fit, the ability to accurately examine

associations between study variables was hindered. Thus, a program of post hoc analysis was implemented to further determine the nature the proposed relations.

In the three chain moderation model (Figure 1a), it was anticipated that relational aggression and friendship quality would partially mediate the relation between parental psychological control and child internalizing symptomology. This model, however, provided a poor fit to the data. In taking a step back, correlation analyses were consulted to determine that friendship quality was not significantly related to parental psychological control, relational aggression, or child internalizing symptoms indicating that friendship quality could not be a mediator of the link between parental psychological control and child internalizing symptomology. Thus, a modification was made to Figure 1a, removing friendship quality from the path analysis, resulting in a two chain mediation analysis. It was anticipated that relational aggression would partially mediate the association between parental psychological control and child internalizing symptoms (see Figure 4).

In the moderated mediation model (Figure 1b); friendship quality was examined as a moderator, simultaneously in the proposed partially mediated pathways from parental psychological control to child internalizing symptoms through relational aggression. Given that this model did not yield an adequate fit to the data, it was deconstructed and examined in individual moderation models. First, friendship quality was examined as a moderator in the association between parental psychological control and child internalizing symptoms. Next, friendship quality was examined as a moderator in the association between parental psychological control and relational aggression. Finally, friendship quality was examined as a moderator in the relation between relational aggression and child internalizing symptoms. As

previously hypothesized in the moderated mediated model (Figure 1b), it was anticipated that friendship quality would weaken the strength of these associations, thus providing a protective function. In the next step, interactions were tested simultaneously (child internalizing symptoms on friendship quality X psychological control and friendship quality X relational aggression) to more closely approximate the originally proposed moderated mediation path model (Figure 1b).

In order to address the second and third aims of the project, two- and three-way interactions with age and gender were examined. Note that the moderating effects of age and gender were examined separately to aid in interpretation of results. Two-way interaction terms (i.e., age/gender X psychological control and age/gender X relational aggression) were first evaluated in order to determine if the impact of psychological control on relational aggression and internalizing symptoms as well as the impact of relational aggression on internalizing symptoms depended on age and/or gender. Next, three-way interaction terms (i.e., age/gender X friendship quality X psychological control, age/gender X friendship quality X relational aggression) were evaluated in order to determine if the impact of friendship quality on proposed associations depended on gender and/or age.

Multiple regression analyses were conducting using SAS statistical software. Age, gender, and minority status were controlled for in all analyses. Physical aggression was controlled for in all analyses that included relational aggression. For moderation analyses, all variables were standardized to aid in the interpretation of interaction effects. Significant interactions were conditioned at high (+1 SD) and low (-1 SD) levels of friendship quality in order to determine the nature of the interaction (Aiken & West, 1991). For mediation analysis, however, variables remained unstandardized, as is recommended in the mediation literature (Kim

& Ferree, 1981). All analyses were first run for the combined measure of psychological control. Significant combined models were run for maternal and paternal psychological control separately to determine if there were any differences regarding parental gender in the nature of these associations.

Mediation Analyses.

To examine relational aggression as a partial mediator in the pathway from parental psychological control to internalizing symptoms, a four step, multiple regression analytical method was employed (Baron & Kenny, 1986). Please see Table 4 for a complete list of mediation analyses. First child internalizing symptoms were regressed onto parental psychological control, physical aggression, minority status, age, and gender. Parental psychological control and physical aggression were positively associated with child internalizing symptoms ($\beta = .38, p < .0001$ and $\beta = .08, p = .01$, respectively). Minority status, age, and gender were not significantly associated with child internalizing symptoms ($ps > .16$).

In the second step of analysis, the mediator, relational aggression, was regressed onto parental psychological control, physical aggression, minority status, age, and gender. Parental psychological control and physical aggression were positively associated with relational aggression ($\beta = .38, p = .02$ and $\beta = .43, p < .0001$, respectively). Minority status, age, and gender were not significantly associated with relational aggression ($ps > .42$).

Next, child internalizing symptoms were regressed onto relational aggression, physical aggression, minority status, age, and gender. Relational aggression was associated with child internalizing symptoms ($\beta = .24, p < .0001$), and age was negatively associated with internalizing symptoms ($\beta = -.24, p = .03$), such that younger children were more likely to report internalizing

symptomology. Physical aggression, minority status, and gender were not significantly associated with child internalizing symptoms ($ps > .28$).

Finally, while controlling for the mediating variable, relational aggression, child internalizing symptoms were regressed onto parental psychological control, physical aggression, minority status, age and gender. Results indicated that parental psychological control remained a significant predictor of child internalizing symptoms ($\beta = .30, p = .00$), as did relational aggression ($\beta = .20, p < .0001$). Physical aggression, age, minority status, and gender were not significant predictors of child internalizing symptoms ($ps > .10$).

In order to determine the significance of the indirect effect, Sobel's method was implemented (Baron & Kenny, 1986). According to this method of significance testing, relational aggression partially mediated the association between parental psychological control and internalizing symptoms (Sobel Test Statistic = 3.42, SE = .03, $p = .00$). The Sobel Test is a more conservative, stringent method of testing indirect effects (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Because significant partial mediation effects were detected using Sobel's method, confidence in the occurrence of partial mediation was obtained, and thus bootstrap analysis was not pursued further.

In order to further explore the nature of these effects, the four step multiple regression process for testing mediation was repeated for both maternal psychological control and paternal psychological control. See Table 4 for a complete list of mediation regression analyses for maternal and paternal psychological control. Sobel's test of indirect effects indicated that for the maternal psychological control model, relational aggression partially mediated the pathway from maternal psychological control to internalizing symptoms (Sobel Test Statistic = 2.49, $p = .01$).

For the father psychological control model, however, Sobel's test of indirect effects failed to detect mediation (Sobel Test Statistic = 1.86, $p = .06$). Because this method of testing indirect effects is more conservative, and thus more biased towards Type II error (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002), bootstrap analyses were employed. To test for significance, 5,000 bootstrap samples were specified and the 95% confidence interval was consulted. This method of testing for indirect effects confirmed that partial mediation did not occur in the father psychological control model ($p = .06$). Although partial mediation was not detected, it is important to note that the pattern of effects was identical to the mother and combined psychological control models and that the indirect effect neared statistical significance for the paternal psychological control model.

Moderation Analyses.

A complete list of the combined, paternal, and maternal psychological control moderation analyses can be found in Tables 5, 6, and 7 respectively.

Parental Psychological Control X Friendship Quality on Internalizing Symptoms. In order to test the moderating effect of friendship quality on the association between parental psychological control and friendship quality, child internalizing symptoms were regressed onto friendship quality, parental psychological control, gender, age, and minority status. Parental psychological control was the only significant predictor of child internalizing symptoms in this first order effects model ($\beta = .46, p < .0001$). Friendship quality, gender, age, and minority status were not significantly associated with child internalizing symptoms ($ps > .23$). Next, the interaction between friendship quality and parental psychological control was added to the model. Analysis indicated a significant interaction between parental psychological control and

friendship quality on child internalizing symptoms ($\beta = .19, p = .04$). This significant interaction was probed at high (+1 SD) and low (-1 SD) levels of the moderator. At both high levels and low of friendship quality, parental psychological control was positively associated with child internalizing symptoms ($\beta = .65, p < .000$ and $\beta = .27, p = .03$ respectively). Examination of the beta weights indicated that, contrary to hypotheses, the association between parental psychological control and child internalizing symptoms was stronger at high levels of friendship quality when compared low levels of friendship quality. In other words, high friendship quality exacerbated or strengthened the association between psychological control and child internalizing symptoms (See Figure 5).

This finding was explored further by examining maternal and paternal psychological control independently. Friendship quality did not moderate the association between maternal psychological control and child internalizing symptoms ($\beta = -.01, p = .92$); see Figure 6a. For paternal psychological control, however, a significant interaction between psychological control and friendship quality was detected ($\beta = .33, p = .00$). This interaction was probed at high and low levels of friendship quality. A significant association between paternal psychological control and child internalizing symptoms was detected at high levels of friendship quality ($\beta = .82, p < .00$), whereas at low levels of friendship quality, paternal psychological control and child internalizing symptoms were unrelated ($\beta = .13, p = .16$); see Figure 6b. Thus, it appears as though paternal psychological control, not maternal psychological control, is driving the nature of this detected interaction effect in the combined psychological control moderation model.

Parental Psychological Control X Friendship Quality on Relational Aggression. In order to test the moderating effect of friendship quality on the relation between parental psychological

control and relational aggression, relational aggression was regressed onto parental psychological control, friendship quality, physical aggression, gender, minority status, and age. Results of this first order effects model indicated that parental psychological control and physical aggression were significantly associated with relational aggression ($\beta = .19, p = .02$ and $\beta = .53, p < .00$, respectively). Friendship quality, gender, minority status, and age were unrelated to relational aggression ($ps > .46$). In the next step of the model, an interaction between parental psychological control and friendship quality was added to the model. There was a non-statistically significant trend for friendship quality to moderate the association between psychological control and relational aggression ($\beta = .14, p = .09$); see Figure 7.

In order to further explore the nature of this effect, maternal and paternal psychological control models were run separately. For the maternal psychological control model, friendship quality did not moderate the association between psychological control and relational aggression; see Figure 8a. In the paternal psychological control model, however, friendship quality did moderate the relation between psychological control and relational aggression ($\beta = .20, p = .01$), however, the hypothesized buffering effect was not detected. Rather, at high levels of friendship quality, paternal psychological control was positively associated with relational aggression ($\beta = .38, p = .00$) whereas at low levels of friendship quality, paternal psychological control was unrelated to relational aggression ($\beta = -.02, p = .88$); see Figure 8b. Again, it appears as though paternal psychological control, not maternal psychological control, was driving the nature of the detected trend in the combined psychological control moderation model.

Relational Aggression X Friendship Quality on Internalizing Symptoms. To test the first order effects of relational aggression and friendship quality on internalizing symptoms, child

internalizing symptoms were regressed onto relational aggression, physical aggression, gender, minority status, and age. Results of this preliminary model indicated that relational aggression was positively associated with child internalizing symptoms ($\beta = .53, p < .00$). Age was negatively associated with child internalizing symptoms ($\beta = -.19, p = .02$), suggesting that younger children were more likely to report internalizing symptomology than older children. Friendship quality, physical aggression, minority status, and gender were not significantly related to child internalizing symptoms in this model. Next, the interaction between relational aggression and friendship quality was added to the model. This interaction was not found to be significant ($\beta = .08, p = .35$), and thus no further analyses were implemented.

Combined Moderation Model. In order to more closely approximate the initially proposed moderation model (Figure 1b) child internalizing symptoms were regressed onto interactions between parental psychological control and friendship quality and relational aggression and friendship quality simultaneously; see Table 8. First, a model was estimated in which child internalizing symptoms were regressed onto parental psychological control, friendship quality, relational aggression, physical aggression, gender, minority status, and age. Parental psychological control and relational aggression were significantly, positively associated with child internalizing symptoms ($\beta = .34, p = .00$ and $\beta = .44, p < .00$ respectively). Friendship quality, physical aggression, age, gender, and minority status were not related to child internalizing symptoms ($p > .08$).

