

The Role of Friendship for Adolescent Development in African American Youth

by

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## Abstract

Friendship quality was examined longitudinally in 140 African American adolescents from 6<sup>th</sup> to 10<sup>th</sup> grades. Three studies explored different questions related to friendship quality: how friendship quality develops, how friendship quality and friendship influences interact on risky behavior, and whether friendship quality acts as a protective factor against perceived racial discrimination on risky behavior. Girls reported higher friendship quality across all four time-points from 6<sup>th</sup> to 10<sup>th</sup> grades. Fewer gender differences were found in 10<sup>th</sup> grade, which suggests a closing of the gap later on in high school. Piecewise hierarchical linear models were conducted to examine the different rates of change before and after the high school transition. Girls' increasing friendship quality trajectories were found to level off from 9<sup>th</sup> to 10<sup>th</sup> grade. Boys continued to increase in friendship quality into 10<sup>th</sup> grade. These findings highlight gender differences in the development of friendship quality.

Regression analyses from the second study found marginally significant results for positive friendship quality. When the friendship was low in quality and the friend engaged in higher levels of risky behavior, girls were more likely to engage in risky behavior in 8<sup>th</sup> grade. Additionally, when the friendship was high in quality and the friend engaged in higher levels of risky behavior, girls' risky behavior increased slightly from 6<sup>th</sup> to 8<sup>th</sup> grade. These results suggest that low friendship quality is more detrimental than high friendship quality when the girl's best friend is engaging in risky behavior.

Regression analyses from the third study revealed significant findings in boys for the interaction between positive friendship quality and perceived discrimination. No significant findings were found for girls. For boys, positive friendship quality, guidance, and validation were found to protect against the negative effect of perceived discrimination on risky behavior. These results suggest that for boys, positive friendship quality is important in providing care and support when they are faced with racial discrimination. These findings highlight gender differences in the development of friendship quality and the benefits of friendships as well as socialization versus selection effects. Future research and preventative measures against risky behavior in African American adolescents are discussed.

## Chapter I

### Friendship Through the Lens of Empirical Research

Friendship has been recognized as an important part of adolescence that fosters social and emotional growth and can serve as a critical context for intimacy with peers (Selman, 1977; Way & Greene, 2006). Although the number of friends one has is an important predictor of well-being, there can be considerable variability in the quality of those friendships. An individual might have a number of friendships characterized by conflict, lack of intimacy, and an absence of support. Thus, it is important to examine the quality of friendships. This can be understood by studying the various dimensions of quality of friendships. It is important to note that the term “quality” is not used in an evaluative way to denote good or bad friendships, but as a reflection of a range of characteristics of a friendship.

#### Dimensionality

Studying the different dimensions of adolescents’ friendships is important because each dimension of friendship quality may develop and change at different rates or may stay stable over time. Friendship quality has generally been defined as the satisfaction each partner receives from a relationship (Aboud & Mendelson, 1996). However, more detailed and comprehensive conceptions of quality have been defined by looking at friendship quality as consisting of five to six dimensions of social and



emotional resources that can be gained from having a high quality friendship. These dimensions reflect positive and negative aspects of friendships (Berndt & Perry, 1986; Bukowski, Hoza, & Boivin, 1994; Grotzinger & Crick, 1996; Parker & Asher, 1993). Typically included are play or companionship between friends, intimacy, help/support, and conflict.

Friendship quality has been studied in different ways (Berndt & Perry, 1986; Bukowski, Hoza, & Boivin, 1994; Grotzinger & Crick, 1996; Parker & Asher, 1993). Some researchers are interested in examining one dimension of friendship quality, such as conflict resolution (Laursen, 1993; Laursen, Bukowski, Aunola, & Nurmi, 2007; Laursen & Collins, 1994), whereas others examine friendship quality in multiple dimensions, positive and negative (Parker & Asher, 1993). Research shows that the multiple dimensions relate to psychological adjustment differently. For example, it has been shown that positive friendship quality, such as more support from friends, influences lower internalizing behaviors such as loneliness and depression (Crick & Ladd, 1993; Parker et al., 1996; Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006; Pittman & Richmond, 2008). On the other hand, more conflict between friends, such as victimization, harassment, and teasing, has been shown to influence higher internalizing and externalizing behaviors (Underwood, 2002) as well as academic adjustment problems (Kochenderfer & Ladd, 1996).

Most measures of friendship quality include at least five different subscales. For example, Berndt and Perry (1986) separated friendship quality into six dimensions: play, pro-sociality, intimacy, loyalty, conflict, and attachment, whereas Bukowski et al. (1994) separated friendship quality into five dimensions: companionship, conflict, help,

security, and closeness. Ladd, Kochenderfer, and Coleman (1996) used the Friendship Features Interview for Young Children, which examines friendship quality in five components: validation, aid, disclosure of negative affect, exclusivity, and conflict. The majority of these dimensions tap into similar constructs. For example, play is analogous to companionship while intimacy is analogous to closeness.

Table 1 displays the dimensions of five measures of friendship quality (Berndt & Perry, 1986; Bukowski, Hoz, & Boivin, 1994; Grotperter & Crick, 1996; Parker & Asher, 1993; Ladd & Kochenderfer, & Coleman, 1996). Berndt and Perry (1986) conducted interviews with children in 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup> and 8<sup>th</sup> grade students to assess perceptions of social support. Six features of friendships were determined from previous research on child and adult relationships: play, prosocial behavior, intimacy, loyalty, attachment and/or self-esteem enhancement, and conflict. Play addressed whether the child spent free time with their friend; prosocial behavior addressed sharing with their friend; intimacy addressed whether the child talked about problems in school with their friend; loyalty addressed whether the child picked their friend as a partner in school; attachment and/or self-esteem enhancement addressed whether the friend cheered him/her up if sad or upset; and conflict addressed whether the child ever got into fights with their friend. Bukowski, Hoza, and Boivins' (1994) Friendship Qualities Scale adapted Berndt and Perrys' (1986) interview into a pencil and paper measure and determined by factor analysis a five-dimensional measure (companionship, conflict, help, security, and closeness). What differed in this measure was the inclusion of conflict resolution in the security dimension. Security referred to both being a reliable and intimate friend as well as being able to resolve conflicts with each other. Parker and Ashers' (1993) Friendship Quality

Questionnaire included similar dimensions. However, intimacy and conflict resolution were separated out into separate dimensions to make a total of six dimensions: companionship and recreation, validation and caring, help and guidance, intimacy, conflict resolution, and conflict. Grotmeter and Crick (1996) were interested in the aggression aspects of friendships as well. For example, they noted that although intimacy in a friendship can be positive, it can also be used for aggression in sharing personal information of their best friends with others and to gain control of their friends. To do this, they built on these previous measures of friendship quality and added aggression dimensions, exclusivity, and separated out intimacy into intimate with friends and intimate with others. Ladd, Kochenderfer, and Coleman (1996) were interested in younger children and through interviews with 82 kindergartners found five subscales of friendship quality (validation, aid, disclosure of negative affect, conflict, and exclusivity).

Overall, it is apparent that friendship quality research concurs that constructs regarding help, conflict, and intimacy are important aspects to study. It has also been suggested that negative and positive features of friendships should be analyzed separately, given that positive and negative features become independent in adolescence (Berndt & Keefe, 1996). Parker and Ashers' (1993) measure of friendship quality is particularly helpful in determining both developmental changes and differences in the benefits across dimensions because it taps into multiple dimensions of positive features of friendships. Therefore, the current studies highlight this multi-dimensional aspect of friendship quality by taking into account both positive and negative features of friendships.

Development from Childhood to Adolescence

Early friendships begin between 18 and 36 months of age (Scheider, 2000). Friends at this age base the significance of their friendship on superficial similarities in preferences and shared affect. Children's concepts of friendships begin with physical proximity and play. Developmentally, friendships become more reciprocal and intimate (Shantz, 1983). Despite the fact that these early friendships lack emotional and social quality, young children are able to acquire important social skills (Howes, 1996) as well as moral reasoning (Piaget, 1932) through these relationships.

Cooperation in close relationships is necessary for development of cognitive skills such as communication between friends, creative play, and working together to solve problems (Hartup, 1998; Vygotsky, 1978). However, conflict in friendships promotes developmental change as well (Piaget, 1932). When friends discuss differences in opinion, they are more likely to end up with a better understanding of other people's perspectives and thus become more cognitively aware. Both Piagetian and Vygotskian perspectives can work together to explain cognitive advances gained from friendships (Rubin, Bukowski, & Parker, 2006).

Mutual understanding, self-disclosure, and trust begin to emerge as important components of a close friendship as age increases (Newcomb & Bagwell, 1995). As children move into middle childhood, friendships mature into a mutual understanding of emotion and feelings. Children begin to understand their feelings may differ from those of others in certain ways as their cognitive and social skills mature (Brown, 1981; Selman, 1980). This understanding helps to develop a stronger bond between friends.

Friendship quality has been shown to increase from middle school to high school (Allen & Land, 1999) and the need to share intimacy and overall companionship becomes

increasingly powerful from childhood to adolescence (Allen, Porter, McFarland, & Marsh, 2005). Additionally, conflict in late adolescence has been shown to occur less frequently compared to early adolescence (Furman & Buhrmester, 1992). Overall, more longitudinal research needs to be done on the development of both positive and negative friendship quality from early to late adolescence (De Goede et al., 2009).

In comparison to their younger counterparts, adolescents report expecting less support from their parents and more support from their friends (Furman & Buhrmester, 1992). Early adolescents are inclined to define friendships in overly exclusive terms, whereas adolescents understand that granting friends some autonomy and independence creates a stronger friendship (Parker, Low, Walker, & Gamm, 2005). In order to maintain a stronger, higher quality bond, adolescents emphasize the importance of intimacy and self-disclosure in friendships (Parker & Gottman, 1989). Intimacy plays a primary role with friends and the attempt to understand different social identities are aided by these close relationships (Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006).

It is expected that the number of conflicts and conflict resolution will increase developmentally, particularly from middle school to high school, since conflict is mostly likely to occur when friendships are more intimate. In addition to the development of intimacy, adolescents' cognitive advances make them capable of more sophisticated conflict resolution strategies (Laursen & Collins, 1994). Therefore, the increase in conflict and intimacy indicates the likelihood of the development of conflict resolution as children and adolescents mature. Overall, there is a significance of friendships across the lifespan that promotes cognitive development through cooperation, conflict, and conflict

resolution. These skills prove important later on in life when adolescents enter the workforce, college, and start families.

### Gender Differences in Friendship Quality

There have been many studies of gender differences in friendship quality (Parker & Asher, 1993; Simpkins et al., 2006). Girls' friendships, on average, tend to be more intimate, whereas boys' friendships tend to be more stable (Underwood, 2007) and involve more conflict (De Goede et al., 2009), possibly due to boys' competitive nature. Middle school girls report higher intimacy, self-disclosure, and companionship compared to middle school boys (Parker & Asher, 1993). This may be because girls' friendships tend to be more exclusive (Azmitia, Kamprath, & Linnet, 1998).

Gender differences have also been found in conflict resolution. Thayer, Updegraff, & Delgado (2008) found in a sample of Mexican American adolescents, that girls were more likely to use solution-oriented strategies (e.g. My friend and I work together to resolve disagreements) and less control-oriented strategies (e.g. I keep arguing until I get my way when my friend and I disagree) than boys. Solution-oriented strategies are closely related to friendship intimacy. In other words, friends who share more with each other are more likely to be considerate of how the other friend feels when they get into an argument and are therefore less likely to be negative when resolving conflict.

Developmentally, social-cultural factors may influence the rate of development of friendship quality. Way and Greene (2006) found that friendship quality in adolescent boys increased at a sharper rate than adolescent girls over time. The difference in the rate of increase may be because boys have more room to grow in quality compared to girls. Gender differences in the normative development of the multiple dimensions of

friendship quality have not been examined extensively (De Goede et al., 2009) and very few studies of the development of friendship quality in African Americans have been conducted. Since it is not clear whether friendship quality in African Americans differs compared to other students, the present study will add to previous literature on friendship quality development.

### Racial Differences in Friendship Quality

There has been limited research examining friendship quality in African Americans. Most research has been conducted on primarily White populations (Way & Chen, 2000; Way & Pahl, 2001). The few studies that exist suggest that African Americans' friendships may be more intimate and supportive than those of other racial and ethnic groups. Therefore, friendship quality may develop differently in African American youth. African American girls have been shown to report higher friendship support than Asian American girls and perceived friendship quality in African American adolescents has also been shown to increase more rapidly compared to Asian American adolescents (Way & Chen, 2000). In an older sample of African American women, a qualitative study found that trust and "being a good friend" was emphasized in the meaning of a friendship and African American women were more likely to help their friends when they faced financial troubles and deaths compared to White women (Greif & Sharpe, 2010). Although not many comparative studies have been conducted on African American boys, Greif (2009) found that they reported sharing their feelings as well as needing more emotional support compared to White men. In summary, these findings suggest that friendships in African Americans may be more intimate and may increase faster in quality compared to other racial groups. However, other dimensions of

friendship quality such as conflict, conflict resolution, and companionship have not been studied as extensively. Additionally, previous studies on friendship quality in minority populations have examined friendship quality as uni-dimensional and have not examined each dimension (conflict, intimacy, support, etc.) separately (Way, Cowal, Gingold, Pahl, & Bissessar, 2001). This lack of attention to the multiple dimensions of friendship quality demonstrate the need for more longitudinal research on the development of friendship quality in African American adolescents.