Next, interactions between parental psychological control and friendship quality and between relational aggression and friendship quality were added to the model. Results indicated that friendship quality did not moderate the association between relational aggression and child

internalizing symptoms ($\beta = -.01, p = .91$) or between parental psychological control and child internalizing symptoms ($\beta = .16, p = .09$). This combined model is instrumental in explaining the failure to provide an adequate model fit in the moderated mediated hypothesized model (Figure 1b). Although moderation effects were detected, specifically for paternal psychological control, when moderation was examined in independent two-way interaction models, this effect was lost when interactions were run simultaneously in the same model. It is likely that the amount of shared variance among variables was too high to detect these effects, thus aiding in understanding why the model fit was so poor for the moderated mediated structural equation model (Figure 1b). Please see Table 8 for a list of the regression weights for the combined model analyses.

In a final step of analysis, the combined moderation analyses were run independently for maternal psychological control and paternal psychological control (please see Table 8). Again, maternal psychological control yielded no significant interactions with friendship quality ($ps > .39$). The paternal psychological control model, however, indicated a statistically significant interaction between father psychological control and friendship quality in association with child internalizing symptoms ($\beta = .26, p = .00$). This interaction was probed at high and low levels of friendship quality. Results indicated that at high levels of friendship quality, paternal psychological control was positively associated with child internalizing symptoms ($\beta = .61, p < .00$), whereas at low levels of psychological control, paternal psychological control was unrelated to child internalizing symptoms ($\beta = .09, p = .46$). Thus, the detected interaction effect of paternal psychological control and friendship quality on child internalizing symptoms remained stable, despite the increased complexity of this combined model.

Age as a Moderator

Interaction terms were created between parental psychological control and age and child relational aggression and age, and these interaction terms were added to the regression models described above to detect relational aggression as a partial mediator in the association between parental psychological control and child internalizing symptoms. Results indicated that the proposed associations did not depend on age; please see Table 9.

Gender as a Moderator

Interaction terms were created between parental psychological control and gender and child relational aggression and gender, and these interaction terms were added to the regression models described above to detect relational aggression as a partial mediator in the association between parental psychological control and child internalizing symptoms. Results indicated that the proposed associations did not depend on gender; please see Table 10.

Moderating Effect of Friendship Quality Depending on Age

In order to test the moderating effect of age on the proposed moderation analyses, three-way interaction terms were created and added to the models (age X parental psychological control X friendship quality; age X relational aggression X friendship quality). Results indicated a non-statistically significant trend for age and friendship quality to moderate the association between parental psychological control and relational aggression ($\beta = .15, p = .07$); see Figures 10a and 10b. This interaction was further explored by examining the effects for maternal and paternal psychological control independently (see Table 12). Results indicated that age and friendship quality significantly moderated the association between maternal psychological

control and child relational aggression ($\beta = .18, p = .02$), but not paternal psychological control and child relational aggression ($\beta = -.04, p = .69$).

The significant interaction between age and friendship quality on the association between maternal psychological control and relational aggression was probed at high and low levels of age and friendship quality. For older children (see Figure 11a), at high levels of friendship quality, maternal psychological control was positively associated with relational aggression ($\beta = .36, p = .00$), whereas, at low levels of friendship quality, maternal psychological control was unrelated to relational aggression ($\beta = -.09, p = .66$). For younger children (see Figure 11b), at high levels of friendship quality, maternal psychological control was unrelated to relational aggression ($\beta = .07, p = .65$), whereas, at low levels of friendship quality maternal psychological control was positively associated with relational aggression ($\beta = .33, p = .03$). Therefore, for older children, the association between maternal psychological control and relational aggression was the strongest at high levels of friendship quality, but for younger children, friendship quality appears to play a buffering role in the association between maternal psychological control and relational aggression.

Age did not moderate the impact of friendship quality on the association between parental psychological control and child internalizing symptoms or between relational aggression and child internalizing symptoms ($ps > .50$). For a complete list of age moderation analyses, please see Table 11.

Moderating Effect of Friendship Quality Depending on Gender

In order to evaluate whether the moderating effect of friendship quality depended on gender, three way interaction terms were created and added to the models (gender X parental

psychological control X friendship quality; gender X relational aggression X friendship quality). Results indicated that the moderating effect of friendship quality did not depend on gender for any of the proposed pathways (i.e., on the association between parental psychological control and child internalizing symptoms, between parental psychological control and relational aggression, and between relational aggression and child internalizing symptoms; $ps > .53$); see Table 13.

Discussion

This cross sectional analysis examined two competing models investigating the impact of relational aggression and friendship quality on the association between parental psychological control and child internalizing symptomology. In an important extension of the literature, an at-risk, predominantly minority sample of children was included to examine the proposed associations. First, a three chain mediation model was examined; such that relational aggression and friendship quality were anticipated to partially mediate the association between parental psychological control and child internalizing symptomology. In a second model, friendship quality was examined as a moderator in the partially mediated pathway from parental psychological control to child internalizing symptomology through relational aggression.

It can be concluded that neither theoretical model received support, in regards to overall model fit, in this sample, by the proposed program of analysis. Further analysis was needed, however, to evaluate the significance of the individual proposed pathways. Thus, a program of post-hoc analyses was employed. Following consultation of correlation analyses, which indicated that friendship quality was not associated with parental psychological control, relational aggression, or child internalizing symptoms, friendship quality was eliminated as a mediator.

The first step of post hoc analyses aimed to determine if relational aggression partially mediated the association between parental psychological control and child internalizing symptomology. Indeed, as expected, relational aggression partially mediated this pathway for the combined and maternal psychological control models. Secondly, to determine the nature of the proposed moderation hypotheses, friendship quality was examined as a moderator in the pathway between parental psychological control and child internalizing symptoms, parental psychological control and relational aggression, and relational aggression and child internalizing symptoms. Although it was anticipated that friendship quality would provide a buffering effect for these pathways, it was determined that friendship quality exacerbated the association between parental psychological control and child internalizing symptoms. Upon further analysis, it was determined that paternal psychological control appears to be driving this detected interaction effect. Moreover, friendship quality moderated the association between paternal psychological control and relational aggression as well, such that high friendship quality strengthened the relational between paternal psychological control and relational aggression. Note that this effect was not detected in the combined and maternal psychological control models, and remained stable in the paternal psychological control model when tested in combination with the interaction between friendship quality and relational aggression on child internalizing symptoms, despite increased model complexity.

Finally, post-hoc moderation analyses were implemented to determine the effect of age and gender on the proposed pathways. Only one effect of age was found. More specifically, results indicated that for older children, friendship quality exacerbated the association between maternal psychological control and relational aggression, but for younger children, friendship

quality appears to play a buffering role in the association between maternal psychological control and relational aggression.

Relational Aggression: The partial mediator

It should first be noted that first order effects indicated that parental psychological control was positively associated with both internalizing symptomology and relational aggression, in a positive direction. Moreover, relational aggression was positively associated with internalizing symptomology. These findings are consistent with the psychological control and relational aggression literature which has established associations between parental psychological control and child internalizing symptoms (Barber, 1996; Barber & Harmon, 2002), parental psychological control and relational aggression (Albrecht, Galambos, & Jansson, 2007; Nelson, Hart, Yang, Olsen, & Jin, 2006), and relational aggression and child internalizing symptoms (Crick & Grotpeter, 1995; Crick, et al., 2006; Prinstein, Boergers, & Vernberg, 2001) across age ranges and cultural backgrounds. Furthermore, relational aggression was found to partially mediate the relation between psychological control and internalizing symptoms for the maternal and combined psychological control models, indicating that this association partially depends on relationally aggressive behavior. This effect was not detected for the paternal psychological control model, although the pattern of results was identical and neared significance. These findings are a notable extension of the current body of research regarding child internalizing symptomology.

As previously mentioned, depressive and anxious symptomology is an important area of investigation for the field of developmental psychopathology. Provided that this area of psychopathology has been established as problematic and damaging for child development

(Laukkanen, Shemeikka, Notkola, Koivumaa-Honkanen, & Nissinen, 2002) and poses an increased risk for suicidality (Ialongo et al., 2004), it is important to develop more efficient interventions. Thus, detecting relational aggression as a partial mediator the association between psychological control and internalizing symptoms offers meaningful information for the development of prevention and intervention efforts. In other words, the current research supports the assertion that both psychologically controlling parenting and child relational aggression should be targets of effective internalizing symptomology prevention and intervention efforts.

Moreover, the detection of partial mediation effects in this “at-risk,” predominantly minority sample is important. The majority of the psychological control literature in American populations reflects the inclusion of predominately Caucasian and middle class samples (Barber & Harmon, 2002). Thus this study was unique in that it investigated associations between parental psychological control, relational aggression, and internalizing symptoms in a predominantly minority and socioeconomically disadvantaged sample. In particular, it is important to determine correlates of internalizing symptomology in a disadvantaged population of youth, as socioeconomic hardship and poverty have been associated with increased risk for mental disorders and unfavorable treatment outcomes (Fryers, et al., 2003; Johnson, et al., 1999; Lorant, et al., 2003). Additionally, African American youth are more likely to experience higher levels of parental psychological control (Barber, 1996) and psychological control is associated more depression and delinquency in African American populations (Bean, Barber, & Crane, 2006). Thus the detection of mediated associations in socioeconomically disadvantaged and

minority youth is notable, as it can aid in the development of more thorough, comprehensive, and effective prevention and intervention efforts for disadvantaged, higher risk populations.

It should be noted that partial mediation effects were not detected for the paternal psychological control model, although results neared significance and all direct effects were significant in a positive direction. The social modeling underpinnings regarding the link between parental psychological control and relational aggression propose that the parent models a relationally manipulative and intrusive interaction style that is then repeated in social relationships by the child in the form of relationally aggressive behavior (Olsen, et al., 2002; Yu & Gamble, 2008). The majority of the children in the included sample, however, do not live with their biological father (83%, according to director report). Thus, these children are likely spending the majority of their time with their mother. It may be that these effects were stronger for maternal psychological control because more contact occurs between the mother and the child, allowing for more modeling of relationally manipulative interactions. Caution should be used in drawing conclusions from these preliminary findings, however, as replications need to be obtained.

Friendship Quality: Unexpected results

Correlation and first order regression analyses indicated that parental psychological control, relational aggression, and internalizing symptoms followed the anticipated patterns, consistent with both theory and empirical research (e.g. Barber, 1996; Albrecht, Galambos, & Jansson, 2007; Crick & Grotpeter, 1995). Friendship quality, however, did not appear to follow similar theoretical and empirically grounded patterns. According to the theory of social provisions (Buhrmester, 1990; Furman & Buhrmester, 1985, 1992), it was anticipated that

friendship quality may play an important role in the association between the pervasively negative dimension of parenting, parental psychological control, and poor child adjustment (i.e., child internalizing symptomology and relational aggression). Consistent with this theoretical model, children experiencing parental psychological control may seek social support from their peers. If these peer relationships are high in friendship quality, this action may have an ameliorative impact on the empirically driven associations between parental psychological control and child internalizing symptoms and relational aggression. Conversely, if these peer relationships are low in quality, as may be the case with relationally aggressive youth (Werner & Crick, 2004; Crick & Grotpeter, 1996); this may contribute to the experience of internalizing symptomology. The overarching literature regarding friendship quality suggests that positive friendship quality is associated with positive adjustment outcomes, including less internalizing symptomology (Parker & Asher, 1993) and trait anxiety (Fordham & Stevenson-Hinde, 1999), higher self esteem (Thomas & Daubman, 2001), and positive social and academic outcomes (Berndt, 1996; Berndt & Keefe, 1995; Fordham & Stevenson-Hinde, 1999; Hodges, Boivin, Vitaro, & Bukowski, 1999).

Friendship quality did not follow the anticipated theoretically and empirically driven patterns of association with child adjustment, with exception of the anticipated buffering effect of friendship quality detected for younger children in the association between maternal psychological control and relational aggression. Overall, much stronger evidence was found for friendship quality to have an exacerbating effect. Moreover, age analyses indicated that friendship quality had an exacerbating effect on the association between maternal psychological control and relational aggression for older children, who are more likely able to participate in

truly intimate and high quality friendship relationships (Buhrmester, 1990; Furman & Buhrmester, 1985, 1992). This finding, in addition to stronger support for the exacerbating effect of friendships quality, suggests that other factors may be important to consider within the context of high quality friendship relationships.

As indicated by the detection of a buffering effect of friendship quality for younger children as compared to an exacerbating effect of friendship quality for older children in the association between parental psychological control and child relational aggression, it is likely important to consider age and developmental stage in the examination of the construct of friendship quality. Buhrmester and colleagues have conducted several empirical studies in order to determine that the contributions different types of social relationships provide for the fulfillment of social needs as children develop (Buhrmester, 1990; Furman & Buhrmester, 1985, 1992). Buhrmester (1990) found that the ability to participate in close social relationships, a hallmark of positive friendship quality, increases with age. Moreover, children appear to rely more heavily on friendship relationships at the onset of adolescence, around the age of 13. These findings have important implications for the current research, as only 17% of the included sample could actually be considered as transitioning from childhood to adolescence, the period of time in which children are better able to participate in close interpersonal relationships and they begin to seek this type of relationship from their peers (Buhrmester, 1990; Furman & Buhrmester, 1985, 1992). Moreover, it is during adolescence that aspects of the friendship relationship, such as friendship intimacy, a positive feature of friendship quality, have been found to be associated with adjustment outcomes (Buhrmester, 1990). Therefore, during early

and middle childhood, friendship quality may not serve the same function or play the same role as has been observed in adolescent populations.

Only one other study to date has detected this unusual exacerbation effect of friendship quality on youth adjustment. Bowker and Rubin (2009) found that friendship quality interacted with child reported self consciousness such that friendship quality exacerbated the association between self consciousness and internalizing symptoms in a sample of young adolescents (mean age around 14). Although this is the only other study to examine friendship quality specifically, other literature has highlighted the potentially detrimental or dark side of high quality relationships (Rose, Carlson, & Waller, 2007; Waller & Rose, 2010; Murray-Close, et al., 2007).

For example, Rose, et al. (2007) found evidence to suggest that co-rumination, defined as excessive rehashing and discussion of problems, was related both to positive friend relationship quality and depressive symptomology over time. In a similar vein of research, Waller and Rose (2010) found that mother-child co-rumination was associated with positive parent-child relationship quality, in addition to relationship enmeshment and internalizing symptoms. What is more, the relation between co-rumination and internalizing symptoms was the strongest if the focus of co-rumination was reported to be on maternal problems. These findings may yield some interesting implications for the associations between parental psychological control and child internalizing symptoms, particularly when friendship quality is taken into consideration.

Psychologically controlling parents offer little appreciation for their child's emotional autonomy (Barber, 1996). Therefore, they may be more likely to attempt to engage their children in conversations about their own emotional experiences and difficulties, with little regard for the impact of this on the child's emotional experience. Moreover, the same may be

occurring within the context of child friendship relationships, where children are using their high quality relationships to discuss their problems and difficulties to the point of co-rumination. Thus the interaction between parental psychological control and friendship quality may serve as an overdose of problem discussion, ultimately resulting in higher levels of internalizing symptomology.

Similar to the aforementioned research regarding co-rumination, Murray-Close, et al. (2007) found that relationally aggressive children tend to be friends with like, relationally aggressive youth. Moreover, researchers found that close friendships with relationally aggressive youth exacerbated elementary school girls relationally aggressive behavior over the period of one year. This finding may aid in understanding the detected interaction between paternal psychological control and friendship quality on relational aggression. Psychologically controlling parenting models an intrusive and manipulative interaction style which has been associated with intrusive and manipulative behavior in children in the form of relational aggression (Albrecht, Galambos, & Jansson, 2007; Nelson, Hart, Yang, Olsen, & Jin, 2006; Yu & Gamble, 2008). High quality friendship relationships, particularly with other relationally aggressive children, may offer a venue for practicing relationally aggressive behavior (Murray-Close, et al., 2007), thus exacerbating the association between parental psychological control and relational aggression. Moreover, findings indicated that this finding held true for older children, such that at high levels of friendship quality, the association between maternal psychological control and relational aggression was strengthened. For younger children, however, high friendship quality demonstrated a buffering effect on this association. This may be because older children are more capable of participating in high quality, intimate friendship relationships

(Buhrmester, 1990; Furman & Buhrmester, 1985, 1992). Therefore, the potential combined effect of closer, more intimate friendships that may be more true of older children with likewise relationally aggressive peers may result in increased relational aggression.

It is particularly notable that significant interactions between friendship quality and parental psychological control were detected for paternal, not maternal psychological control. Differential associations between maternal and paternal effects are not foreign to the psychological control literature (Conger, Conger, & Scaramella, 1997; Olsen, et al., 2002; Rogers, et al., 2003; Soenens, Vansteenkiste, Goossens, Duriez, & Niemiec, 2008). There is literature to suggest that paternal psychological control is more problematic, particularly when maternal psychological control is also reported to be high (Roger, Buchanan, & Winchel, 2003). This does not aid in understanding why paternal psychological control would be particularly problematic in combination with high friendship quality. It may be worth considering some of the unique aspects of this sample in attempting to explain this interaction effect.

The majority of children who attend the Tennessee Valley Boy's and Girl's Clubs come from single parent homes (Boys and Girls Clubs of the Tennessee Valley, "Fast Facts PDF," n.d.). Moreover, in the current sample, 83% of children live with their biological mother, while only 17% of children live with their biological father, according to director report. There is a plethora of research to suggest that the children of single-parent families are more likely to suffer from poor adjustment outcomes (e.g., Zeiders, Roosa, & Tein, 2011; Ford, Collishaw, Meltzer, & Goodman, 2007; Fergusson, Boden, & Horwood, 2007). Therefore, the impact of co-ruminating with peers in the context of high quality friendship relationships may be particularly problematic for children if their father is also not present in the home. For example, perhaps discussing

paternal absence, in addition to emotional difficulties, in the context of high quality friendship relationships allows for an increased risk for the development of internalizing symptomology and relational aggression. Thus, the impact of psychologically controlling fathers and paternal absence may be magnified in the context of close peer relationships, resulting in increased experience of internalizing symptoms and relational aggression.

Friendship quality did not moderate the association between child relational aggression and child internalizing symptomology. Although there is literature to suggest that friendship quality can buffer or moderate associations between problematic youth adjustment (Bollmer, 2005; Nangle, et al., 2003), this is the one proposed pathway in the moderation analyses that did not involve an interaction between parenting behavior (i.e., parental psychological control) and friendship quality. The theory of social provisions contends that children seek support from different social relationships (Furman & Buhrmester, 1985, 1992). Moreover, during childhood, youth tend to rely on both parents and peers as sources of social support (Franco & Levitt, 1998, Furman & Buhrmester, 1985). Therefore, friendship quality may not have moderated the association between relational aggression and internalizing symptomology because parents were not accounted for in this model. In other words, both parents and peers, not peers alone, may be important points of consideration in these associations.

Finally, it should be noted that the proposed study relations did not depend on gender, such that relations were similar for both males and females. This finding is somewhat inconsistent with the current body of literature which indicates that internalizing symptoms are more prevalent in females as compared to males (e.g., Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). Additionally, there is literature to suggest that relational aggression is more

typical of female aggressors (Crick & Grotpeter, 1995, 1996; Grotpeter & Crick, 1996; Crick & Werner; 1998). Failure to detect gender differences may again reflect the bias in the age distribution of the included sample. For example, literature suggests that prior to the age of 12, males and females demonstrate similar levels of depression, social phobia, and substance use disorders. After the age of 12, however, rates of all three symptom clusters increase for females, whereas only substance use disorder rates increase for males (Costello, et al., 2003). Provided that 83% of the sample was 11 or younger, the included sample may not represent an age in which gender differences can be detected. Thus, future research should examine these associations as they depend on gender across age ranges in order to fully determine how these pathways differ for male and female youth.

Limitations and Future Directions

The current study included a broad age range, in addition to a significant bias towards children under the age of 11. Several limitations regarding age should be noted. First, age was examined as a continuous variable due to issues related to power and sample size. Although age is a continuous variable, there are significant theoretical and empirical justifications for examining developmental stages during childhood and adolescence; particularly when parent and peer relationships are under consideration (Rubin, et al., 1998).

Buhrmester (1990) has used a theory of need fulfillment to describe developmental shifts that occur in friendship relationships across child development. According to this theory, developmentally salient issues dictate social needs. As developmental issues emerge, they prompt a need for new and varied sources of social input, and thus youth seek social input from their relationships in order to fulfill these needs. Therefore, previous relationships contribute to

competence in new relationships and the emergence of new relationships requires the acquisition of new competencies. Accordingly, competencies gained in the parent-child relationship influence competencies gained in friendship relationships. Prior to adolescence, children may not have gained the competencies from the parent-child relationship necessary to participate in friendship relationships in a truly intimate manner. Thus, it would be extremely informative to look at these associations across a range of ages and developmental stages. Future research should examine these associations across developmental stages, such as early childhood, middle childhood, late childhood, early adolescence, and adolescence (Buhrmester, 1990; Rubin, et al., 1998), as both parents and peers likely have different implications for adjustment across development (Buhrmester, 1990; Furman & Buhrmester, 1985, 1992).

Second, although the included measure of parental psychological control (PCS-YRS) has been used with children as young as 9 years of age (Gaertner, et. al; 2010), children's perceptions of psychologically controlling parenting may differ across ages. Because the included sample encompassed a broad range of ages, it would have been informative to include a confirmatory factor analysis to determine the appropriateness of this measure of psychological control across age groups prior to examining the proposed models. The included sample did not provide the statistical power necessary to conduct these analyses (Kline, 2005), and thus these analyses were not included. Future research would benefit from conducting this analysis prior to examining the proposed models. Similarly, children provided reports of both maternal and paternal psychological control using the PCS-YSR. It is important to note that this sample consisted of a majority of children that do not live in the home with their biological father (87%). The emotional influence of father absence may have confounded or contributed in a meaningful

manner to reports of paternal psychological control and internalizing symptomology. Therefore, it would be informative to examine father absence more thoroughly as a factor both in child report of paternal psychological control and as either a potential mediating or moderating factor in these associations.

Third, the current research included all child-reported measures of observed study variables. While children are understood to be better informants of their internalizing symptomology (e.g., De Los Reyes & Kazdin, 2005), parents and teachers are thought to be more accurate informants of disruptive, aggressive, and externalizing behaviors, like relational and physical aggression (Grills & Ollendick, 2002). Although staff report of physical and relational aggression was collected, these measures were not correlated, as would be expected, with internalizing symptoms and parental psychological control. It may be that using a club staff member as a teacher informant impaired the validity of these measures, and thus child report was included. Future research would benefit from the inclusion of either parent or teacher report of relational and physical aggression. Moreover, the internal consistencies for the included child-reported measures of relational and physical aggression in this sample were low to adequate, suggesting children provided responses in a somewhat inconsistent manner. Future research would benefit from the inclusion of more internally consistent measures of relational and physical aggression.