These studies on racial differences in friendship quality suggest possible differences in how African American youth perceive their friendships. The social context in which African American youth develop is unique in the fact that they may have negative school experiences that are tied to race as well as facing racial discrimination in and outside of school. Friendship quality may be useful to help get through these experiences during adolescence.

### Friendships as Social Support

The quality of friendships is important in understanding adolescents' perception of support. However, it is not yet clear whether the quantity or the quality of friends has more influence on overall psychological adjustment. For example, it has been found that social support can help limit the development of psychological problems by preventing stress and buffering negative outcomes after a stressor occurs (Thompson, Flood, & Goodvin, 2006). However, a lack of social support can refer to either dysfunctional and low quality relationships or social isolation. Studies on the quality of friendships have shown an association between problems with friendships and feelings of loneliness (Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006). Regarding school transitions,



Pittman and Richmond (2008) also found that across the college transition, positive changes in friendship quality were associated with lower internalizing problem behaviors. On the other hand, studies on the quantity of friendships have shown that rejected children also report more feelings of loneliness than other accepted children (Crick & Ladd, 1993; Parker et al., 1996) and elementary students without friends have been shown to be lonelier than other children with friends (Parker & Asher, 1993).

Many longitudinal studies on the influence of friendship quality on psychological outcomes have mixed findings, possibly due to differences in how friendship quality was measured across studies (Berndt & Keefe, 1995). Some studies examined friendship quality as multi-dimensional and some one-dimensional. For example, in a study that examined friendship quality as having three underlying constructs (trust, communication, and alienation), friendship quality was associated with self-worth before and after the transition to college; however the improvement of friendship quality over time was not related to self-worth (Pittman & Richmond, 2008). One study found that friendship quality had no longitudinal or bidirectional relationship with delinquency across adolescents 11-14 across a five year period (Selfhout, Branje, & Meeus, 2008). However, this study examined friendship quality as a one-dimensional positive quality construct and did not examine the negative aspect of friendship quality. Overall, supportive friendships have generally been regarded as helpful in living healthier lives (Greif, 2009).

### Friendship Selection Versus Socialization

Selection versus socialization effects may also be associated with friendship quality. Adolescents may be selective about whom they choose as friends, but they also may be socialized by their friends. Catalano and Hawkins (1996) suggest that youth

violence stems from socialization from peers that reinforce violent behavior. However, it is also likely that youth choose similar friends (i.e. other violent peers) (Hirschi, 1969). It is possible that both work together in how friends influence each other; however, the empirical results for this have been mixed (Herrenkohl, Huang, Kosterman, Hawkins, Catalano, & Smith, 2001; Knecht, Snijders, Baerveldt, Steglich, & Raub, 2010). For example, an adolescent who considers academics as a priority may choose similar friends. However, if they are already friends with friends who consider school and academics important, they may be influenced by their friends to regard academics as important. If the adolescent decides that it is not a priority, their friendship may be disrupted and the adolescent may find others who have similar interests.

### Friendships and School Transitions

Developmental transitions, including contextual changes such as school transitions, are extremely important to consider when studying developmental change (Schulenberg, Maggs, & O'Malley, 2003). The transition to high school can prove to be particularly difficult for most adolescents. This is because high schools tend to be larger in size and are more likely to use academic tracks, which may promote segregation in students (Eccles, Wigfield, & Schiefele, 1998). With a much larger school environment, the opportunity for more support in learning and academic achievement is likely to decrease (Eccles et al., 1993).

Academic achievement, academic motivation, and grades in multiple domains have been shown to decline across both the middle school and high school transition (Dotterer, McHale, & Crouter, 2009; Fredricks & Eccles, 2002; Gottfried, Flemin, & Gottfried, 2001; Shim, Ryan, & Anderson, 2008). However, there have been some differences of

the influences between the middle and high school transitions; for example, little to no significant changes are found in academic engagement and emotional well-being across the high school transition (Midgley & Maehr, 2000). Academic engagement is particularly important in high school because the environment is more likely to become competitive compared to middle and elementary school. One important influencing factor may be the increase in quality of social relationships during this period.

In addition to the decrease in academic achievement, school transitions are more likely to disrupt previous peer groups and social relationships (Seidman, Aber, Allen, & French, 1996). There is no doubt that both academics and social relationships in school are equally important, given that they are likely to influence each other (Midgley & Maehr, 2000). Unfortunately, there is limited research on the role of the high school transition on social relationships. Therefore, it is important to understand how friendship quality develops during this time of contextual and physical change.

Despite the fact that school transitions may end previous friendships, the increase in opportunities to create friendships helps to explain why friendship quality increases over time. This is mostly likely because of the high probability that friends from middle school may attend different high schools and because the addition of students from other feeder middle schools widens the pool of potential friends. Although previous friendship groups may face challenges with school transitions, students are likely to increase the level of engagement with peers after entering high school and become less engaged in school (Seidman et al., 1996). This also may be because of the developmental increase of intimacy and recreation time in friendships. These studies add to the literature on school

transitions by examining both normative change in friendship quality and how friendship quality may play a role in the adjustment during this difficult period.

### Friendships and Risky Behavior

Peer influence on risky behavior has been shown to be quite powerful (Allen, Porter, & McFarland, 2006). An adolescent who engages in delinquent behavior is more likely to have a best friend who also engages in delinquent behavior (Selfhout, Branje, & Meeus, 2008). Additionally, peer pressure and peer drug use have been associated with a higher frequency of drug use in a predominately African American sample of 10<sup>th</sup> graders (Farrel & White, 1998). For example, the smoking status of best friends has been shown to be a significant predictor of smoking in 12 to 8 year olds (Wong, Fitzhugh, Westerfield, & Eddy, 1995). Additionally, more negative peer characteristics (e.g. being in a gang, cutting class, smoking cigarettes, and drinking) have been associated with more risky behavior in 12 to 14 year olds (Hair, Park, Ling, & Morre, 2009). Although the types of behaviors best friends and peer groups engage in is important, these studies did not take into account the quality of friendships.

Very few studies have examined how friendship quality may influence risky behavior or how risky behavior may influence friendship quality. One study found that poor quality friendships have been associated with adolescents' conduct disorder and aggressive behavior (Dishion & Kavanagh, 2003). By being intimidating and hostile with their friends, adolescents with aggressive tendencies are more likely to be rejected by their peers and thus befriend those who are also aggressive and rejected by their peers. This creates a maladaptive cycle of low quality friendships. Unfortunately, adolescents who are friends with deviant peers are more likely to engage in risky behavior and drug

use (Dision, Capaldi, & Yoerger, 1999). However, research findings have been mixed on how friendship quality is related to risky behavior in adolescence. One study showed that adolescents with more supportive and higher quality friendships had less delinquent behavior (e.g. theft, vandalism, and violent acts) (McElhaney, Immele, Smith, & Allen, 2006). Another study found that problem behavior in school was influenced by perceived racial discrimination in adolescents who had negative quality friendships (Wong, Eccles, & Sameroff, 2003). However, when taking into account friendship stability and bidirectionality, perceived friendship quality did not influence adolescent delinquency from age 12 to 16 (Selfhout, Branje, & Meeus, 2008). How friendship quality is measured may be a factor in the inconsistent findings. These studies also did not examine positive and negative friendship quality separately, which may act differently in terms of protective characteristics.

It is also important to note gender differences in risky behavior. Previous research has shown that adolescent boys engage in more risky behavior compared to girls, such as drug and tobacco use (Myers, 2010) and risky driving (Rhodes & Pivik, 2011). However, Miller, Malone, and Dodge (2010) found in a sample of 7<sup>th</sup> to 12<sup>th</sup> graders that adolescent boys had a significantly higher base rate of delinquent behavior, yet girls and boys showed similar developmental trajectories and patterns in delinquent behavior across time. Therefore, how risky behavior relates to friendship quality may differ between boys and girls by age given that boys may engage in risky behavior earlier than girls.

### **Risky Behavior in African American Adolescents**

It has been suggested that African American adolescents may be at a lower or higher risk for different types of risky behavior (i.e. substance abuse, sexual behavior,

and violent behavior) compared to other racial groups. African American adolescents have been shown to engage in less substance abuse compared to White adolescents (Wallace & Muroff, 2002). Regarding risky sexual behavior, African Americans have been shown to be at a greater risk (Woods et al., 2010). It is possible that African American adolescents are protected from substance abuse because of a longer attachment to family. Family attachment may be able to protect adolescents from engaging in risky behavior. However, more research needs to be done on what may protect African American adolescents from engaging in risky behavior.

Research in this area has considered possible influencing factors on risky behavior in African American adolescents, such as working during adolescence, peer characteristics, and racial identity. For example, Bauermeister, Zimmerman, Gee, Caldwell, & Xie (2009) found that working more during adolescence leads to greater sexual activity in a sample of African American adolescents, which may in turn lead to a higher likelihood of risky sexual behavior (e.g. older sex partners, inconsistent condom use). This supported the work consequences perspective (as opposed to the work benefits perspective), which states that working during adolescence promotes more adult-related activities that the adolescent is not necessarily prepared for. Peer sexual behavior has also been shown to have an influence. The relationship between lower GPA and risky sex was shown to be mediated by risky peer norms in a sample of 13 to 19 years old African American girls (Voisin & Neilands, 2010). That is, lower GPA was linked to risky sex if their peers supported risky behaviors. Racial identity has also been shown to play a role in violent behavior in African American adolescents. If race was less central to their identity, when faced with racial discrimination, African American adolescents were more

likely to engage in violent behavior (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004). The present study adds to the literature on risky behavior in African American adolescents by examining how friendship quality plays a role in the relationship between perceived discrimination and risky behavior.

### Friendship Quality as a Buffer

Being well socialized can serve as a protective factor in development (Hartup & Stevens, 1997). High quality friendships can support positive developmental outcomes such as higher self-esteem, self-confidence, and sociability (Hartup, 1996). Additionally, greater social skills have been associated with lower levels of depression and higher levels of adaptation (Allen et al., 2005). Conversely, clinically referred children are more likely to be friendless than those who are not clinically referred (Rutter & Garnezy, 1983). Additionally, perceived discrimination is a prevalent factor in African American adolescents' lives and has been shown to influence many negative developmental outcomes such as depressive symptoms and self-esteem (Fisher et al., 2000; Greene, Way, & Pahl, 2006; Mossakowski, 2003; Seaton, 2010). Therefore, it is important to understand what may help to deter these negative outcomes from occurring.

Thus far there have not been many studies on how friendship quality may act as a protective factor against perceived discrimination. However, there have been studies on how racial socialization and racial identity can serve as protective factors. For example, Harris-Britt, Valrie, Kurtz-Costes, & Rowley (2007) found that racial socialization served as a protective factor against the influence of perceived racial discrimination on self-esteem. Additionally, a strong connection to one's ethnic group reduced the influence of perceived discrimination on academic self-concept and school achievement (Eccles,

Wong, & Peck, 2006). This suggests that additional research needs to be conducted on other positive constructs in African American adolescents that can be protective against perceived racial discrimination.

Studies on how friendships may act as a buffer against stressful experiences have not been conducted as extensively in children and adolescents as in adults (Parker, Rubin, Erath, Wojslawowics, & Buskirk, 2006); although not much research has been done in adults either. However, multiple studies have shown the benefits of having friends, especially when faced with challenging situations. Studies have shown that friendships prevent stress as well as buffer the negative effects of stress (Thompson, Flood, & Goodvin, 2006). For example, perceived support from friends was shown to be protective against the effects of emotional abuse and neglect on adult depression (Powers, Ressler, & Bradley (2009). In a study of 5<sup>th</sup> graders, friendship quality buffered against adjustment behavior problems (Waldrup, Malcolm, Jensen-Campbell, 2008). On the other hand, having no friends, or being socially isolated, has been shown to increase internalizing and externalizing behaviors in adolescents (Laursen, Bukowski, Aunola, & Nurmi, 2007).

In addition to friendships having protective characteristics, it is important to note that stress triggered by negative events may threaten already existing relationships. It has been suggested that friendship support will only act as a buffer if the friendship survives the stressor (Burndt, 1989). However, it is possible for people to discover new friendships during or after the stressor that may help to provide support. Moreover, with a stressor such as discrimination, it may be more beneficial to have friends who also have experienced similar situations. Friends who have not been exposed to discrimination



may not fully understand the emotional implications of such an experience. On the other hand, it is also possible that just having a high quality friendship and having someone who is there to provide emotional support may be sufficient to help with the influences of perceived racial discrimination.

## Conclusion

Considering the importance of friendship quality and the lack of research on peer relationships in African Americans, this study is important in understanding how these processes may differ within different cultural contexts. This project addresses three research aims related to friendship quality in African American adolescents. Each aim will be addressed using an all African American sample and will use data from the School Competence of African American High School Youth study funded by the Maternal and Child Health Bureau.