Fourth, the parent-child relationship is a mutually occurring process (Bell, 1968, 1979). The same implication can be applied to friendship relationships (Bukowski, 1994). The current research included unilateral child-reported perceptions of these potentially dyadic processes (Soenens, et al., 2008). While literature suggests that children can be accurate reporters of both

their perceptions of both parental psychological control (Morris, et al., 2002) and friendship quality (Ladd & Emerson, 1984), there is still the possibility that the target individual's perceptions of their relationships are inaccurate. For example, friends may disagree on the quality of their relationship. Therefore, future research needs to explore the reciprocity of parent and friendship relationships in which both members of the dyad provide information regarding their perceptions of the relationship.

Fifth, the current methodology included cross-sectional data only. While this methodology may have been appropriate for preliminary exploration of the role of relational aggression and friendship quality in the pathway from parental psychological control to internalizing symptoms, these constructs are developmental in nature. Although short-term longitudinal data was collected as part of the broader program of research, the two month time period may not have been enough to adequately capture change in internalizing symptomology, as dependent on parental psychological control, relational aggression, and friendship quality. It may, however, be instrumental to examine these associations both over the short- and long-term in order to determine the developmental processes and changes over time.

Finally, the current study included a sample of "at-risk" and predominantly minority (86%) youth. While this has the potential to offer a contribution to a field that tends to focus on the nature of parent and friendship relationships in Caucasian, middle class children and youth (Rubin, et al., 1998), it also may serve as a limitation to the generalizability of research. Future directions of this line of investigation should also explore these associations in more racially and socio-economically balanced samples.

In conclusion, although the current study did not offer support to either proposed theoretical model examining the role parents and peers play in child internalizing symptomology, it did yield important implications for the empirical investigation of parental psychological control and child internalizing symptomology. First, this study offered an important extension to the literature by establishing relational aggression as a partial mediator in the association between parental psychological control and child internalizing symptoms. This potential target for prevention and intervention is particularly notable in an “at-risk” sample of minority youth, as these populations appear to be at increased risk for current and subsequent unfavorable psychological outcomes (Lorant, et al., 2003; Bean, et al., 2006). Second, this study yielded an interesting extension to the friendship quality literature, in that friendship quality was found to strengthen the association between problematic parenting and poor adjustment. This is an important point of future investigation, as it contributes to the growing body of literature which suggests that high quality friendships may not always be associated with favorable outcomes for children and adolescents (Rose, Carlson, & Waller, 2007; Waller & Rose, 2010; Murray-Close, et al., 2007).

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Tables

Table 1

Correlations, Means, Standard Deviations, Skewness, and Kurtosis for all Observed Variables

	1	2	3	4	5	6	7	8	9	10
1. Internalizing										
2. Maternal Psych Control	.48*									
3. Paternal Psych Control	.42*	.51*								
4. Combined Psych Control	.47*	.87*	.88*							
5. Relational Aggression	.50*	.34*	.33*	.35*						
6. Physical Aggression	.30*	.18*	.23*	.24*	.60*					
7. Friendship Quality	-.05	-.18	-.14	-.16	-.14	-.10				
8. Gender	-.06	-.16	.16	-.04	.05	-.00	.03			
9. Age	-.15	-.09	-.06	-.10	.04	.07	.12	-.03		
10. Race	.09	.08	.03	.07	.19*	.18*	-.13	-.04	-.15	
M	1.55	1.75	1.50	1.64	2.05	2.00	3.79	--	8.83	--
SD	.44	.53	.56	.48	.96	1.19	.77	--	2.43	--
Skewness	.97	.56	1.31	.77	.86	.90	-.54	--	--	--
Kurtosis	.79	-.49	.98	-.02	.22	-.25	-.12	--	--	--

Note. * $p < .05$.

Table 2

Standardized Estimates and p Values for the Hypothesized Pathways of 3-chain Mediation Model (Figure 1a.).

	Psych. Control to Internalizing		Psych. Control to Relational Agg.		Relational Agg. to Friend Qual.		Relational Agg. to Internalizing		Friend Qual. to Internalizing	
	B	<i>p</i>	B	<i>P</i>	B	<i>p</i>	B	<i>p</i>	B	<i>p</i>
Maternal	-.00	.99	.03	.80	-.07	.51	.14	.19	-.07	.42
Paternal	.09	.36	-.03	.80	-.07	.50	.15	.16	-.06	.49
Combined	-.08	.40	-.16	.09	-.02	.89	.12	.26	-.06	.49

Note. Physical Aggression, Age, Gender, and Minority Status were controlled for in all analyses.

Table 3

Standardized Estimates and p Values for the Hypothesized Pathways of Moderated Mediated Model (Figure 1b).

	Psych. Control to Internalizing		Psych. Control to Relational Agg.		Relational Agg. to Internalizing		FQXRelAgg on Internalizing		FQXPsychCon on Internalizing		FQXPsychCon on RelAgg	
	B	p	B	P	B	p	B	p	B	p	B	p
Maternal	-.16	.74	.33	.61	.49*	.04	-.47	.09	.22	.74	-.40	.63
Paternal	-.17	.76	.24	.76	.50*	.04	-.47	.09	.32	.66	-.35	.73
Combined	-.25	.54	.57	.15	.49*	.04	-.49	.08	.21	.66	-.89	.07

Note. * $p < .05$. Physical Aggression, Age, Gender, and Minority Status were controlled for in all analyses.

Table 4

Post Hoc Four Step Mediation Analysis: Pathway from psychological control to internalizing symptoms through relational aggression.

Combined Psychological Control Model	β
Parental Psychological Control to Internalizing Symptoms	.38*
Parental Psychological Control to Relational Aggression	.02*
Relational Aggression to Internalizing Symptoms	.24*
Psych. Control, controlling for Relational Agg., to Int. Symptoms	.30*
Paternal Psychological Control Model	β
Paternal Psychological Control to Internalizing Symptoms	.38*
Paternal Psychological Control to Relational Aggression	.17*
Relational Aggression to Internalizing Symptoms	.53*
Paternal Psych. Control, controlling for Relational Agg., to Int. Symp.	.30*
Maternal Psychological Control Model	β
Maternal Psychological Control to Internalizing Symptoms	.43*
Maternal Psychological Control to Relational Aggression	.23*
Maternal Aggression to Internalizing Symptoms	.53*
Maternal Psych. Control, controlling for Relational, to Int. Symptoms	.34*

Note. Age, Gender, and Minority Status were included as covariates in all models. * $p \leq .05$.

Table 5

Moderation Post Hoc Analyses for Combined Psychological Control.

	Internalizing	Relational Aggression
$R^2 = .27$		
Friendship Quality X Psych. Control	β	
Psychological Control	.46*	--
Friendship Quality	.04	--
Friendship Quality X Psychological Control	.19*	--
$R^2 = .30$		
Friendship Quality X Relational Agg.	β	
Relational Aggression	.54*	--
Physical Aggression	.01	--
Friendship Quality	.07	--
Friendship Quality X Relational Aggression	.08	--
$R^2 = .42$		
Friendship Quality X Psych. Control		β
Psychological Control	--	.17*
Friendship Quality	--	-.03
Physical Aggression	--	.54*
Friendship Quality X Psychological Control	--	.14

Note. Age, Gender, and Minority Status were included as covariates in all models. * $p \leq .05$.

Table 6

Moderation Post Hoc Analyses for Father Psychological Control.

	Internalizing	Relational Aggression
	R ² = .32	
Friendship Quality X Psych. Control	β	
Father Psych Control	.49*	--
Friendship Quality	.02	--
Friendship Quality X Father Psych Control	.33*	--
	R ² = .45	
Friendship Quality X Psych. Control	B	
Father Psych Control	--	.18*
Friendship Quality	--	-.02
Physical Aggression	--	.53*
Friendship Quality X Father Psych Control	--	.20*

Note. Age, Gender, and Minority Status were included as covariates in all models. * $p \leq .05$.

Table 7

Moderation Post Hoc Analyses for Mother Psychological Control.

	Internalizing	Relational Aggression
	$R^2 = .25$	
Friendship Quality X Psych. Control	β	
Mother Psych Control	.48*	--
Friendship Quality	.05	--
Friendship Quality X Mother Psych Control	-.01	--
	$R^2 = .42$	
Friendship Quality X Psych. Control	β	
Mother Psych Control	--	.21*
Friendship Quality	--	-.03
Physical Aggression	--	.54*
Friendship Quality X Mother Psych Control	--	.05

Note. Age, Gender, and Minority Status were included as covariates in all models. * $p \leq .05$.

Table 8

Simultaneous Moderation Analysis of Internalizing Symptoms on Friendship Quality X Psychological Control and Friendship Quality X Relational Aggression

	R ² = .40
Combined Psychological Control	β
Parental Psychological Control	.32*
Friendship Quality	.08
Relational Aggression	.41*
Physical Aggression	.01
Friendship Quality X Parental Psychological Control	.16
Friendship Quality X Relational Aggression	-.01
	R ² = .44
Paternal Psychology Control	β
Paternal Psychological Control	.35*
Friendship Quality	.06
Relational Aggression	.36*
Physical Aggression	.05
Friendship Quality X Paternal Psychological Control	.26*
Friendship Quality X Relational Aggression	-.02
	R ² = .42
Maternal Psychological Control	β
Maternal Psychological Control	.34*
Friendship Quality	.10
Relational Aggression	.44*
Physical Aggression	.03
Friendship Quality X Maternal Psychological Control	-.03
Friendship Quality X Relational Aggression	.08

Note. Age, Gender, and Minority Status were included as covariates in all models. * $p \leq .05$.

Table 9

Moderating Effects of Age.

Combined Psychological Control Model	β
Psychological Control X Age to Internalizing Symptoms	-.03
Psychological Control X Age to Relational Aggression	-.01
Relational Aggression X Age to Internalizing Symptoms	.31
Psych. Con. X Age, control for Rel. Agg. X Age, to Int. Symp.	-.02
Father Psychological Control Model	β
Psychological Control X Age to Internalizing Symptoms	-.03
Psychological Control X Age to Relational Aggression	-.05
Relational Aggression X Age to Internalizing Symptoms	-.02
Psych. Con. X Age, control for Rel. Agg. X Age, to Int. Symp.	.01
Mother Psychological Control Model	B
Psychological Control X Age to Internalizing Symptoms	-.03
Psychological Control X Age to Relational Aggression	.02
Relational Aggression X Age to Internalizing Symptoms	-.02
Psych. Con. X Age, control for Rel. Agg. X Age, to Int. Symp.	-.02

Note. * $p \leq .05$.

Table 10

Moderating Effects of Gender.

Combined Psychological Control Model	β
Psychological Control X Gender to Internalizing Symptoms	-.16
Psychological Control X Gender to Relational Aggression	.19
Relational Aggression X Gender to Internalizing Symptoms	-.10
Psych. Con. X Gen., control for Rel. Agg. X Gen., to Int. Symp.	.15
Father Psychological Control Model	β
Psychological Control X Gender to Internalizing Symptoms	-.13
Psychological Control X Gender to Relational Aggression	.13
Relational Aggression X Gender to Internalizing Symptoms	-.10
Psych. Con. X Gen., control for Rel. Agg. X Gen., to Int. Symp.	.05
Mother Psychological Control Model	B
Psychological Control X Gender to Internalizing Symptoms	-.24
Psychological Control X Gender to Relational Aggression	.03
Relational Aggression X Gender to Internalizing Symptoms	-.10
Psych. Con. X Gen., control for Rel. Agg. X Gen., to Int. Symp.	-.23

Note. * $p \leq .05$.