The specific aims of each study are:

1. To examine the development of friendship quality over time, across middle school and into the transition to high school (6<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, & 10<sup>th</sup> grades). Gender differences in trajectories will be examined.
2. To examine how the interaction between friendship quality and their best friend's risky behavior in 6<sup>th</sup> grade predicts the youth's risky behavior in 8<sup>th</sup> grade
3. To examine whether friendship quality acts as a protective factor against the effects of perceived discrimination on risky behavior in 8<sup>th</sup> grade controlling for 6<sup>th</sup> grade risky behavior.

Examining the different dimensions of friendship quality across development contributes to the richer understanding of friendships. The proposed study not only adds to literature on friendships in African Americans, but also explores how friendships can benefit adolescents in the face of perceived discrimination. It also addresses the question about good, higher quality friendships that may be bad influences. Therefore, this study elucidates possible healthy interventions and preventative measures to protect adolescents from possible negative developmental outcomes, such as risky behavior, through friendships.

## Chapter II

### Trajectories of Friendship Quality in African American Adolescents

Friendships play important roles in providing opportunities for learning interpersonal skills, social competence, and cooperation (Hartup, 1996; Newcomb, Bukowski, & Bagwell, 1999). Numerous studies have examined the development of friendships and the understanding of them has grown to be more complex and multi-dimensional (Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006). Because of this, normative continuities and individual trajectories in friendship quality of peer relationships are socialization issues that are currently receiving more attention, especially in minority populations. Additionally, longitudinal research in this area is necessary to understand the development of friendship quality. The current study adds to this growing body of literature in three ways. First, it takes a multi-dimensional approach considering how several components of friendship quality develop over time. Second, it examines friendship quality development over the transition to high school, a potential point of vulnerability for youth. Third, the study utilizes an African American sample, a group for whom there is very little information about normative development of friendship quality.

Studying the different dimensions of adolescents' friendships is important because each dimension of friendship quality may develop and change at different rates or may stay stable over time. Friendship quality has generally been defined as the satisfaction each partner receives from a relationship (Aboud & Mendelson, 1996).

However, more detailed and comprehensive conceptions of quality have been defined by looking at friendship quality as consisting of five to six dimensions of social and emotional resources that can be gained from having a high quality friendship. These dimensions reflect positive and negative aspects of friendships (Berndt & Perry, 1986; Bukowski, Hoza, & Boivin, 1994; Grotzinger & Crick, 1996; Parker & Asher, 1993). Typically included are play or companionship between friends, intimacy, help/support, and conflict.

The primary aim of the present study is to add to the literature on the development of friendship quality by examining how friendship quality develops over the transition to high school in African American adolescents. African American adolescents are unique in the racial experiences (i.e. racial identity development and racial discrimination) they may face. This may influence their use of friendships differently. For example, African American adolescents may rely on their friends for support with racial discrimination given that their friends may have experienced it themselves. Additionally, the social behaviors of African Americans are strongly rooted in African tradition and customs (Townsend, 1998). These important experiences, to name a few, are important to consider when examining African American adolescents' friendships and social networks.

### Aims of Present Study

The first aim of the present research is to evaluate trajectories of friendship quality over the high school transition (6<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> grades) in a sample of African American youth. The second aim of the present research is to evaluate how the different aspects of friendship quality (i.e. validation and caring, conflict and betrayal,

companionship and recreation, help and guidance, intimate exchange, and conflict resolution) develop over time in African American adolescents across the high school transition. The third aim of the present research is to examine gender differences in trajectories of friendship quality across the high school transition. Additionally, I will consider whether gender differences vary across each dimension of friendship quality (Parker & Asher, 1993).

It is hypothesized that overall friendship quality, both positive and negative, will increase over time. However, the rate is expected to change more drastically across the high school transition (from 8<sup>th</sup> to 9<sup>th</sup> grade). In terms of gender differences, it is hypothesized that the rate of increase in friendship quality for girls will differ from boys for intimate exchange, conflict and betrayal, and conflict resolution in that the rate of change will be steeper for boys compared to girls since girls are more likely to consistently have more intimate friendships and conflict earlier than boys (cite). Lastly, it is expected that companionship, recreation, help and guidance will develop similarly for both boys and girls.

## Method

### Participants

*Study populations overview.* Study participants included one hundred and forty adolescents from two samples that are followed longitudinally. The Longitudinal Sample (LS) was a group of 70 African American adolescents, whose development has been followed from infancy. They were initially recruited from two small cities in the south to participate in a study on otitis media (middle ear infection) and language development in African American children. According to the 2000 Census (United States Census Bureau,

2000), one city has a population of approximately 187,000 (45.5% White, 43.8% African American, 3.64% Asian, and 8.56% Latino) and a median household income of \$41,000. The other city has a population of approximately 57,000 (69.5% White, 9.5% African American, 11.8% Asian, and 6.4% Latino) and a median household income of \$52,000. Later on as the participants attended school, the focus of the study changed to consider social processes (identity, parent-child relationships, and friendships). Majority of the participants remained in the same area throughout high school. The Newly Recruited Sample (NRS) supplemented the LS with an additional 70 African American adolescents, each of whom is a friend of one of the adolescents in the LS and was recruited into the study in 6<sup>th</sup> grade. Details about each of these samples are described below. All participants were from middle and high schools in two small cities in the Southeast.

*Longitudinal sample study participants.* Seventy African American children (31 boys and 39 girls) who are participating in the LS were recruited into the study at a mean age of 8.1 months (range of 6 - 12 months). Criteria for recruitment of children into the study were the following: a) African American; b) no genetic disorder or other serious complications at birth; c) birth weight above 2,500 grams; d) under 12 months of age; and e) attendance in one of nine community child care centers. Upon entry into the study, the majority of children were from families living below the poverty level (70.6%), according to the federally defined guidelines (poverty was defined using the criteria for school lunch eligibility). The attrition rate in this study has been very low, 8% between 1 year of age and school entry and 1% for the children whose parents agreed to the school-age follow-up beginning in kindergarten.

When the youth were in 6<sup>th</sup> grade, 28% were very low-income (100% Federal Poverty level), 24% low-income (185% Federal poverty level) and 48% middle- to upper-income. Seventeen percent of mothers had less than a high school education, 16% completed high school, 54% had high school plus at least one year technical training or college, and 13% had a college degree or greater. The youth attended schools in seven school districts, 4 charter schools, and one private school. The proportion of children at each of these 27 schools who received free or reduced price lunch varied greatly ranging from 9% to 69%. The amount of money that these schools spent per student ranged from \$6,213 to \$10,434 with a mean of \$7,964.

*Newly recruited sample (NRS).* There were 70 youth (31 boys and 39 girls) in the NRS. In 6<sup>th</sup> grade, each youth in the LS was asked to name six friends, and we attempted to recruit a friend of each youth to increase the sample size to address questions about development during the middle and high school years. The first friend that was the same gender and grade as the LS youth was contacted, with additional youth on this list contacted as needed. Friends of the LS were recruited to become the NRS, because we believed that our good relationships with these participants would enhance the likelihood that their friends would agree to become part of our new study and because we are interested in studying peer relationships. African American youth who agreed to participate became part of the NRS and received the full 6<sup>th</sup>, 8<sup>th</sup>, and 9<sup>th</sup> grade assessment.

#### Total Sample

When the youth were in 6<sup>th</sup> grade, 27% were very low-income (100% Federal Poverty level), 26% low-income (185% Federal poverty level) and 40% middle- to upper-income. Six percent of mothers had less than a high school education, 24%

completed high school, 52% had high school plus at least one year technical training or college, and 16% had a college degree or greater. They attended the same schools as the LS. The total sample consisted of 139 participants (boys:  $n = 61$ ; girls:  $n = 78$ ). One case did not have any data, so it was deleted from the analyses. Missing data was imputed for 14 participants who had at least two data points using the expectation-maximization algorithm in SPSS (Ibrahim, 1990). Four participants only had one data point in 6<sup>th</sup> grade and therefore were not imputed. There were also 12 students who repeated grades: two repeated 6<sup>th</sup> grade, 9 repeated 8<sup>th</sup> grade, and 1 repeated 10<sup>th</sup> grade. There were also three participants who had an extra data point in Grade 7. Data from the first time students participated were used and the second or third data point for the same grade was taken out of the dataset. For the total sample, there were 140 participants in 6<sup>th</sup> grade, 136 in 8<sup>th</sup> grade, 137 in 9<sup>th</sup> grade, and 135 in 10<sup>th</sup> grade.

## Measures

*Socio-economic status.* Socio-economic status was measured by the average household family income at 6<sup>th</sup> grade. The mean household income was \$45,150 ( $SD =$  \$38,068).

*Friendship quality.* Friendship quality was assessed using the *Friendship Quality Questionnaire (FQQ)* (Parker & Asher, 1993). The participant rated their best same-sex friendship. The questionnaire consisted of 40 items. Participants use a 5-point scale to indicate how true a particular quality is of their relationship with a specific friend. The scale ranged from *not at all true* (0) to *really true* (4). The items reflect six different dimensions: a) Companionship/Recreation (*Ex. We spend lots of time together.*), 5 items ( $\alpha = .67-.79$ ); b) Validation/Support (*Ex. We loan each other things.*), 10 items ( $\alpha = .86-$



.90); c) Help/Guidance (*Ex. We help each other with school work.*), 9 items ( $\alpha = .84-.91$ ); d) Intimacy/Self-Disclosure (*Ex. We trust each other with secrets.*), 6 items ( $\alpha = .87-.92$ ); e) Conflict/Betrayal (*Ex. We get mad at each other a lot.*), 7 items ( $\alpha = .69-.78$ ); and f) Conflict Resolution (*Ex. We always make up easily.*), 3 items ( $\alpha = .69-.74$ ). This measure has not been used with an African American sample and in older adolescent populations. However, it has been shown to have good reliability in majority White samples in 3<sup>rd</sup> to 6<sup>th</sup> graders (boys:  $\alpha = .90$ ; girls:  $\alpha = .95$ ) (Nagle et al., 2003) and 12 year olds ( $\alpha = .77$ ) (Gaertner et al., 2010), see Appendix A.

## Procedure

The youth completed the friendship quality assessment during the summers in one session after 6<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> grades. The assessments were administered individually by research assistants. All research assistants that conducted the surveys were African American.

## Results

### Preliminary Analyses

Descriptive statistics (*M*s and *SD*s) for each dimension of friendship quality for 6<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> grades for boys are displayed in Table 2; for girls in Table 3. Plots of the means indicated that the development of friendship quality from Grades 6 through 9 followed a different pattern compared to Grades 9 through 10, see Figure 1 and 2. T-tests were conducted to determine whether each dimension of friendship quality were significantly different between 6<sup>th</sup> and 8<sup>th</sup> grade, 8<sup>th</sup> and 9<sup>th</sup> grade, and 9<sup>th</sup> and 10<sup>th</sup> grade, see Table 4. Results revealed that validation, conflict, and conflict resolution were not significantly different by grades. Companionship in 6<sup>th</sup> grade was significantly lower

compared to companionship in 8<sup>th</sup> grade,  $t(275) = -2.56, p = .01$  and companionship in 8<sup>th</sup> grade was significantly lower compared to companionship in 9<sup>th</sup> grade,  $t(271) = -2.71, p = .007$ . However, companionship in 9<sup>th</sup> grade and 10<sup>th</sup> grade were not significantly different from each other,  $t(271) = -0.72, p = .47$ . For both intimacy and guidance, only 8<sup>th</sup> and 9<sup>th</sup> grade were significantly different from each other (intimacy:  $t(271) = -2.77, p = .006$ ; guidance:  $t(271) = -2.43, p = .02$ ). Intimacy and guidance were both significantly lower in 8<sup>th</sup> grade compared to 9<sup>th</sup> grade. The results suggested more growth in friendship quality from 6<sup>th</sup> to 9<sup>th</sup> grade than from 9<sup>th</sup> to 10<sup>th</sup> grade. Therefore, a two rate model was designed to fit growth before and during the transition to high school (6<sup>th</sup> to 9<sup>th</sup> grade) and after the transition to high school (9<sup>th</sup> to 10<sup>th</sup> grade).

**Gender differences.** T-tests were also conducted to examine gender differences for all six dimensions of friendship quality, see Table 5. In 6<sup>th</sup> and 8<sup>th</sup> grade, girls reported significantly higher levels of guidance, intimacy, conflict resolution, and validation than boys. In 9<sup>th</sup> grade, girls reported significantly higher levels of companionship, guidance, intimacy, conflict resolution, and validation, yet lower levels of conflict compared to boys. There were fewer significant gender differences in 10<sup>th</sup> grade. Only the composite score of positive friendship quality  $t(106) = -2.10, p = .02$  and intimacy  $t(106) = -3.20, p = .001$  were significantly different by gender, where girls reported significantly more positive friendship quality and intimacy compared to boys. These results suggest that there are strong influences of gender on friendship quality over time, yet these differences decrease later on in 10<sup>th</sup> grade.

#### Piecewise Linear Growth Models

Piecewise linear growth models were fit for two periods: one for Grade 6 through 9 and one for Grade 9 through Grade 10 (see Bryk & Raudenbush, 1992). This allowed two different trajectories to be examined before and during as well as after the high school transition, using the transition as a point of discontinuity. Each grade had to be re-coded for each period (see Table 6). For a two-piece model, the Level 1 model is:

$$Y_t = \pi_0 + \pi_1 a_{1t} + \pi_2 a_{2t} + \varepsilon_t$$

where  $a_{1t}$  and  $a_{2t}$  are coded variables to represent the two periods ( $a_{1t} = \text{Period 1}$  and  $a_{2t} = \text{Period 2}$ ) and the outcome variable is friendship quality. Each dimension of friendship quality was examined in separate models. Therefore, a total of six models were examined for companionship and recreation, validation and support, help and guidance, intimacy and self-disclosure, conflict and betrayal, and conflict resolution. Gender was entered as a predictor (*Boys* = 0; *Girls* = 1) and socio-economic status (SES: household income) was controlled for. The Level 2 model is:

$$\pi_0 = \beta_{00} + \beta_{01}\text{Gender} + \beta_{02}\text{SES} + \gamma_0$$

$$\pi_1 = \beta_{10} + \beta_{11}\text{Gender}$$

$$\pi_2 = \beta_{20} + \beta_{21}\text{Gender}$$

where  $\pi_0$  is friendship quality at Grade 6,  $\pi_1$  is the growth rate of friendship quality during Period 1, and  $\pi_2$  is the growth rate of friendship quality during Period 2. See Table 6 for results of each model.

**Companionship.** The two-piece linear growth model fitted to the data revealed that at Grade 6, there was no significant gender difference in companionship ( $\beta_{00} = -0.02$ ,  $p = .86$ ). For period 1, the growth rate in companionship for boys was marginally significantly different from zero ( $\beta_{10} = 0.10$ ,  $p = .06$ ) and there was a significant

difference between girls and boys ( $\beta_{10} = 0.16, p = .02$ ). This indicates a gender difference in the growth rate for period one. Girls reported significant increases in companionship over time from 6<sup>th</sup> to 9<sup>th</sup> grade. For Period 2, the growth rate was not significant for boys ( $\beta_{20} = 0.20, p = .10$ ) and there was not a significant difference between girls and boys ( $\beta_{20} = -0.16, p = .32$ ). For girls and boys companionship increased from Grade 6 to Grade 9 and girls increased more rapidly compared to boys.

Validation. At Grade 6, girls reported higher levels of validation compared to boys ( $\beta_{00} = 0.28, p = 0.04$ ). The growth rate for boys was not significantly different from zero for Period 1 (Period 1:  $\beta_{10} = -0.04, p = 0.29$ ), but was for Period 2 ( $\beta_{20} = 0.42, p < .001$ ). Girls were significantly different in growth rate from boys for Period 1 ( $\beta_{10} = 0.14, p = .006$ ) and Period 2 ( $\beta_{20} = -0.47, p < .001$ ). Therefore, boys did not increase in validation from 6<sup>th</sup> to 9<sup>th</sup> grade. Additionally, girls reported more of an increase in validation over time from 6<sup>th</sup> to 9<sup>th</sup> grade. From 9<sup>th</sup> grade to 10<sup>th</sup> grade, boys reported an increase in validation and girls reported a decrease in validation.

Intimacy. At Grade 6, girls reported higher levels of intimacy compared to boys ( $\beta_{00} = 0.77, p < .001$ ). The growth rate for boys was not significantly different from zero for Period 1 (Period 1:  $\beta_{10} = 0.05, p = .38$ ), but was for Period 2 ( $\beta_{20} = 0.53, p < .001$ ). Girls were not significantly different than boys in the growth rate for Period 1 ( $\beta_{10} = 0.10, p = .19$ ), but they were significantly different than boys for Period 2 ( $\beta_{20} = -0.55, p = .001$ ). Therefore, there was a not significant increase in intimacy from 6<sup>th</sup> grade to 9<sup>th</sup> grade. Additionally, boys reported an increase in intimacy from 9<sup>th</sup> to 10<sup>th</sup> grade and girls reported a decrease in intimacy compared to boys.

**Guidance.** At Grade 6, there was not a significant gender difference in validation ( $\beta_{00} = 0.26, p = .12$ ). For boys during period 1, the growth rate was not significantly different from zero ( $\beta_{10} = 0.02, p = .72$ ), but was for Period 2 ( $\beta_{20} = 0.32, p = .003$ ). Girls were not significantly different from boys for Period 1 ( $\beta_{10} = 0.08, p = .19$ ), but were for Period 2:  $\beta_{20} = -0.28, p = .04$ . Therefore, there was not a significant change in guidance from 6<sup>th</sup> to 9<sup>th</sup> grade. However, boys increased in guidance and girls decreased in guidance from 9<sup>th</sup> to 10<sup>th</sup> grade.

**Conflict resolution.** At Grade 6, girls reported significantly more conflict resolution compared to boys ( $\beta_{00} = 0.46, p = 0.01$ ). For boys, the growth rate was not significantly different from zero for Period 1 (Period 1:  $\beta_{10} = -0.01, p = .83$ ), but was for Period 2 ( $\beta_{20} = 0.70, p < .001$ ). Girls were significantly different in their growth rate compared to boys for Period 1 ( $\beta_{10} = 0.18, p = .01$ ) and Period 2 ( $\beta_{20} = -0.94, p < .001$ ) compared to boys. Therefore, there was not a significant increase in conflict resolution from 6<sup>th</sup> to 9<sup>th</sup> grade. From 9<sup>th</sup> to 10<sup>th</sup> grade boys reported a significant increase in conflict resolution and girls reported a decrease in conflict resolution over time.

**Conflict.** At Grade 6, there was not a significant gender difference in conflict ( $\beta_{00} = -0.06, p = .64$ ). For boys, the growth rate was not significantly different from zero for Period 1 (Period 1:  $\beta_{10} = 0.05, p = .22$ ), but was for Period 2 ( $\beta_{20} = -0.29, p = .004$ ). Girls were significantly different in their growth rate compared to boys for Period 1 ( $\beta_{10} = -0.12, p = .008$ ) and Period 2 ( $\beta_{20} = 0.33, p = .01$ ). Therefore, there was not a significant change in conflict over time from 6<sup>th</sup> to 9<sup>th</sup> grade. Additionally, boys reported a significant decrease in conflict from 9<sup>th</sup> to 10<sup>th</sup> grade and girls reported a significant increase in conflict compared to boys.

## Discussion

The purpose of the study was to examine gender differences in the development of six dimensions of friendship quality through middle school and across the high school transition. Results highlight the importance of examining the development of friendship quality multi-dimensionally, given that each dimension developed differently over time for boys and girls. Most of the significant changes in trajectories occurred after the high school transition (i.e. from 9<sup>th</sup> to 10<sup>th</sup> grade). Significant gender differences in growth rates were also found in all dimensions except help and guidance.

The trajectories from 6<sup>th</sup> to 9<sup>th</sup> grade did not reveal as many significant findings concerning development trajectories as the trajectories from 9<sup>th</sup> to 10<sup>th</sup>. However, gender differences in trajectories were found for companionship, validation, conflict resolution, and conflict, where girls' trajectories were positive for companionship, validation, and conflict resolution were positive and the trajectory for conflict was negative. Four of the six dimensions (validation, guidance, intimacy, and conflict resolution) significantly increased from 9<sup>th</sup> to 10<sup>th</sup> grade whereas conflict significantly decreased from 9<sup>th</sup> to 10<sup>th</sup> grade. The significant decrease in conflict from 9<sup>th</sup> to 10<sup>th</sup> grade may be related to the increase in conflict resolution from 9<sup>th</sup> to 10<sup>th</sup> grade in that conflict may have been avoided. Additionally, companionship and recreation was the only dimension in which the growth rate did not significantly increase for either period. These results are consistent with previous research on the development of friendship quality. Intimacy has been shown to increase from childhood to adolescence in many studies (Allen, Porter, McFarland, & Marsh, 2005; Parker & Gottman, 1989; Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006). Additionally, conflict resolution has previously been

shown to increase into adolescence because of the development of cognitive and social skills (Laursen & Collins, 1994).

The results are also consistent with previous research that has shown that girls have higher quality friendships compared to boys across time (Parker & Asher, 1993; Underwood, 2007). At Grade 6, there were significant gender differences in trajectories for validation, intimacy, and conflict resolution. For example, from Grade 6 to Grade 9 there were significant gender differences in trajectories where girls significantly increased in reporting companionship, validation, and conflict resolution, but significantly decreased in reporting conflict compared to boys. From 9<sup>th</sup> to 10<sup>th</sup> grade, girls differed from boys in trajectories in which they significantly decreased in reporting validation, intimacy, and conflict resolution, but significantly increased in reporting conflict. Therefore, the high school transition may have more of a negative influence on girls' friendships than it does on boys' friendships given that for girls, positive aspects of friendship quality decreased and conflict increased after the transition.

These results emphasize the possible influence of school transitions when examining the development of friendship quality. The significant developmental changes in friendship quality occurred from 9<sup>th</sup> grade and 10<sup>th</sup> grade, not 6<sup>th</sup> grade to 9<sup>th</sup> grade, implying discontinuity of friendship quality at 9<sup>th</sup> grade. For girls, with the exception of conflict, there was a steady increase in friendship quality until the 9<sup>th</sup> grade when friendship quality tapers off going into 10<sup>th</sup> grade. Boys, on the other hand, had more room to increase in friendship quality later on, which may explain the gender differences in trajectories from 9<sup>th</sup> to 10<sup>th</sup> grade. Overall, there were marked changes in the

trajectories of friendship quality for both boys and girls after the transition, despite the declines in friendship quality for girls.

The results suggest that during high school the development of friendship quality reaches its peak earlier for girls than for boys. At the end of 10<sup>th</sup> grade there is still a marked gender difference between boys and girls in which girls reported higher friendship quality across all positive dimensions of friendship quality except conflict resolution. These gender differences in the development of friendship quality later on in adolescence may be a product of social rules and expectations (Muss, 1982). For example, what maintains a friendship is likely to differ between boys and girls. Social norms may influence boys to have more traditionally masculine friendships, which focuses less on self-disclosure (Marshall, 2010) and more on recreational activities, such as sports (Underwood, 2007). However, the results also reflect underlying cognitive development that occurs during adolescence. Social cognition and interpersonal understanding, such as social perspective taking, increases with age well into adolescence (Selman, 1980). This development makes it possible for adolescents to understand the perspective of their friend. For example, these cognitive advances make it possible for adolescents to engage more effective conflict resolution strategies (Laursen and Collins, 1994). Cognitive development also leads to a greater understanding that a friendship involves certain levels trust, intimacy, and independence (Smetana & Vallalobos, 2009). It is likely that girls develop this sooner than boys, given that boys' trajectories imply more development into 10<sup>th</sup> grade. Additionally, the significance of romantic partners later in adolescence, especially for girls, is likely to increase (Meier & Allen, 2009), which may influence the decrease in quality for girls from 9<sup>th</sup> to 10<sup>th</sup> grade. For boys,



friendship quality increases into 10<sup>th</sup> grade yet still are lower in quality compared to girls. It is possible that despite the salience of romantic partners later on in adolescence, there is still more room for the development of quality in friendships for boys.

It is also important to note that the changes in development may not be an effect of the high school transition, but an underlying developmental effect. That is, these developmental differences may occur despite any school transition. Girls may experience an increase in friendship quality a year or so earlier than boys normatively. One way to explore this would be to compare adolescents who experience the high school transitions and those who do not. The stability of the friendships may also be a factor given that those who do not transition may be more likely to keep the same friends from middle school to high school.

The present study adds to the literature on friendship quality in three ways. One, it extends research on friendships in African American adolescents. Because the present study is not comparative to other racial groups, there is not an ability to determine racial differences in the development of friendship quality. However, the present results show similar development from previous research on other populations. Additionally, the study examined normative development of friendship quality in African American youth and highlights variability in friendship quality within the group. Second, the study examines the development of friendship quality longitudinally across four time points, which gave a clear picture of how friendship quality develops over time. Third, the study includes the transition to high school, which has not been studied as extensively as the middle school transition. The results have shown that the transition to high school is an important period

regarding friendship quality development because it captures a period where friendship quality may be most salient, which adolescents spend majority of their free time together.

One limitation of the present study is the fact that the stability of the friendships was not measured. Therefore, it is possible that the friend that each participant referred to when answering the questionnaire may have changed each year. Stability is important to consider when examining the development friendship quality because it is possible that the developmental changes in quality may be because of the development of new friendships or the ending of old friendships.

Another limitation is that the present study only examined friendship quality based on self-report. Basing friendship quality only on self-report gives a limited amount of insight into each friendship. Determining whether perceived friendship quality is reciprocal between both friends by analyzing dyads of friendships would further extend research in friendship quality. For example, a study by Cillessen, Jiang, West, and Laxzkowski (2005) on adolescent same-sex best friendship dyads found consistencies in how members of the friendship saw themselves (e.g. aggressive, pro-social) and how both members viewed their friendship. Various sources of reports may help to get a more accurate understanding of friendship quality and how it may influence and be influenced by other areas of adolescents' lives.