Table 11

Moderation Analyses by Age for Combined Psychological Control.

	Internalizing	Relational Aggression
<i>Age X Friendship Quality X Psych Control</i>	β	
Friendship Quality X Psychological Control	.17	--
Age X Psychological Control	-.10	--
Age X Friendship Quality	.01	--
Age X Friendship Quality X Psych Control	.06	--
<i>Age X Friendship Quality X Rel. Agg.</i>	β	
Friendship Quality X Relational Aggression	.11	--
Age X Relational Aggression	-.11	--
Age X Physical Aggression	.00	--
Age X Friendship Quality	.07	--
Age X Friendship Quality X Rel Aggression	-.01	--
<i>Age X Friendship Quality X Psych. Control</i>		β
Friendship Quality X Psychological Control	--	.11
Age X Psychological Control	--	-.06
Age X Friendship Quality	--	-.02
Age X Physical Aggression	--	.00
Age X Friendship Quality X Psych Control	--	.15†

Note. * $p \leq .05$. † $p \leq .10$.

Table 12

Age X Friendship Quality on Relation between Maternal and Paternal Psychological Control on Relational Aggression.

	Relational Aggression
<i>Maternal Psychological Control</i>	β
Friendship Quality X Maternal Psychological Control	.05
Age X Maternal Psychological Control	-.03
Age X Friendship Quality	-.02
Age X Physical Aggression	.01
Age X Friend Quality X Maternal Psychological Control	.18*
<i>Paternal Psychological Control</i>	β
Friendship Quality X Paternal Psychological Control	.20*
Age X Paternal Psychological Control	-.07
Age X Friendship Quality	-.02
Age X Physical Aggression	.02
Age X Friendship Quality X Father Psych Control	-.02

Note. * $p \leq .05$.

Table 13

Moderation Analyses by Gender for Combined Psychological Control.

	Internalizing	Relational Aggression
<i>Gen X Friendship Quality X Psych Control</i>	β	
Friendship Quality X Psychological Control	.19*	--
Gender X Psychological Control	-.02	--
Gender X Friendship Quality	.01	--
Gen X Friendship Quality X Psych Control	.01	--
<i>Gen X Friendship Quality X Rel. Agg.</i>	β	
Friendship Quality X Relational Aggression	.10	--
Gender X Relational Aggression	-.11	--
Gender X Physical Aggression	.20	--
Gender X Friendship Quality	-.01	--
Gen X Friendship Quality X Rel Aggression	.06	--
<i>Gen X Friendship Qual. X Psych. Control</i>		β
Friendship Quality X Psychological Control	--	.15
Gender X Psychological Control	--	.04
Gender X Friendship Quality	--	.02
Gender X Physical Aggression	--	-.05
Gen X Friendship Quality X Psych Control	--	.07

Note. * $p \leq .05$.

Figures

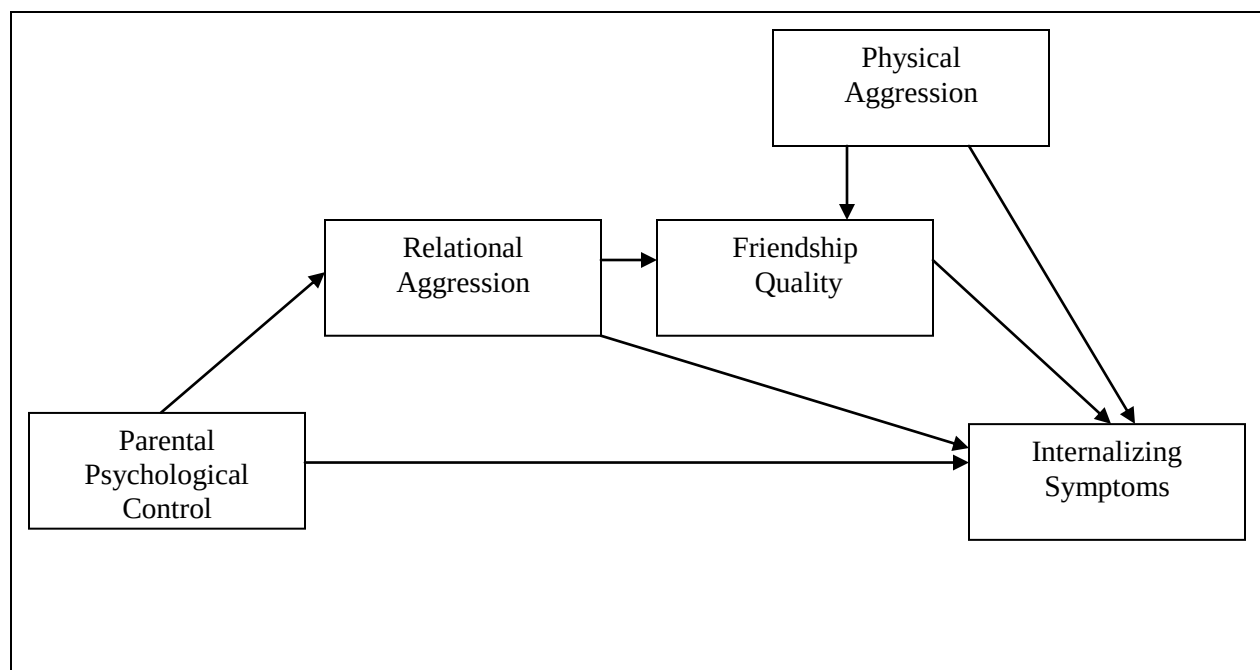


Figure 1a. Proposed 3-chain meditation model.

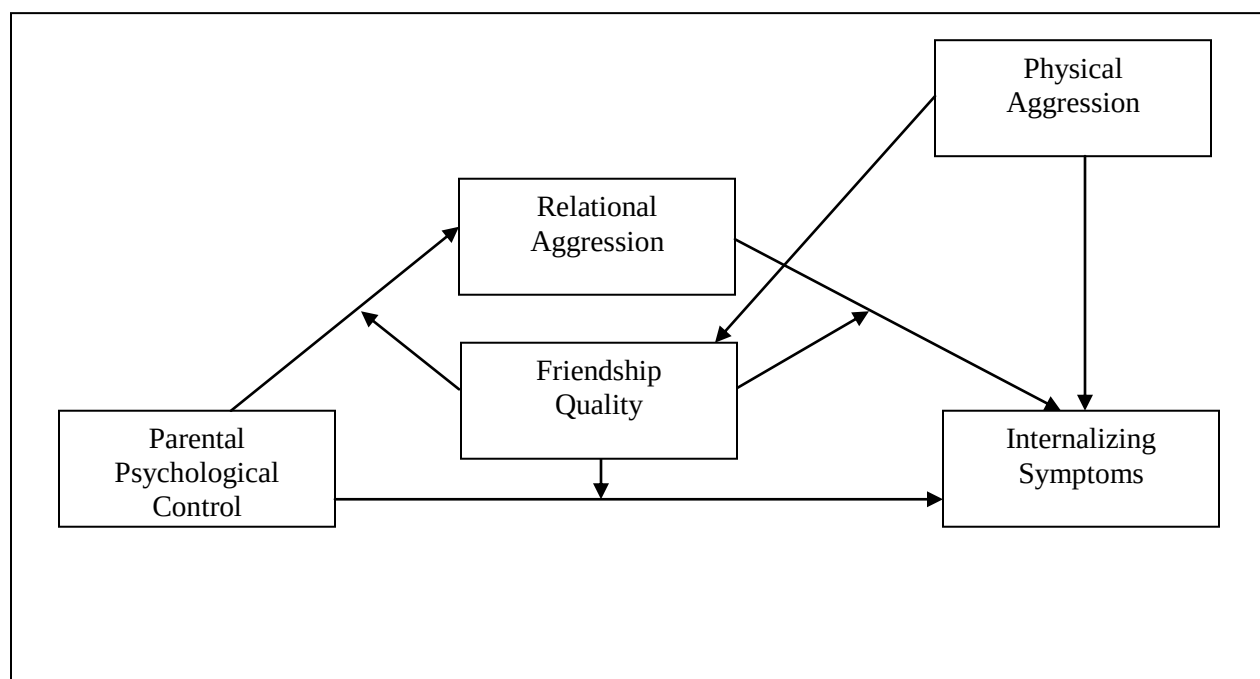


Figure 1b. Proposed moderated meditated model.

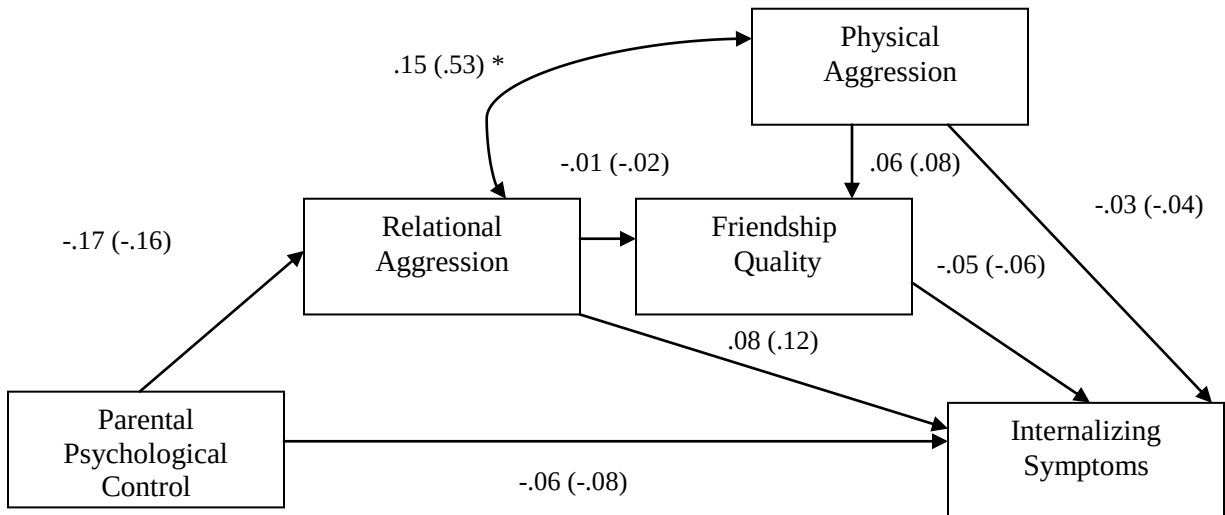


Figure 2. Unstandardized and standardized (noted in parentheses) parameter estimates for hypothesized study variables included in the 3-chain mediation model.

Note. * $p < .05$. Standardized parameter estimates are noted in parentheses.