Finally, the sample consisted of African American adolescents from urban areas in the south, which limits the generalizability of the results in that the participants. Adolescents from higher density areas, such as urban areas, may have higher likelihood of finding and having friends (Vliet, 1981). The sample was also not random, given that the sample was increased by adding the best friend of the participants in the longitudinal

sample. This may have influenced the results by having participants that are similar in friendship quality. Additionally, data through the 11<sup>th</sup> year of high school and beyond would be helpful to understand the trajectory of friendship quality after 10<sup>th</sup> grade. This information would elucidate whether friendship quality may increase, decrease, or stay stable throughout the rest of high school.

Future research should explore the long-term influences of friendship quality during adolescence. High quality friendships have been shown to promote positive developmental outcomes such as higher self-esteem, self-confidence, and sociability (Hartup, 1996). Additionally, greater social skills have been associated with lower levels of depression and higher levels of adaptation (Allen et al., 2005). They have also been shown to act as a protective factor against bullying (Schmidt & Bagwell, 2007), inter-parental conflict and maladjustment (Larsen, Branje, van der Valk, & Meeus, 2007), and childhood abuse and depression (Powers, Ressler, Bradley, 2009). Therefore, friendship quality may act as a protective factor against negative developmental outcomes. Research should also explore whether this may differ between boys and girls and how the various dimensions of friendship quality may act differently by gender. By studying friendship quality multi-dimensionally over time, researchers will be able to create a more complete picture of how friendship quality develops and how each dimension may play a role in different areas of developmental outcomes.

## Chapter III

### Friendship Quality and Risky Behavior in Best-Friendship Dyads

Friendships have been widely studied in terms of shaping child and adolescent development. It is widely known that friend's risky behavior is associated with whether the youth engages in risky behavior as well (Selfhout, Branje, & Meeus, 2008). However, there have been few studies that have examined how friendship quality may play a role in risky behavior. For example, a higher quality relationship may be considered healthy, but not if the friends engage in risky behavior. Peer pressure in the context of a friendship that is high in validation, intimacy, and guidance may be especially effective. In addition, youth may be more likely to emulate friends' risky behavior if that friendship is especially high in quality. Therefore, high quality friendships may be a source of vulnerability depending on the behavior of the friend.

For the purposes of this study, friendship quality is defined by the different social and emotional resources that can be gained from having a high quality friendship. Friendship quality refers to the extent to which the friendship is characterized by positive features, such as intimacy, companionship, and helping behavior, and negative features, such as conflict and rivalry (Berndt, 2002).

The present study addresses the relationship between friendship quality and the youth's friend's risky behavior on the youth's risky behavior. Most studies of friendship quality have examined how friendship quality influences constructs such as self-esteem (Thomas & Daubman, 2001; Walker & Greene, 1986; Way & Grenne, 2006), depression

(Brendgen et al., 2000; Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006); but few have studied how it relates to risky behavior. It has been found that higher friendship quality was associated with higher levels of substance abuse in adolescents (Engles & ter Bogt, 2001). It is likely that adolescents who engage in risky behavior have lower quality friendships. However, it is unclear how the friend's risky behavior influences the relationship between friendship quality and risky behavior.

### Aims of Present Study

The overall aim of the present study is to examine the relationship between friendship quality and the youth's friend's risky behavior on risky behavior of the youth (target child) from 8<sup>th</sup> to 9<sup>th</sup> grades. Therefore, the study will test: (1) the relationship between friendship quality and risky behavior of the target child, (2) the relationship between the friend's risky behavior and the target child's risky behavior, and (3) the interaction between friendship quality and the friend's risky behavior on the target child's risky behavior. It is hypothesized that positive aspects of friendship quality (i.e. companionship, validation, intimacy, conflict resolution, and guidance) will predict lower risky behavior and the negative aspect of friendship quality (i.e. conflict) will predict higher risky behavior. A main effect of the friend's risky behavior is also hypothesized, in that youth's with best-friends that engage in higher levels of risky behavior will predict more levels of risky behavior in the target child. Finally, it is hypothesized that the interaction between friendship quality and the friend's risky behavior will influence risky behavior in the target child. That is, if the child is in a high quality friendship with a friend that engaged in low risky behavior, the child will engage in less risky behavior. Other the other hand, if the child is in a low quality friendship with a friend that engages

in higher risky behavior, the child will engage in more risky behavior. It is also hypothesized that negative friendship quality (i.e. conflict) will be associated with higher levels of risky behavior and even higher levels when the friend's risky behavior is high.

It is possible that having a high quality friendship with a best-friend that engages in higher levels of risky behavior may make risky behavior more attractive for the youth. It is also possible that having a low quality friendship may make the youth more inclined to engage in risky behavior to increase quality in their friendships. The present study will elucidate how these relationships work in African American youth and how they differ by gender.

## Method

### Participants

Friendship dyads. As stated in the previous study, longitudinal sample was asked to recruit their best friend into the study (newly recruited sample). Dyads consisted of 62 pairs of best friends, with a total of 124 participants (boys:  $n = 28$ ; girls:  $n = 34$ ). Missing data was imputed using the expectation-maximization algorithm in SPSS (Ibrahim, 1990). There were three missing cases for the 8<sup>th</sup> grade friendship quality measure, ten missing for the 6<sup>th</sup> grade risky behavior measure, eight missing for the 8<sup>th</sup> grade risky behavior measure, and two missing from the friend's 6<sup>th</sup> grade risky behavior measure.

### Measures

Friendship quality. Friendship quality was assessed using the *Friendship Quality Questionnaire (FQQ)* (Parker & Asher, 1993). The participant rated their very best friendship. The questionnaire consisted of 40 items. Participants use a 5-point scale to indicate how true a particular quality is of their relationship with a specific friend. The

scale ranged from *not at all true* (0) to *really true* (4). The items reflect six different dimensions: a) Companionship/Recreation (*Ex. We spend lots of time together.*), 5 items ( $\alpha = .70$ ); b) Validation/Support (*Ex. We loan each other things.*), 10 items ( $\alpha = .90$ ); c) Help/Guidance (*Ex. We help each other with school work.*), 9 items ( $\alpha = .91$ ); d) Intimacy/Self-Disclosure (*Ex. We trust each other with secrets.*), 6 items ( $\alpha = .92$ ); e) Conflict/Betrayal (*Ex. We get mad at each other a lot.*), 7 items ( $\alpha = .69$ ); and f) Conflict Resolution (*Ex. We always make up easily.*), 3 items ( $\alpha = .77$ ). This measure has not been used with an African American sample and in older adolescent populations. However, it has been shown to have good reliability in majority White samples in 3<sup>rd</sup> to 6<sup>th</sup> graders (boys:  $\alpha = .90$ ; girls:  $\alpha = .95$ ) (Nagle et al., 2003) and 12 year olds ( $\alpha = .77$ ) (Gaertner et al., 2010), see Appendix A.

Risky behavior. Risky behavior was assessed in 6<sup>th</sup> and 8<sup>th</sup> using the Youth Risky Behavior Survey used by the CDC (Sussman, Everett Jones, Wilson, Kann, 2002). The youth responded to 21 questions on whether they engaged in 55 different risky behaviors. The survey asked questions on personal safety (e.g. riding a helmet while riding a bike), violence-related behavior (e.g. getting into a fight), tobacco use, and alcohol use. Questions about sexual activity were only given to participants in 8<sup>th</sup> grade. The response scale was: *never* (0), *once or twice* (1), *more than twice* (2) or *don't know* (3). To maintain confidentiality, the participants' responses were reported as composite score and answers for each item were not available for 6<sup>th</sup> and 8<sup>th</sup> grades. Youth completed their answers on an answer sheet that could be separated from the actual questions. Questions were posed in a random order for each participant. After the youth completed the form, the paper was torn in half down the length of the paper and only the

identifying sticker and responses were kept and entered into the data set. Answers were then separated and scored. Because of this, reliability and factor analyses were not able to be conducted. However, it has been shown to have high internal reliability ( $\alpha = .89$ ) by the National Institute of Child Health and Human Development (NCIHD) (Sussman, Everett Jones, Wilson, & Kann, 2002), see Appendix B.

## Procedure

The youth completed the friendship quality assessment during the summers in one session after 6<sup>th</sup> and 8<sup>th</sup> grades. The youth assessments were administered individually by research assistants. All research assistants were African American.

## Results

### Data Analytic Strategy

Hierarchical regression analyses were used to determine whether friendship quality in 6<sup>th</sup> grade and the target child's friend's risky behavior in 6<sup>th</sup> grade influenced risky behavior of the target child in 8<sup>th</sup> grade. Only 6<sup>th</sup> and 8<sup>th</sup> grade data were used because the target child's best friend was added in 6<sup>th</sup> grade. Therefore, there is a possibility that the target child's best friend may change after the 6<sup>th</sup> grade time point. Two separate models for positive and negative friendship quality were analyzed. Positive friendship quality consisted of a composite score of the five positive dimensions of friendship quality (companionship, validation, intimacy, guidance, and conflict resolution). Negative friendship quality was measured by the conflict dimension. The independent variable (friend's risky behavior) and the moderator (friendship quality) were both centered (Frazier, Tix, & Barron, 2004). In each model at step 1, 6<sup>th</sup> grade friendship quality and the friend's risky behavior in 6<sup>th</sup> grade were entered as the



independent variables. Household income of the target child and 6<sup>th</sup> grade risky behavior were also entered as control variables. To consider the moderating or protective effect of friendship quality, an interaction term reflecting the product of friendship quality and the friend's risky behavior was entered simultaneously at step 2. If significant, this interaction was explored according to the recommendations of Aiken and West (1991). Plots of the three-way interactions were evaluated. Once the three-way interaction between friendship quality, friend's risky behavior, and gender were found to be significant, separate regression analyses were conducted for boys and girls and the plots for these interactions were evaluated as well.

### Descriptive and Correlation Analyses

Descriptive statistics for target children are shown in Table 8, for friends of target children in Table 9. On average, boys reported that they engaged in slightly more risky behavior in 8<sup>th</sup> grade compared to girls. A t-test revealed that this was not a significant difference ( $t(60) = 1.25, p = .22$ ). There was also not a significant gender difference in risky behavior for their friends, ( $t(59) = 0.39, p = .70$ ).

Correlation analyses revealed that the household income for both the target children was not significantly related to their 6<sup>th</sup> risky behavior or their friend's, but was significantly positively correlated with their 8<sup>th</sup> grade risky behavior ( $r = .27, p = .03$ ), see Table 10. For the friends of target children, household income was not significantly related to the target child's risky behavior in 6<sup>th</sup> and 8<sup>th</sup> grade or the friend's risky behavior in 6<sup>th</sup> grade. Regarding similarity between friends, the target household income was not significantly related to their friend's household income. Risky behavior in 6<sup>th</sup> grade was significantly positively correlated to risky behavior in 8<sup>th</sup> grade in target

children ( $r = .51, p < .001$ ). Additionally, the target child's risky behavior in 6<sup>th</sup> grade was not correlated with the friend's risky behavior in 6<sup>th</sup> grade.

### Regression Analyses

There were no significant main effects or two-way interactions for positive friendship quality. The three-way interaction of positive friendship quality, friend's risky behavior, and gender was marginally significant, see Table 11. Additionally, there were no significant main effects or interactions found for negative friendship quality. For positive friendship quality (composite of the five positive dimensions of friendship quality), the first step was significant,  $F(5, 56) = 5.12, p = .001$  and the model accounted for 31% of the variance in predicting 8<sup>th</sup> grade risky behavior. The second step was also significant,  $F(9, 52) = 3.72, p = .001$  and accounted for 39% of the variance in predicting risky behavior. There was no significant main effect for positive friendship quality ( $b = 0.01, p = .80$ ), no significant main effect of friend's risky behavior on the target child's risky behavior ( $b = 0.13, p = .26$ ). The interaction between positive friendship quality and gender was not significant ( $b = 0.07, p = .57$ ), the interaction between the friend's 6<sup>th</sup> grade risky behavior and gender was not significant ( $b = 0.18, p = .58$ ), and the interaction between positive friendship quality and the friend's 6<sup>th</sup> grade risky behavior was not significant ( $b = 0.23, p = .46$ ). However, the three-way interaction among positive friendship quality, friend's risky behavior, and gender was marginally significant ( $b = -0.83, p = .07$ ), see Table 5. Therefore, gender may be influencing the interaction between positive friendship quality and the friend's risky behavior in 6<sup>th</sup> grade on risky behavior in 8<sup>th</sup> grade (see Figure 3). For girls, the plots showed that when they viewed their friendship as high in quality there was not much of a difference in risky behavior,

according to friend's risky behavior. However, when their friendship was low in quality and their friend engaged in high levels of risky behavior, they were more likely to engage in more risky behavior. Additionally, if the friendship was low in quality and their friend engaged in low levels of risky behavior, they were less likely to engage in risky behavior. The follow-up regression for girls showed that this interaction was marginally significant. For boys, the plots showed that when friendship was low in quality there was no difference in risky behavior. However, when the friendship was high in quality and the friend engaged in more risky behavior, they were more likely to engage in higher risky behavior. The separate regression for boys, though, showed that these relationships were not statistically significant.