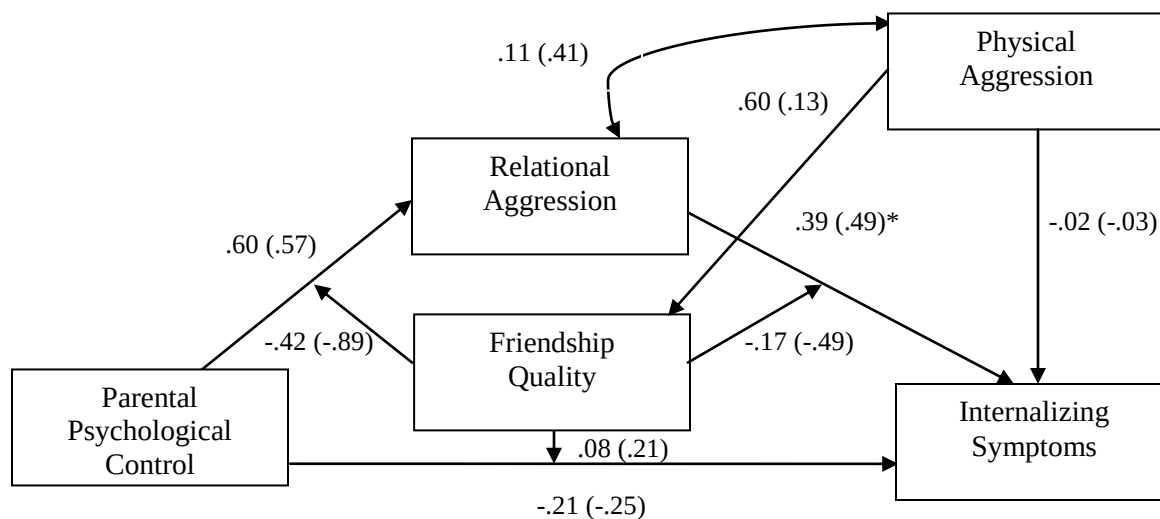


Figure 3. Unstandardized and standardized (noted in parentheses) parameter estimates for hypothesized study variables included in the moderated mediated model.

Note. * $p < .05$. Standardized parameter estimates are noted in parentheses.

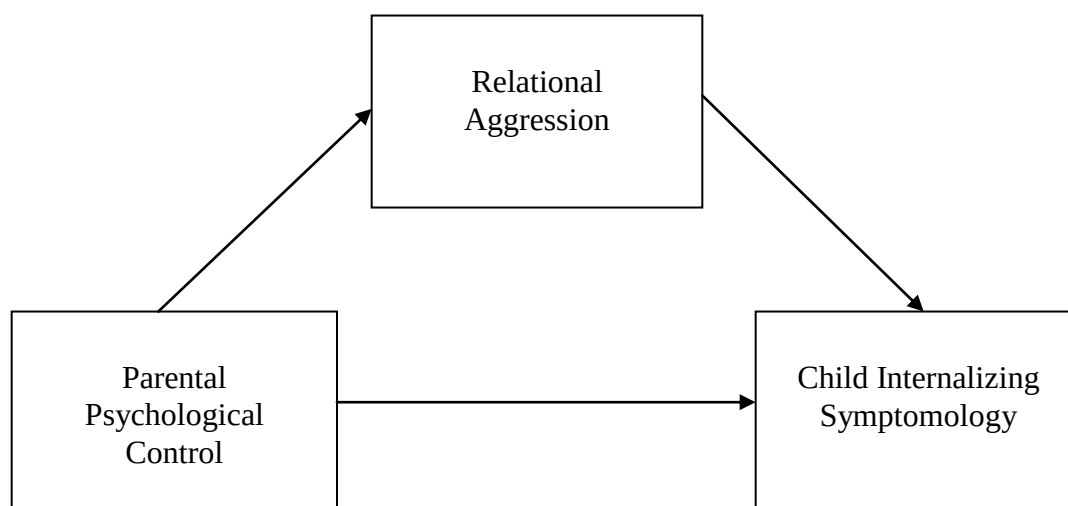


Figure 4. Post hoc 2-chain mediation model.

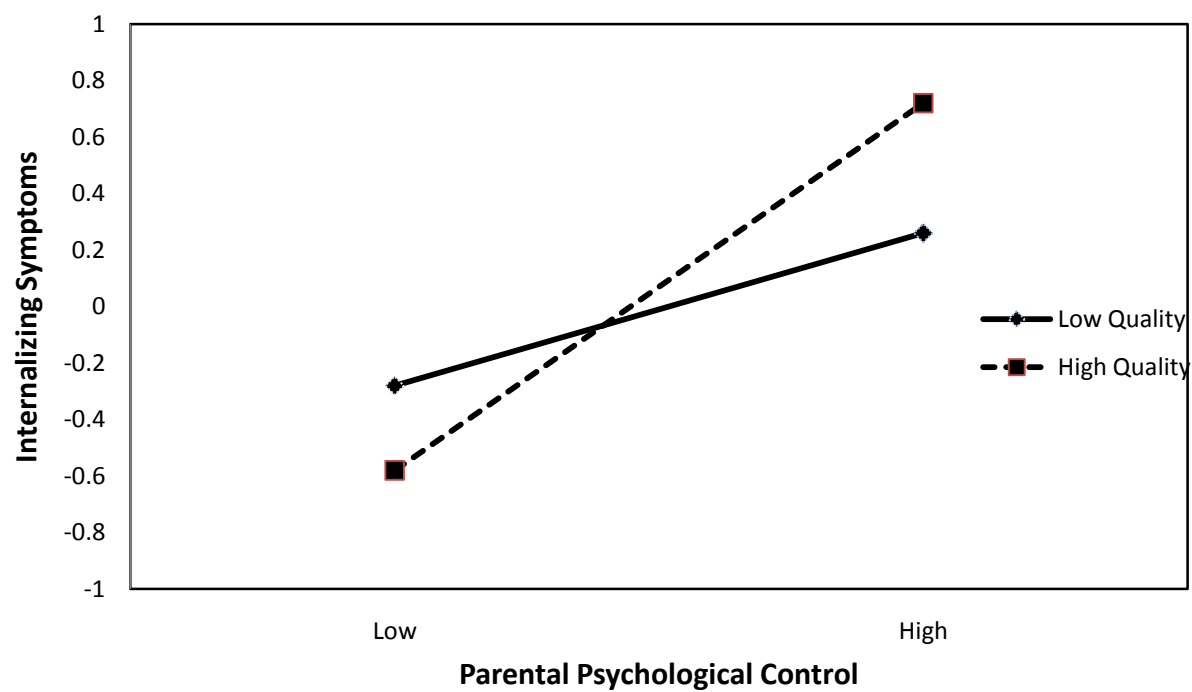


Figure 5. Parental psychological control X friendship quality on child internalizing symptoms.

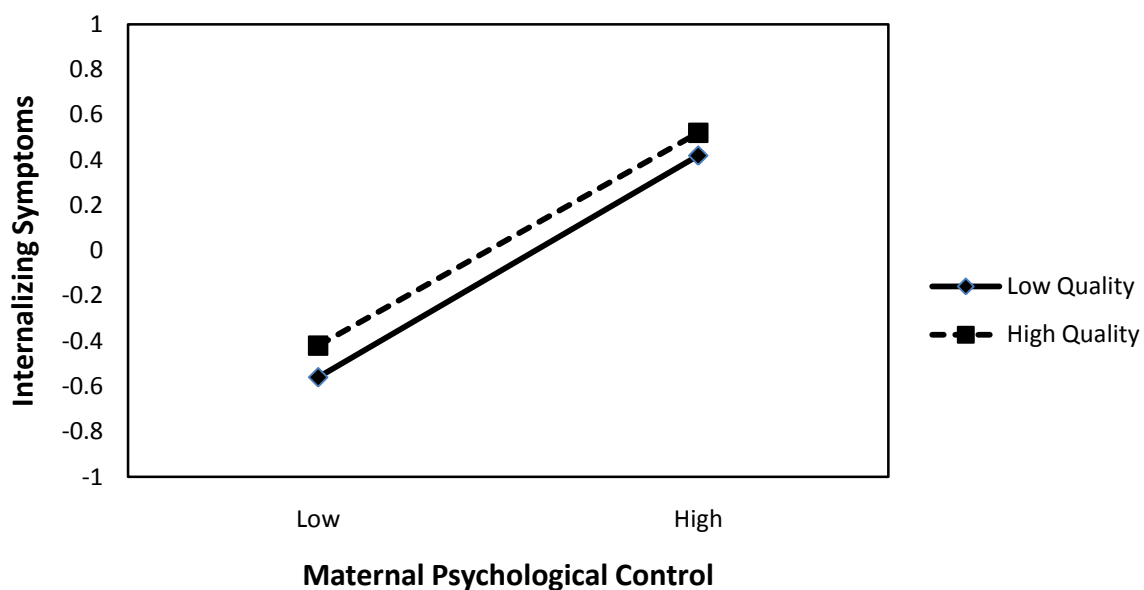


Figure 6a. Maternal psychological control X friendship quality on child internalizing symptoms.

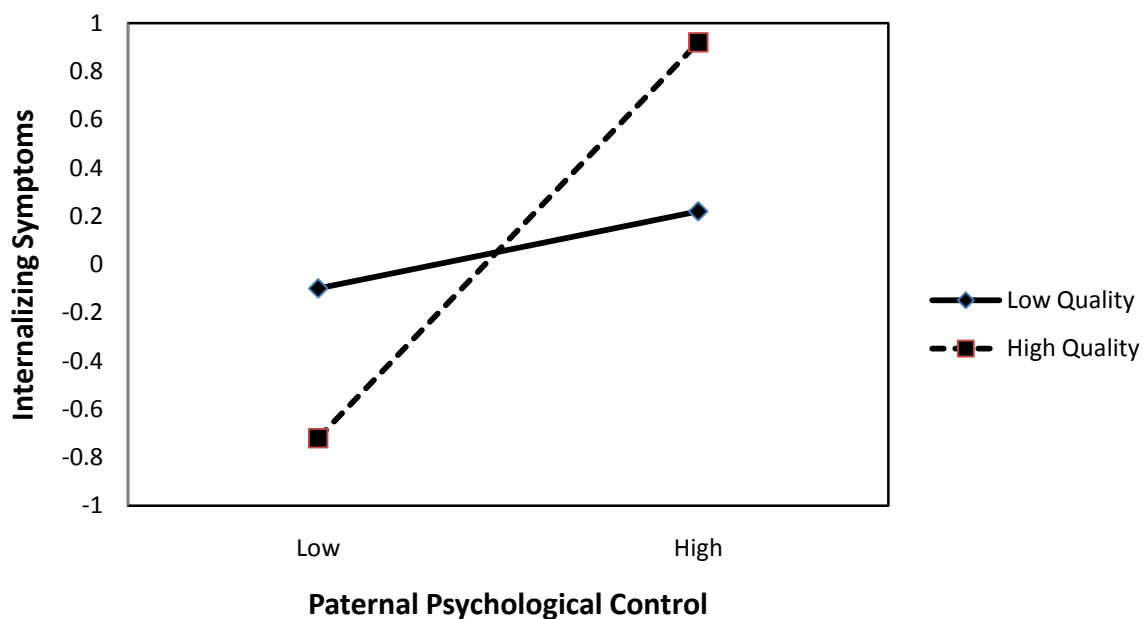


Figure 6b. Paternal psychological control X friendship quality on child internalizing symptoms.