After interpreting the plots, separate regression analyses were conducted for boys and girls. Results of regression analyses for boys and girls are shown in Table 11 for positive friendship quality and Table 12 for negative friendship quality. Given that the result for the three-way interaction was marginally significant for positive friendship quality, separate regression analyses were conducted to examine boys and girls separately. For boys, neither main effects of friendship quality and the friend's risky behavior and the interaction between positive friendship quality and the friend's risky behavior was not significant, see Table 10. However, for girls, first step was marginally significant,  $F(4, 29) = 2.70, p = 0.05$ ) and the model accounted for 27% of the variance in predicting risky behavior. The second step was significant,  $F(5, 28) = 3.08, p = 0.02$ ) and accounted for 36% of the variance in predicting risky behavior, see Table 10. There was no significant main effect for positive friendship quality ( $b = 0.07, p = .39$ ) and friend's risky behavior on the risky behavior of the target child ( $b = 0.21, p = .38$ ). The interaction

between positive friendship quality and the friend's risky behavior in 6<sup>th</sup> grade was marginally significant ( $b = -0.62$ ,  $p = .07$ ), see Figure 4. That is, when positive friendship quality was low and the friend's risky behavior was high, girls participated in higher risky behavior. However, if in 6<sup>th</sup> grade positive friendship quality was high, there was less of a difference in risky behavior when the friend's risky behavior was low or high.

### Discussion

The aim of the present study was to explore how positive and negative friendship quality and the adolescent's friend's risky behavior were associated with the adolescent's risky behavior. Although few studies have examined the relationship between friendship quality and risky behavior, more research has been done on peer influences on risky behavior (Farrel & White, 1998; Hair, Park, Ling, & Morre, 2009; Wong, Fitzhugh, Westerfield, & Eddy, 1995). To understand how peer influence and friendship quality work together, this study addressed whether the friend's risky behavior influences the relationship between friendship quality and risky behavior of the adolescent. African American adolescent best friendship dyads were examined in order to assess the quality of the friendship as well as the risky behavior reported by the friend. It has been suggested that spending time with deviant friends influences more deviant behavior (Dodge, Dishion, & Lansford, 2006). Having an especially close relationship with a friend who engages in risky behavior may be particularly problematic. This study is important because it questions whether friendship quality is advantageous or disadvantageous when an adolescent spends time with peers that engage in risky behavior.

Results revealed only marginally significant findings for the interaction between positive friendship quality and the friend's risky behavior in girls. The interaction between 6<sup>th</sup> grade positive friendship quality and their friend's risky behavior in 6<sup>th</sup> grade was found to marginally predict 8<sup>th</sup> grade risky behavior. Girls who reported low friendship quality and had a friend with high levels of risky behavior in 6<sup>th</sup> grade had increases in their own risky behavior from sixth to eighth grade. Additionally, girls who reported low friendship quality and had a friend with low levels of risky behavior in 6<sup>th</sup> grade reported the least amount of risky behavior. On the other hand, the friend's risky behavior did not have as large of an influence on risky behavior in girls with higher positive quality friendships.

The findings address the question of whether the quality of the friendship really matters when the youths' friends are engaging in risky behavior. The results imply that the advantages and disadvantages of positive friendship quality likely depend on what the youth's friends are doing together, but only in girls. Adolescent girls with lower quality friendships with girls who are engaging in risky behavior are more likely to engage in risky behavior. The finding that this relationship only holds when the friendship is low in quality is important. When positive friendship quality is high, there may be less of an influence of the friend's risky behavior, which is also consistent with findings that higher quality friendships may be protective (McElhaney, Immele, Smith, & Allen, 2006) and lower quality friendships may be risk factors (Wong, Eccles, & Sameroff, 2003). On the other hand, it was found that the participants that reported the least amount of risky behavior were those who had low quality friendships with friends that engaged in low levels of risky behavior. This may be because risky behavior is more likely to be done

with friends (Selfhout, Branje, & Meeus, 2008) and low quality friendships imply minimal amounts of time spent with their friends, which may deter them from engaging in risky behaviors.

Regarding gender differences, the results indicated that the interaction between friendship quality and the friend's risky behavior had a stronger influence on risky behavior in girls compared to boys. This may be because girls reported higher quality friendships compared to boys in 6<sup>th</sup> grade. Therefore, friendship quality may have more of an influence on girls than it does on boys with regards to risky behavior. For example, girls in low quality friendships may engage in more risky behavior to maintain the friendship if the quality of the friendship is important to them. For boys, friends and the quality of the friendship may not have an influence on whether or not they engage in risky behavior. However, there may be other factors contributing to the gender differences other than mean differences. For example, gender differences in parenting may also play a role in levels of risky behavior.

Overall, given that the mean of risky behavior was low in boys and girls in 6<sup>th</sup> and 8<sup>th</sup> grade, 8<sup>th</sup> graders in general may not engage in much risky behavior. Additionally, the measure of risky behavior only addressed low-risk behaviors (e.g. riding a bike without a helmet, smoking, and alcohol use). The measure did not address drug use. Therefore, it is also possible that the measure missing some behaviors that adolescents may have engaged in and therefore not get the entire picture of what they are doing with their friends.

The findings are consistent with research that suggests African American adolescents engage in lower risky behavior compared to other racial groups (Cooper,

Peirce, Huselid, 1994; Wallace & Muroff, 2002), given the overall low mean of risky behavior across the sample. However, past research has also found that African American engage in more risky sexual behavior (Woods et al., 2010) and violent behavior (Caldwell, Rafferty, Reischl, De Loney, Brooks, 2010) compared to other racial groups. Although the measure of risky behavior asked about both sexual and violent behavior, these behaviors were also low. However, due to the measure being completely confidential, a comparison of the sub-scales of risky behavior were not able to be conducted. Overall, the low mean and lack of variability in this measure may have influenced the insignificant results.

### Limitations and Future Directions

The study had a few limitations. The marginally significant findings could be due to the small sample size. There was a limited number of participants because of the fact that they were paired with their best friends. However, the fact that marginal significant findings were found, it is likely that with a larger sample, significant findings and gender differences may be elucidated. Additionally, as mentioned previously, the risky behavior measure did not address higher risky behaviors that the adolescents may have engaged in, which provided a limited number of behaviors to be examined. It is also likely that insignificant findings were due to the fact that the best friend the target child reported on in 6<sup>th</sup> grade may have not been the same best friend in 8<sup>th</sup> grade. Measuring stability of the friendship may have given a clearer picture of the advantages and disadvantages of friendship quality over time. Longitudinal studies the examine the stability of friendship dyads and the quality of these friendships over time will help determine what aspects of friendships are most beneficial and detrimental at different points in adolescents lives,

particularly across school transitions. There is also the possibility that the best friend was not a “true” best friend given that the best friend had to be a same race, same sex best friend. This may have influenced the insignificant results as well as the fact that friends’ risky behaviors were not correlated. Some participants may also have not had a best friend and therefore may have chosen a classmate or an acquaintance. This may have influenced the insignificant results in that the influence of friendships may have been underestimated. Future research should also examine how parenting and parent support work with friendship quality and friend’s risky behavior on risky behavior of the adolescent. Parent support has been shown to be protective against substance use in adolescents, compared to peer support which has been shown to be more complex and unclear (Wills, Resko, Ainette, & Mendoza, 2004). Additionally, parenting skills (i.e., more parental monitoring and communication about sex) in African American fathers were found to be beneficial in preventing risky behaviors in their sons (Caldwell, Rafferty, Reishcl, De Loney, & Brooks, 2010). It is anticipated that higher quality relationships with both peers and parents are the most beneficial in hindering risky and problem behavior.

## Conclusion

The study contributes to research on friends and risky behavior in three ways. First is adds to the literature on friendship dyads in African American adolescents. Selfhout, Branje, and Meeus (2008) examined friendship dyads in Dutch adolescents and did not find an interaction between friendship quality and friend’s delinquency in delinquent behavior. The present study suggests that this interaction may differ culturally given the marginally significant results in African American girls. Second, the study



suggests that friendships that are low in quality may be a risk factor for risky behavior and friendships that are high in quality may provide more opportunity for risk taking behaviors. Finally, the association between friendship quality and friend's risky behavior may act differently for African American girls and boys. For example, for girls, the friend's risky behavior had a larger influence on risky behavior if the friendship was low in quality where as for boys, the friend's risky behavior had a larger influence on risky behavior if the friendship was high in quality. That is, for girls, having a *low* quality friendship and a friend that engaged in risky behavior was detrimental. On the other hand, for boys, having a *high* quality friendship and a friend that engaged in risky behavior was detrimental. Qualitative research on African American and White women found that African American women were more likely to go to church with their friends, while White women were more likely to go drinking with their friends. Overall, the study found that African American women emphasized the importance of trust in a friendship, as well as help in difficult times, such as financial troubles and deaths (Greif & Sharpe, 2010). Therefore, friendships that are high in quality may be beneficial for African American girls because they may do less risky activities together.

There may also be other sources of social support that may help boys and girls differently, such as church members, religious leaders, and sport coaches. More research, both quantitative and qualitative, should be examine how both friendship quality and risky behavior of friends influence risky and problem behavior. This research may be particularly helpful for policies on recommendations for youth problem behavior.

## Chapter IV

### Friendship Quality as a Buffer Against Perceived Racial Discrimination on Risky Behavior

Friendships are beneficial in providing opportunities of social interactions that are necessary for positive development. However, the benefits of these friendships may differ by the quality of the friendships that adolescents experience. Friendships have been shown to have significant influence on many aspects of development. By looking at friendship quality over time, friendships are examined not as a stable entity, but as a changing and adaptable experience. Friendships have been known to provide social support and to buffer the negative effects of peer victimization and bullying (Schmidt & Bagwell, 2007) as well as stress (Thompson, Flood, & Goodvin, 2006). However, there have been mixed results on whether friendship quality has protective characteristics in other areas (Selfhout, Branje, & Meeus, 2008). For example, one study found that friendship quality did not have protective characteristics against marital parental conflict on adolescents' psychological adjustment (Larsen, Branje, van der Valk, I., & Meeus, 2007). Additionally, friendship quality has also been shown to be related to substance abuse, where higher support and intimacy from friends was related to more substance abuse (Engles & ter Bogt, 2001). This would suggest that friendship quality may in some cases actually influence more risky behavior in adolescence. Therefore, the present study

will elucidate how friendship quality may buffer against risky behavior when presented with perceived discrimination. There have been few studies on friendships and friendship quality in African Americans. Most studies have looked at minority populations in comparison to other racial and ethnic minorities (Eccles, Wong, & Peck, 2006). African American children and adolescents have unique cultural and contextual experiences, including experiences with racial discrimination. Racism and discrimination is likely to be common in their everyday lives (Pachter, Bernstein, Szalacha, & Garica Coll, 2010). These experiences may influence whether they engage in risky behavior and how they use social supports throughout their life. The Garcia Coll et al. (1996) conceptual model for the study of minority children suggest that schools are environments that can promote or inhibit development for minority children. Social support from friends may be helpful when adolescents are faced with racial discrimination. For example, social supports may be particularly important when face with perceived racial discrimination, especially with other friends who have experienced similar situations. Additionally, other types of social support may be utilized as well, such as from parents, teachers, religious leaders, and sport coaches.

Perceived racial discrimination has been shown to have negative influences on developmental outcomes, such as psychological adjustment and risky behavior. Many studies have documented the influence of perceived racial discrimination on increases of depressive symptoms (Mossakowski, 2003) and decreases of self-esteem (Fisher et al., 2000; Greene, Way, & Pahl, 2006; Seaton, 2010). Others have shown how perceived racial discrimination has an influence on problem behaviors in school (Wong, Eccles, Sameroff, 2003), violent behavior (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, &

Zimmerman, 2004), risky cognitions (Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004), cigarette smoking (Landrine & Klonoff, 1996), and substance use (Gibbons et al., 2010). It is also clear, however, that a number of variables function to buffer youth from the negative effects of racial discrimination, such as racial socialization (Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007) and racial identity (Eccles, Wong, & Peck, 2006).

### Aims of Study

The present study will examine how friendship quality may act as a protective factor against the influences of perceived discrimination on risky behavior across the high school transition (8<sup>th</sup> to 9<sup>th</sup> grade). Research has shown that perceived discrimination increases over time (Greene, Way, & Pahl, 2006; Seaton, Caldwell, Sellers, & Jackson, 2008) and school transitions may trigger increased experiences with discrimination. This may be because of being in a larger, more diverse school environment and having more opportunities to experience discrimination (Eccles, Wigfield, & Schiefele, 1998). Finally, the study will examine possible gender differences in friendship quality over time and whether certain aspects of friendship quality may develop differently by gender. It is hypothesized that higher perceived discrimination will predict higher levels of risky behavior in both boys and girls and that positive friendship quality (i.e. companionship and recreation, help and guidance, intimate exchange, and conflict resolution) will buffer against perceived discrimination on risky behavior in 8<sup>th</sup> grade.

## Method

### Participants

There was a total of 137 participants (boys:  $n = 59$ ; girls:  $n = 77$ ). Missing data was imputed using the expectation-maximization algorithm in SPSS (Ibrahim, 1990).

There was one missing case for the friendship quality measure, 14 for the 6<sup>th</sup> grade risky behavior measure, 20 for the 8<sup>th</sup> grade risky behavior measure, and one for the perceived discrimination measure. Three cases were taken out of analyses because two had only one data point in 6<sup>th</sup> grade and one had no data.

## Measures

Friendship quality. Friendship quality was assessed using the *Friendship Quality Questionnaire (FQQ)* (Parker & Asher, 1993). The participant rated their very best friendship. The questionnaire consisted of 40 items. Participants use a 5-point scale to indicate how true a particular quality is of their relationship with a specific friend. The scale ranged from *not at all true* (0) to *really true* (4). The items reflect six different dimensions: a) Companionship/Recreation (*Ex. We spend lots of time together.*), 5 items ( $\alpha = .70$ ); b) Validation/Support (*Ex. We loan each other things.*), 10 items ( $\alpha = .86$ ); c) Help/Guidance (*Ex. We help each other with school work.*), 9 items ( $\alpha = .89$ ); d) Intimacy/Self-Disclosure (*Ex. We trust each other with secrets.*), 6 items ( $\alpha = .92$ ); e) Conflict/Betrayal (*Ex. We get mad at each other a lot.*), 7 items ( $\alpha = .75$ ); and f) Conflict Resolution (*Ex. We always make up easily.*), 3 items ( $\alpha = .69-.70$ ). This measure has not been used with an African American sample and in older adolescent populations. However, it has been shown to have good reliability in majority White samples in 3<sup>rd</sup> to 6<sup>th</sup> graders (boys:  $\alpha = .90$ ; girls:  $\alpha = .95$ ) (Nagle et al., 2003) and 12 year olds ( $\alpha = .77$ ) (Gaertner et al., 2010), see Appendix A.

Risky behavior. Risky behavior was assessed in 6<sup>th</sup> and 8<sup>th</sup> using the Youth Risky Behavior Survey used by the CDC (Sussman, Everett Jones, Wilson, Kann, 2002). The youth responded to 21 questions on whether they engaged in 55 different risky behaviors.

The survey asked questions on personal safety (e.g. riding a helmet while riding a bike), violence-related behavior (e.g. getting into a fight), tobacco use, and alcohol use. Questions about sexual activity were only given to participants in 8<sup>th</sup> grade. The response scale was: *never* (0), *once or twice* (1), *more than twice* (2) or *don't know* (3). To maintain confidentiality, the participants' responses were reported as composite score and answers for each item were not available for 6<sup>th</sup> and 8<sup>th</sup> grades. Youth completed their answers on an answer sheet that could be separated from the actual questions. Questions were posed in a random order for each participant. After the youth completed the form, the paper was torn in half down the length of the paper and only the identifying sticker and responses were kept and entered into the data set. Answers were then separated and scored. Because of this, reliability and factor analyses were not able to be conducted. However, it has been shown to have high internal reliability ( $\alpha = .89$ ) by the National Institute of Child Health and Human Development (NICHD) (Sussman, Everett Jones, Wilson, & Kann, 2002), see Appendix B.

Perceived discrimination. Perceived discrimination in school was measured with *Perception of School Racial Climate* (Eccles, 1993), which was derived from questionnaires in the Maryland Adolescent Development in Context Study (MADICS). The youth were asked if they think that their experiences in school were tied to race (e.g. I am called on less by a teacher because of my race; Teachers grade me harder because of my race). The measure included 14 items and showed excellent internal reliability ( $\alpha = .91$ ). There were four different 5-point response scales depending on the question, see Appendix C.

## Procedure

The youth completed the friendship quality assessment during the summers in one session after 6<sup>th</sup> and 8<sup>th</sup> grades. The youth assessments were administered individually by research assistants. All research assistants were African American.

## Results

### Data Analytic Strategy

Hierarchical regression analyses were used to determine whether friendship quality in 8<sup>th</sup> grade serves as a protective factor against the effects of perceived discrimination in 8<sup>th</sup> grade on risky behavior in 8<sup>th</sup> grade. Only 6<sup>th</sup> and 8<sup>th</sup> grade data was used for this study because the risky behavior measure used after 8<sup>th</sup> grade differed from the risky behavior measure in 9<sup>th</sup> grade. Therefore to be consistent in measurement and include longitudinal data, 6<sup>th</sup> and 8<sup>th</sup> grade measures of risky behavior were used.

Separate models for each dimension of friendship quality were examined. The independent variable (perceived discrimination) and the moderator (friendship quality) were both centered (Frazier, Tix, & Barron, 2004). In each model at step 1, 8th grade perceived discrimination and friendship quality were entered as the independent variables. Household income and 6<sup>th</sup> grade risky behavior were also entered as control variables. To consider the moderating or protective effect of friendship quality, an interaction term reflecting the product of perceived discrimination and friendship quality was entered simultaneously at step 2. If significant, this interaction was explored according to the recommendations of Aiken and West (1991). Plots of the interaction were evaluated.

### Preliminary Analyses

The descriptive statistics for the study variables are presented in Table 13. On average, participants in 8<sup>th</sup> grade reported lower levels of conflict and betrayal than the other five positive aspects of friendship quality. Girls, on average, reported higher friendship quality compared to boys, with the exception of conflict. Boys ( $M= 2.16$ ,  $SD= 0.75$ ) on average reported more conflict than girls ( $M= 1.92$ ,  $SD= 0.80$ ). Boys ( $M= 2.14$ ,  $SD= 0.89$ ) reported on average significantly more perceived racial discrimination than girls ( $M= 1.75$ ,  $SD= 0.66$ ),  $t(141) = 2.97$ ,  $p = .003$ . Boys ( $M= 0.53$ ,  $SD= 0.32$ ) reported on average significantly more risky behavior than girls ( $M= 0.42$ ,  $SD= 0.23$ ),  $t(141) = 2.40$ ,  $p = .02$ .

Correlation analyses were conducted on the study variables and are presented in Table 14. Out of the six friendship quality dimensions, only 8<sup>th</sup> grade validation ( $r = -.19$ ,  $p = .03$ ) and 8<sup>th</sup> grade conflict ( $r = .18$ ,  $p = .03$ ) were related to 8<sup>th</sup> grade perceived discrimination. Higher levels of validation were related to lower levels of perceived discrimination and higher levels of conflict were related to higher levels of perceived discrimination. No dimensions of friendship quality were related to 6<sup>th</sup> grade or 8<sup>th</sup> grade risky behavior. Sixth grade risky behavior and eighth grade risky were positively correlated with each other ( $r = .49$ ,  $p < .001$ ). Eighth grade risky behavior was positively correlated with perceived discrimination in 8<sup>th</sup> grade ( $r = .29$ ,  $p < .001$ ), where higher levels of risky behavior were related to more perceived discrimination.

### Regression Analyses

Results of regression analyses are shown in Table 15. The findings partially supported the hypothesis that 8<sup>th</sup> grade friendship quality buffers against 8<sup>th</sup> grade perceived discrimination on risky behavior in 8<sup>th</sup> grade (controlling for socio-economic



status and 6<sup>th</sup> grade risky behavior) in boys, but not in girls. For boys, overall positive friendship quality buffered against the positive effect of perceived discrimination on risky behavior. After examining the six dimensions separately, validation and guidance also buffered against perceived discrimination on risky behavior. The other three positive friendship quality dimensions (companionship, conflict resolution, and intimacy) did not act as protective factors. Additionally, conflict was not found to be a risk factor on risky behavior when faced with perceived discrimination.

**Positive friendship quality model.** The first step of this model was significant,  $F(5, 131) = 10.97, p < .001$ ) and the model accounted for 27% of the variance in predicting 8<sup>th</sup> grade risky behavior. The second step was significant,  $F(9, 127) = 9.86, p < .000$ ) and accounted for 37% of the variance in predicting 8<sup>th</sup> grade risky behavior. There was a marginally significant main effect for perceived discrimination ( $b = 0.05, p = .07$ ), but there was not a significant main effect of positive friendship quality on risky behavior ( $b = 0.002, p = 0.94$ ). The interaction between positive friendship quality and gender was not significant ( $b = 0.08, p = .16$ ). The interactions between perceived discrimination and gender ( $b = -0.16, p = .002$ ) and positive friendship quality and perceived discrimination ( $b = -0.13, p = .003$ ) were significant. Plots of discrimination by gender on risky behavior showed that when perceived discrimination was low, there was no gender difference in risky behavior. However, when perceived discrimination was higher, boys reported more risky behavior than girls. When perceived discrimination was high, lower friendship quality predicted more risky behavior. When perceived discrimination was low, higher friendship quality predicted more risky behavior. Additionally, lower positive quality relationships and higher perceived discrimination predicted higher risky behavior.

Finally, the three-way interaction among positive friendship quality, perceived discrimination, and gender was significant ( $b = 0.15$ ,  $p = 0.03$ ), see Figure 5. For boys, when friendships were high in positive quality, both high and low levels of perceived discrimination had similar influences on risky behavior. However, when friendships were low in positive quality and perceived discrimination was high, levels of risky behavior were higher. Therefore, friendship quality buffered the negative effects of perceived discrimination on risky behavior for boys. For girls, there did not appear to be an interaction between positive friendship quality and perceived discrimination. However, those with low perceived discrimination reported slightly higher risky behavior.

After results revealed a significant three-way interaction found for positive friendship quality separate regression analyses for boys and girls were conducted. Significant findings were found for boys, see Table 16. However, insignificant findings were found for girls, see Table 17.

For boys, first step was significant,  $F(4, 55) = 7.36$ ,  $p < .001$ ) and the model accounted for 35% of the variance in predicting 8<sup>th</sup> grade risky behavior. The second step was significant,  $F(4, 54) = 7.81$ ,  $p < .000$ ) and accounted for 42% of the variance in predicting 8<sup>th</sup> grade risky behavior. There was a significant main effect for perceived discrimination ( $b = 0.12$ ,  $p = .004$ ), but there was not a significant main effect of positive friendship quality on risky behavior ( $b = -0.08$ ,  $p = 0.14$ ). The interaction between and positive friendship quality and perceived discrimination was significant ( $b = -0.13$ ,  $p = .01$ ), see Figure 6. Perceived discrimination positively predicted risky behavior. Additionally, boys with lower positive quality relationships and higher perceived discrimination had higher risky behavior.

Validation model. The first step of this model was significant,  $F(5, 131) = 11.06$ ,  $p < .001$ ) and the model accounted for 30% of the variance in predicting 8<sup>th</sup> grade risky behavior. The second step was significant,  $F(9, 127) = 10.25$ ,  $p < .001$ ) and accounted for 42% of the variance in predicting 8<sup>th</sup> grade risky behavior. There was a marginally significant main effect for perceived discrimination ( $b = 0.05$ ,  $p = .06$ ), but there was not a significant main effect of validation on risky behavior ( $b = 0.02$ ,  $p = .56$ ). The interaction between validation and gender was not significant ( $b = 0.04$ ,  $p = .48$ ), which indicates an influence of gender on risky behavior. The interactions between perceived discrimination and gender ( $b = -0.13$ ,  $p = .01$ ) and the interaction between validation and perceived discrimination ( $b = -0.15$ ,  $p = .001$ ) were also significant. The influence of perceived discrimination was found in boys, but not in girls. Higher perceived discrimination also predicted higher risky behavior. Additionally, lower validation and higher perceived discrimination predicted higher risky behavior. Finally, the three-way interaction among positive friendship quality, perceived discrimination, and gender was significant ( $b = 0.16$ ,  $p = 0.02$ ), see Figure 7. For boys, when friendships were high in validation, both high and low levels of perceived discrimination had the similar influences on risky behavior. However, when friendships were low in validation and perceived discrimination was high, levels of risky behavior were higher. For girls, there did not appear to be an interaction between validation and perceived discrimination. However, those with low perceived discrimination reported slightly higher risky behavior.

After results revealed a significant three-way interaction found for validation, separate regression analyses for boys and girls were conducted. Significant findings were

found for boys, see Table 16. However, insignificant findings were found for girls, see Table 17.

For boys, the first step was significant,  $F(4,55) = 6.86, p < .001$ ) and the model accounted for 33% of the variance in predicting 8<sup>th</sup> grade risky behavior. The second step was significant,  $F(4,54) = 8.18, p < .001$ ) and accounted for 43% of the variance in predicting 8<sup>th</sup> grade risky behavior. There was a significant main effect for perceived discrimination ( $b = 0.12, p = .005$ ), but there was not a significant main effect of validation on risky behavior ( $b = -0.05, p = .35$ ). The interaction between validation and perceived discrimination was significant ( $b = -0.15, p = .003$ ), see Figure 8. Higher perceived discrimination predicted higher risky behavior. Additionally, boys with friendships with lower validation and higher perceived discrimination predicted higher risky behavior.