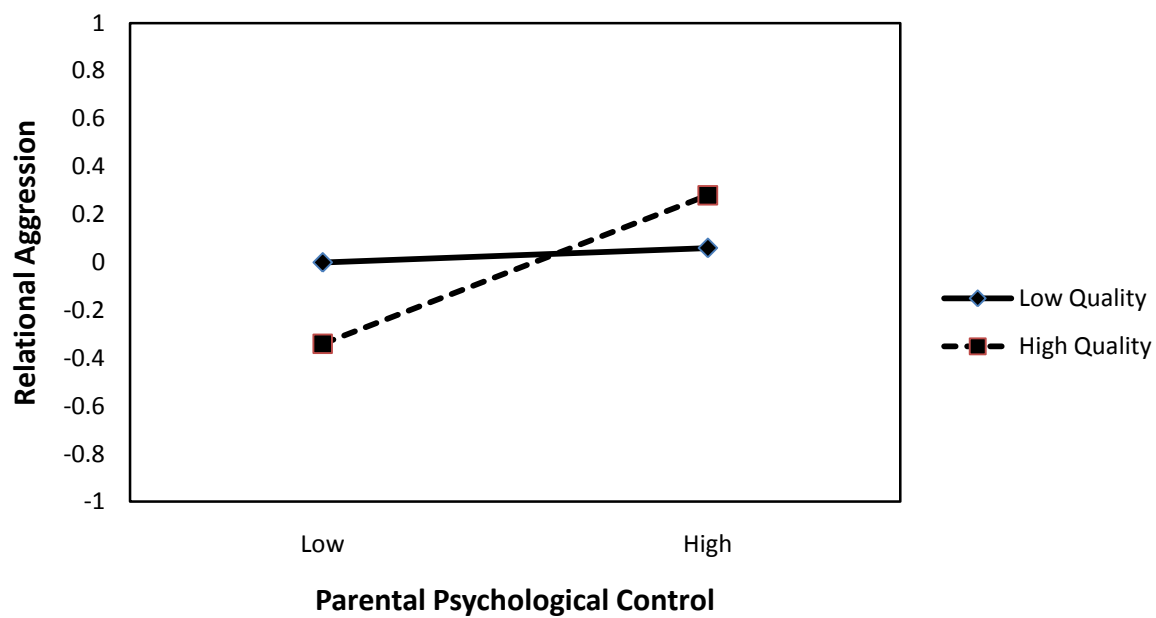


Figure 7. Parental psychological control X friendship quality on relational aggression.

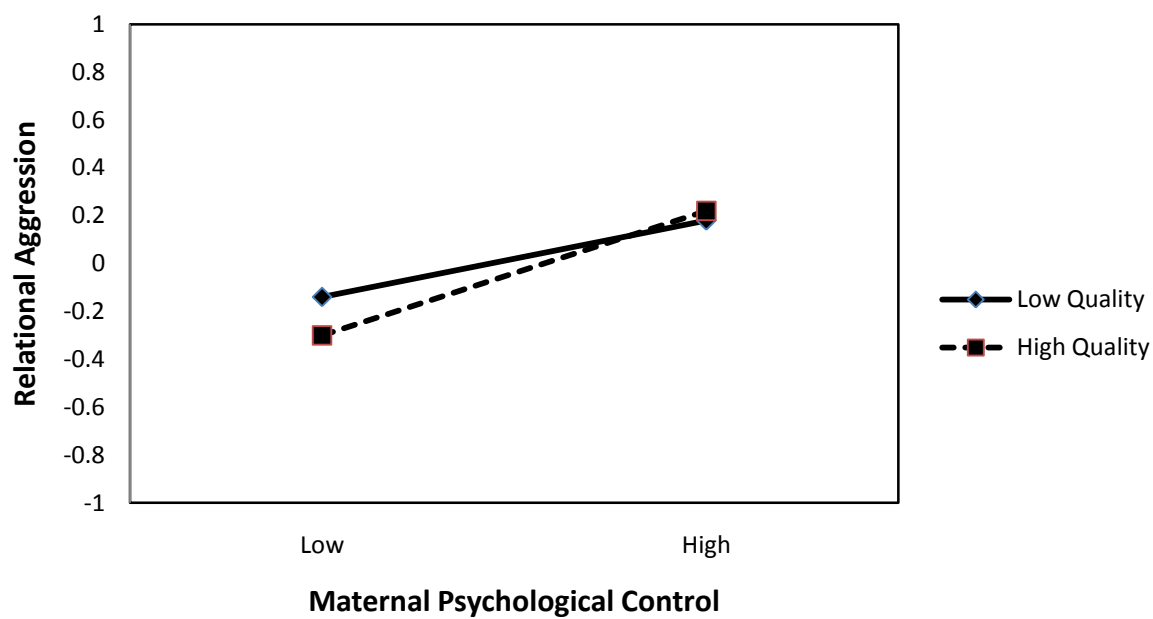


Figure 8a. Maternal psychological control X friendship quality on relational aggression

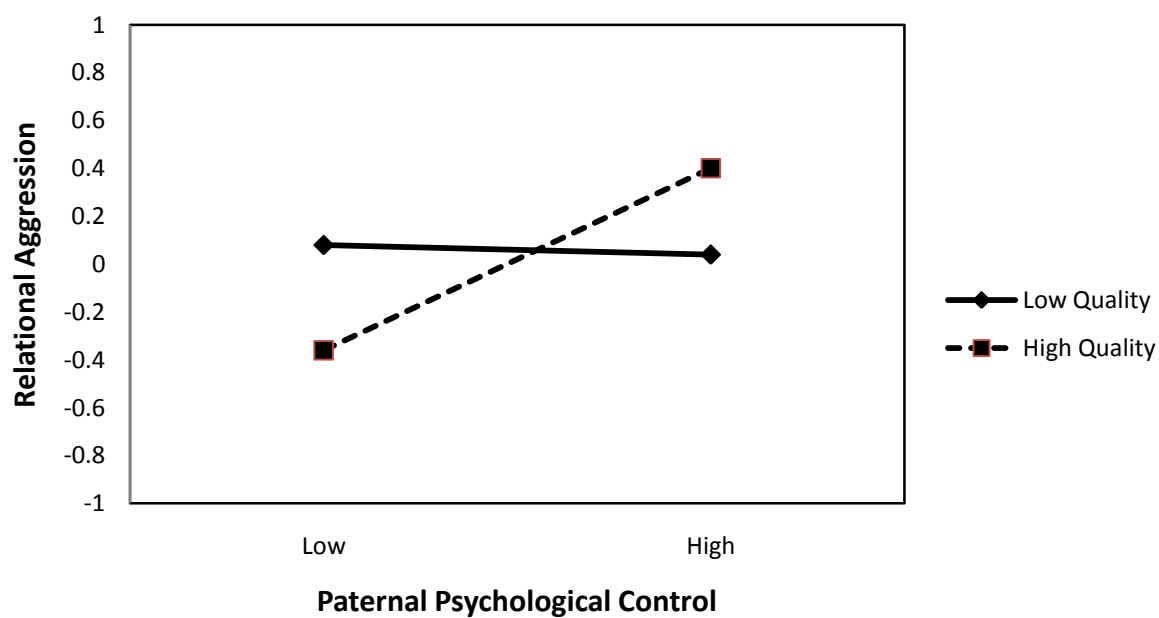


Figure 8b. Paternal psychological control X friendship quality on relational aggression.

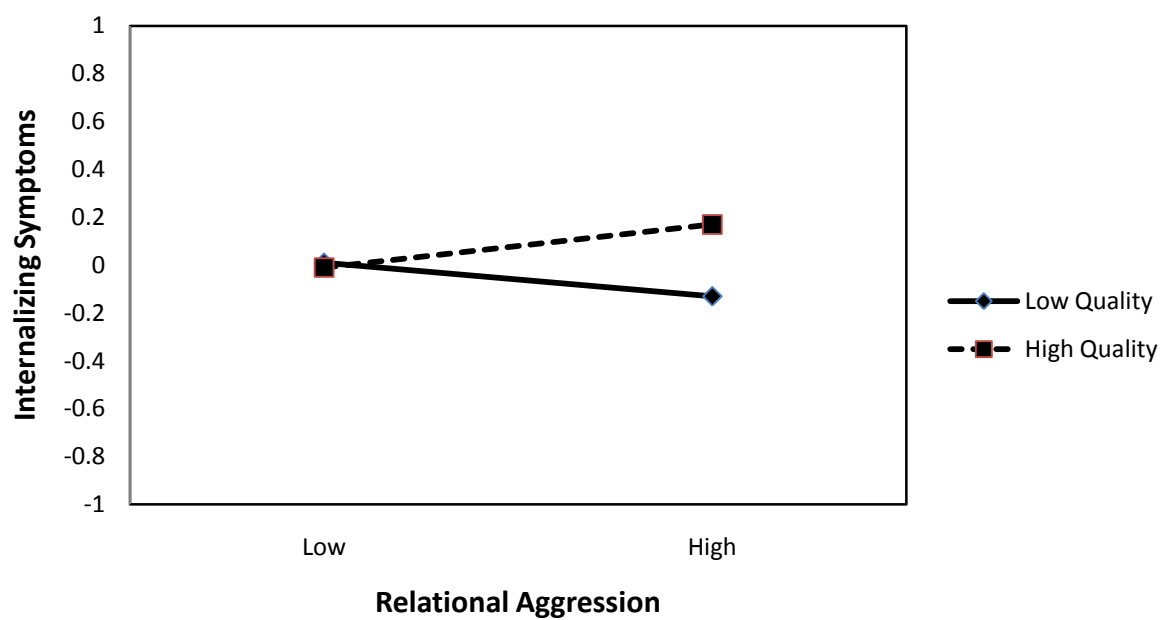


Figure 9. Relational aggression X friendship quality on internalizing symptoms.

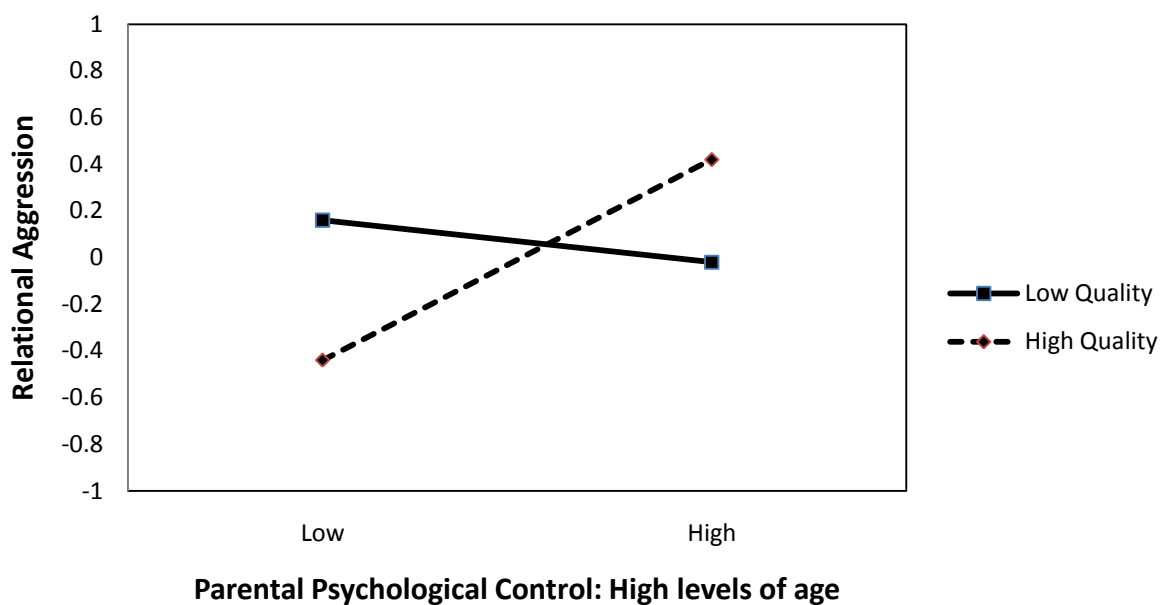


Figure 10a. Parental psychological control X friendship quality on relational aggression at high levels of age.

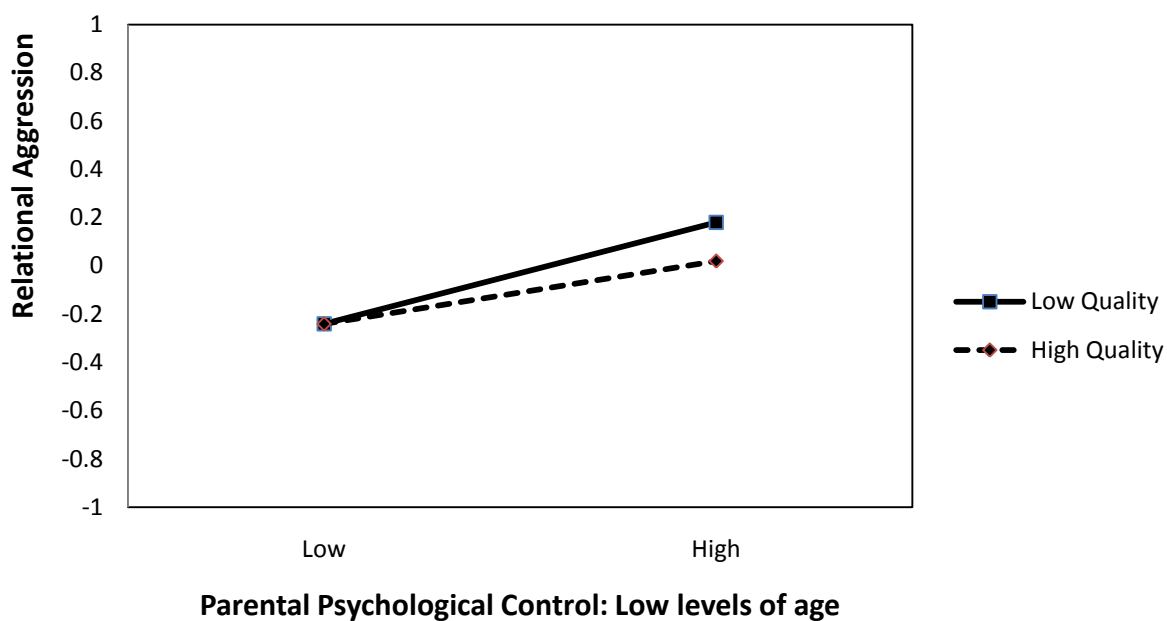


Figure 10b. Parental psychological control X friendship quality on relational aggression at low levels of age.

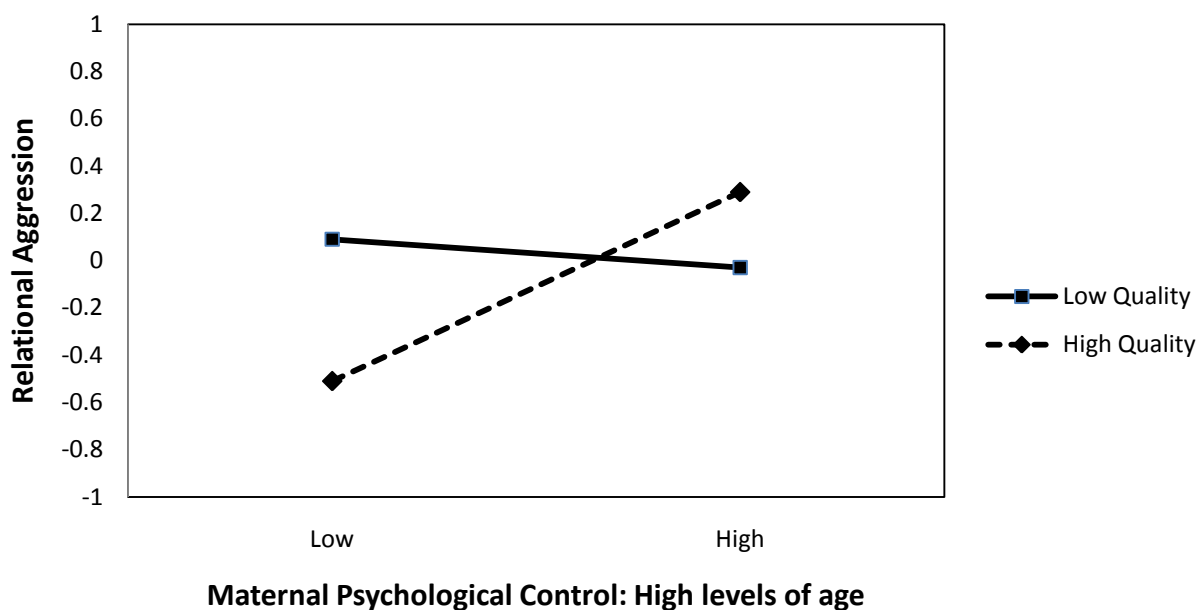


Figure 11a. Maternal psychological control X friendship quality on relational aggression at high levels of age.

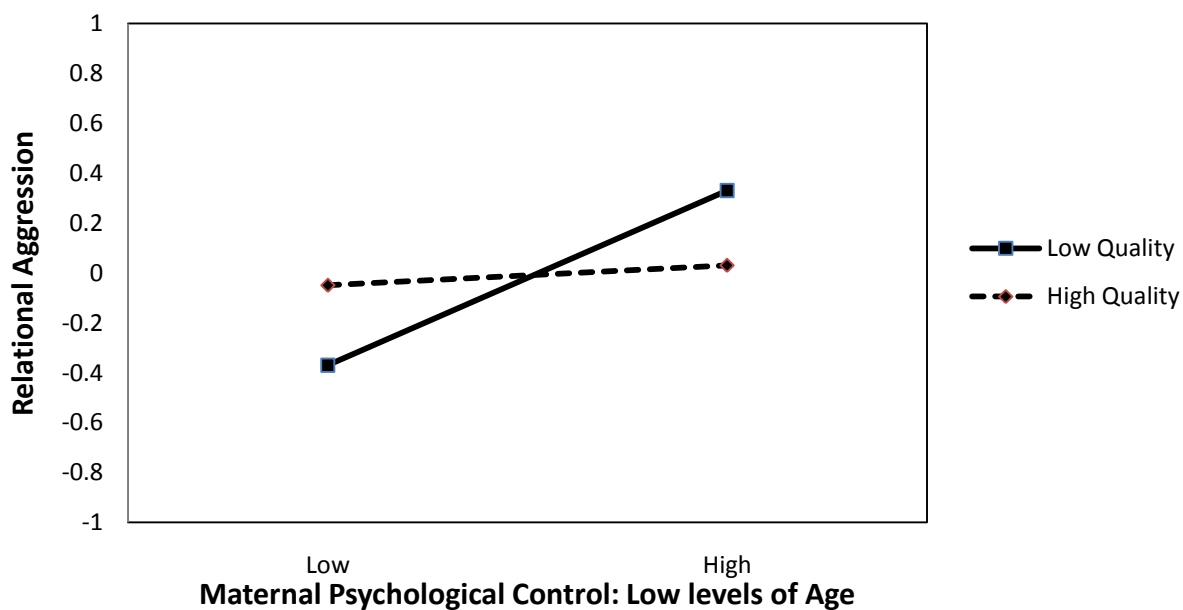


Figure 11b. Maternal psychological control X friendship quality on relational aggression at low levels of age.

Appendices

Appendix A

Internalizing Subscale of Youth Self Report
(Achenbach & Rescorla, 2001)

*Below is a list of items that describe kids. For each item that describes you **now or within the past 6 months**, please circle the **3** if the item is **very true or often true** of you. Circle the **2** if the item is **somewhat or sometimes true** of you. If the item is **not true** of you, circle the **1**.*

1 = Not True (as far as you know); 2 = Somewhat or Sometimes True; 3 = Very True or Often True

-
10. There is very little that I enjoy
 11. I cry a lot
 12. I am afraid of certain animals, situations, or places, other than school
 13. I am afraid of going to school
 14. I am afraid I might think or do something bad
 15. I feel that I have to be perfect
 16. I feel that no one loves me
 17. I feel worthless or inferior
 18. I would rather be alone than with others
 19. I am nervous or tense
 20. I have nightmares
 21. I am too fearful or anxious
 22. I feel dizzy or lightheaded
 23. I feel too guilty
 24. I feel overtired without good reason
 25. Physical problems **without known medical cause**:
 - a. Aches or pains (**not** stomach or headaches)
 - b. Headaches
 - c. Nausea, feel sick
 - d. Problems with eyes (**not** if corrected by glasses)(describe):
 - e. Rashes or other skin problems
 - f. Stomachaches
 - g. Vomiting, throwing up
 - h. Other (describe):
 26. I refuse to talk
 27. I am secretive or keep things to myself
 28. I am self-conscious or easily embarrassed
 29. I am too shy or timid
 30. I don't have much energy
 31. I am unhappy, sad, or depressed
 32. I keep from getting involved with others
 33. I worry a lot

Appendix B

Psychological Control Scale, Youth Self Report (PCS-YSR)
(Barber, 1996)

Items rated on the following items using the following 3-point scale:

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

My Mother (Father) is a person who...

Mother Father

1. _____ is always trying to change how I feel or think about things
 2. _____ changes the subject whenever I have something to say
 3. _____ often interrupts me
 4. _____ blames me for other family members' problems
 5. _____ brings up past mistakes when s/he criticizes me
 6. _____ is less friendly with me if I do not see things her/his way
 7. _____ will avoid looking at me when I have disappointed her/him
 8. _____ if I have hurt her/his feelings, stops talking to me until I please her/him
- Again

Appendix C

Children's Social Behavior Scale – Self Report (CSBS-S)
(Crick, 1995)

We are interested in how kids get along with one another. Please think about your relationship with other kids and how often you do these things while you're with them.

1 = never, 2 = almost never, 3 = sometimes, 4 = almost all the time, 5 = all the time

Relational Aggression:

1. Some kids tell lies about a classmate so that the other kids won't like the classmate anymore. How often do you do this?
2. Some kids try to keep certain people from being in their group when it is time to play or do an activity. How often do you do this?
3. When they are mad at someone, some kids get back at the person by not letting the person be in their group anymore. How often do you do this?
4. Some kids tell their friends that they will stop liking them unless the friends do what they say. How often do you tell friends this?
5. Some kids try to keep others from liking a classmate by saying mean things about the classmate. How often do you do this?

Physical Aggression:

1. Some kids hit other kids at school. How often do you do this?
2. Some kids push and shove other kids at school. How often do you do this?

Appendix D

Friendship Quality Questionnaire (FQQ)
(Parker & Asher, 1993)

Please answer the following questions about your best friend using the following scale:

1 = not at all true, 2 = a little true, 3 = somewhat true, 4 = pretty true, 5 = really true

1. My best friend makes me feel good about my ideas
2. My best friend tells me I am good at things
3. My best friend and I make each other feel important and special
4. My best friend and I make up easily when we fight
5. My best friend and I get over our arguments really quickly
6. My best friend talk about how to get over being mad at each other
7. My best friend and I argue a lot
8. My best friend and I fight a lot
9. My best friend and I get mad a lot
10. My best friend helps me so I can get done quicker
11. My best friend help each other with school work a lot
12. My best friend gives advice with figuring things out
13. My best friend and I always sit together at lunch
14. My best friend and I always pick each other as partners for things
15. My best friend and I always play together at recess
16. My best friend and I always tell each other our problems
17. My best friend and I talk about things that make us sad
18. I talk to my best friend when I am mad about something that happened to me

Vita

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