Guidance model. The first step of this model was significant,  $F(5, 131) = 11.13, p < .001$ ) and the model accounted for 30% of the variance in predicting 8<sup>th</sup> grade risky behavior. The second step was significant,  $F(9, 127) = 10.11, p < .001$ ) and accounted for 42% of the variance in predicting 8<sup>th</sup> grade risky behavior. There was a marginally significant main effect for perceived discrimination ( $b = 0.05, p = .07$ ), but there was not a significant main effect of guidance on risky behavior ( $b = -0.02, p = .45$ ). The interaction between guidance and gender was not significant ( $b = 0.07, p = .17$ ), which indicates an influence of gender on risky behavior. The interactions between perceived discrimination and gender ( $b = -0.19, p < .001$ ) and the interaction between guidance and perceived discrimination ( $b = -0.12, p = .002$ ) were also significant. The influence of perceived discrimination was found in boys, but not in girls. Higher perceived

discrimination also predicted higher risky behavior. Additionally, lower guidance and higher perceived discrimination predicted higher risky behavior. Finally, the three-way interaction among guidance, perceived discrimination, and gender was significant ( $b = 0.13, p = 0.02$ ), see Figure 9. For boys, when friendships were high in guidance, both high and low levels of perceived discrimination had the similar influences on risky behavior. However, when friendships were low in guidance and perceived discrimination was high, high levels of risky behavior were higher. For girls, there did not appear to be an interaction between validation and perceived discrimination. However, those with low perceived discrimination reported higher risky behavior.

After results revealed a significant three-way interaction found for guidance, separate regression analyses for boys and girls were conducted. Significant findings were found for boys, see Table 16. However, insignificant findings were found for girls, see Table 17.

For boys, first step was significant,  $F(4,59) = 7.70, p < .001$ ) and the model accounted for 36% of the variance in predicting 8<sup>th</sup> grade risky behavior. The second step was significant,  $F(4,58) = 8.50, p < .001$ ) and accounted for 44% of the variance in predicting 8<sup>th</sup> grade risky behavior. There was a significant main effect for perceived discrimination ( $b = 0.12, p = .003$ ), but there was a marginally significant main effect of guidance on risky behavior ( $b = -0.08, p = .08$ ). The interaction between guidance and perceived discrimination ( $b = -0.12, p = .007$ ) was significant, see Figure 10. Higher perceived discrimination predicted higher risky behavior. Additionally, boys with friendships with lower guidance and higher perceived discrimination predicted higher risky behavior.

## Discussion

The aim of the study was to examine whether positive friendship quality buffered the effects of perceived discrimination on risky behavior and whether negative friendship quality (i.e. conflict) exacerbated the effects of perceived discrimination on risky behavior in African American 8<sup>th</sup> graders. Risky behavior was found to increase from 6<sup>th</sup> to 8<sup>th</sup> grade, which is consistent with previous literature that has shown that risky behavior increases in adolescence (Lerner & Gallabos, 1998; Selfhout, Branje, & Meeus, 2008). However, the overall mean of risky behavior was low, probably due to the fact that risky behavior is likely to continue to increase later on in high school. Perceived racial discrimination was also found to be positively related to risky behavior in both boys and girls. This attests to previous research that has found that perceived discrimination predicts risky behavior (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004). Results also revealed that boys reported significantly more perceived discrimination than girls. Although findings of gender differences in perceived discrimination in African Americans have been mixed, these results confirm previous research on African American and Caribbean youth adolescents, where boys perceived more discrimination compared to girls (Seaton, Caldwell, Sellers, & Jackson, 2008). The authors suggest that this may be because racial discrimination may be more of a threat of power to boys than to girls. That is, boys may be more influenced by racial discrimination because they may feel like their power as a male is threatened in the classroom, whereas this may be less likely for girls where power may not have as large of an influence.

The results of the study partially supported the hypotheses regarding positive friendship quality, but not for negative friendship quality. Positive friendship quality was found to be protective against perceived discrimination on risky behavior only in boys. More specifically, validation and guidance were found to be protective factors against perceived discrimination in boys. Overall, perceived discrimination is associated with the likelihood that youth will engage in risky behavior. However in boys, friendships with positive qualities may give more social support that reduces the negative effects of racial discrimination. The findings for boys support previous findings that friendship quality can act as a protective factor against negative situations such as stress (Thompson, Flood, & Goodvin, 2006), effects of emotional abuse and neglect (Powers, Ressler, & Bradley (2009), and adjustment behavior problems (Waldrip, Malcolm, Jensen-Campbell, 2008). However, there is limited research on protective characteristics of friendship quality in African American adolescents. The present study adds to the existing research on protective factors against perceived discrimination on risky behavior by examining the change in risky behavior from 6<sup>th</sup> to 8<sup>th</sup> grade. The study also underscores the importance of taking a multidimensional approach to studying the effects of friendship quality.

Regarding gender differences, friendship quality was only protective against perceived discrimination on increasing risky behavior in boys and not in girls. After finding that the composite score of positive friendship quality, which included the five positive dimensions of friendship quality (companionship, validation, intimacy, guidance, and conflict resolution), was found to be protective against perceived discrimination on risky behavior in boys, separate regressions were conducted on the five positive dimensions. Significant results were found for validation and guidance in boys. That is,

when boys perceived their friendships as low in validation and caring (e.g. We make each other feel important and special; Cares about my feelings) and also perceived higher racial perceived discrimination, they engaged in more risky behavior. Perceived discrimination was unrelated to risky behavior when the friendships were high in help and guidance (e.g. We help each other with school a lot; We count on each other for good ideas on how to get things done). These particular dimensions of friendship quality are two dimensions that address more active social support, compared to the other positive dimensions which addresses self-disclosure (i.e. intimacy), spending time together (i.e. companionship), and making up with friends (i.e. conflict resolution). These particular qualities in friendships may be especially helpful when adolescents face discrimination in school.

Explanations for the gender differences found may lie in the fact that boys may benefit from friendships differently when faced with perceived racial discrimination. Although it has been found that the relationship between racial discrimination in school and academic outcomes differ by gender (Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008), limited research has been done on gender differences in the relationship between friendship quality and racial discrimination. It is possible that boys may talk to their friends to discuss possible solutions for dealing with racial discrimination. On the other hand, girls may have other resources for dealing with perceived racial discrimination; such as with parents and teachers. For example, if the relationship with the youth's parents is not positive, the youth will be more likely to engage in risky behavior (Lerner & Galambos, 1998). Racial socialization has also been shown to be protective against perceived discrimination on self-esteem (Harris-Britt, Valrie, Kurtz-



Costes, & Rowley, 2007). Talking with parents about discrimination and race provides youth with strategies on how to cope with discrimination. Therefore, positive interpersonal interactions in general may be protective for adolescents. It is also possible that racial identity may be another protective factor that was not examined. For example, Caldwell, Sellers, Bernat, and Zimmerman (2004) found that private regard (e.g. I am happy that I am Black) and father support was associated with less alcohol use.

Another possible explanation for these relationships is the restricted variation in the study variables for girls. Boys reported significantly more perceived discrimination and risky behavior compared to girls and also reported more variability in friendship quality, perceived discrimination, and risky behavior. With more variability in both the independent variable and the dependent variable, the possibility of significant findings increases. Additionally, girls were fairly high in friendship quality across all positive dimensions in 8<sup>th</sup> grade, which may reflect a ceiling effect on the independent variable. Thus, boys may be especially vulnerable to the effects of racial discrimination because of the increased likelihood that their friendships are low in support and validation. Boys with friendships higher in positive qualities did not have the same negative association between discrimination experiences and risky behavior.

The results of this study imply that African American boys and girls benefit from higher quality friendships differently. Despite the fact that girls reported higher quality friendships, boys may use their friends as an important support system when faced racial discrimination. Additionally, although the interaction of friendship quality and perceived discrimination on risky behavior for girls was not significant, there was a marginally significant main effect of validation on risky behavior for girls, where higher validation

(e.g. cares for my feelings, sticks up for me if others talk behind my back) was associated with more risky behavior. Although this may seem counter intuitive, risky behavior is highly social and therefore girls may be more likely to engage in risky behavior with closer friends. However, there may be other factors at play, such as friendship characteristics and life stress that may help to explain this relationship.

The study contributes to research on friendship quality in African American adolescents by examining experiences with racial discrimination in school. There has been limited research on perceived discrimination on African American middle and high school students, despite the fact that it is an important concern in school because of the negative influences on academics (Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008) and psychological adjustment (Fisher et al., 2000; Greene, Way, & Pahl, 2006; Mossakowski, 2003; Seaton, 2010). It is possible that feeling racially discriminated against in school may decrease a sense of fairness and belonging in school. In turn, this may provide less incentives for behaving well in school and promote more delinquent behavior (Mattison & Aber, 2007). Overall, the fact that significant results were found only for boys, demonstrates that close friendships in African American boys are important sources of social support when faced with racial discrimination in school.

#### Limitations and Future Directions

There were a few limitations to this study. First, the sample size was fairly small, especially given that gender differences were examined. However, the strength of the results given the small sample size showed the significance of friendship quality in buffering against perceived racial discrimination. The sample also consisted of African American adolescents from one area in North Carolina, which makes it difficult to

generalize the results to other African American adolescents. That is, the relationship between racial discrimination and risky behavior may work differently in the South. Second, although the study controlled for 6<sup>th</sup> grade risky behavior, enabling the change in risky behavior to be examined, main and interaction effects were only examined in 8<sup>th</sup> grade. Given that risky behavior was found to increase for both boys and girls from 6<sup>th</sup> to 8<sup>th</sup> grade and is known to increase later on in adolescence as well (Lerner & Gallabos, 1998; Selfhout, Branje, & Meeus, 2008), examining the relationship between the interaction of friendship quality and perceived discrimination on risky behavior over time may bring out gender differences later on, such as during high school. For confidentiality reasons, separate scores were not provided for the different types of risky behavior. Therefore, subscales of risky behavior were not able to be analyzed. However, African American adolescents have been found to engage in more sexual behavior and less drug and alcohol use (Steinman & Zimmerman, 2004). Third, the sample was not random, given that the sample was increased by adding the best friend of the participants in the longitudinal sample. This may have influenced the results by having participants that are similar in the variables studied. Finally, the risky behavior only measured low-risk behaviors and did not ask about sexual behavior. This may have influenced the low mean of risky behavior in the sample.

Future research should examine how friendship quality may work with other protective factors against perceived racial discrimination on risky behavior and how this may differ by gender as well as with different types of risky behavior. Past studies have found protective characteristics in parent support (Caldwell, Sellers, Bernat, & Zimmerman, 2004; Wills, Resko, Ainetter, & Mendoza, 2004), and racial identity

(Caldwell, Sellers, Bernat, & Zimmerman, 2004) on different types of risky behavior.

Girls and boys may use different types of support for racial discrimination, given that we only found that friendship quality was protective in boys.

## Conclusion

The present study elucidates gender differences in African American adolescents in how they may use peer and friendship support differently when faced with racial discrimination. African American and Latino adolescents have been shown to report more institutional racial discrimination in school compared to other racial groups (Fisher, Wallace, & Fenton, 2000) and African Americans have been shown to increase in perceived racial discrimination at a steeper rate over time (Greene, Way, & Pahl, 2006). Additionally, perceived discrimination has been shown to influence many negative developmental outcomes other than risky behavior, such as self-esteem, (Greene, Way, & Pahl, 2006), depression (Greene, Way, & Pahl, 2006; Mossakowski, K. N., 2003), and school performance (Stone & Han, 2005). Understanding how we can prevent these negative outcomes from occurring can ensure healthy and positive development of African American adolescents in schools.

## Chapter V

### Conclusion

This dissertation contributes to research on African American friendships in three ways. First, the study examined friendship quality in African American adolescents, a population that has not been studied as extensively in friendship research. Second, it provides a clear picture of dimensionality and gender differences as well in the development of friendship quality across middle school and into high school. Third, all three studies consisted of longitudinal analyses. The longitudinal analyses in Study One enabled the clarification of how the six dimensions of friendship quality to be develop over time. Study Two and Three allowed the change of risky behavior from 6<sup>th</sup> to 8<sup>th</sup> grade to be examined.

Research on friendships is important because of the influence that friends have on adolescent behavior (Berndt, 1992). To address this issue, two of the studies focused on risky behavior. In the 2009 National Youth Risk behavior Survey of 9<sup>th</sup> to 12 graders, the risky behaviors that were most frequently engaged in were getting in a physical fight (31.5%), trying cigarette smoking (46.3%), trying alcohol (72.5%), having alcohol at least one day in the past 30 days (41.8%), and sexual intercourse (46%) (Centers for Disease Control and Prevention, 2009). Additionally, African American youth were found to less likely engage in driving while drinking, smoking cigarettes, and using drugs compared to Latino and White youth. However, they were found more likely to engage in physical fights and sexual intercourse compared to Latino and White youth. Overall,

although risky behavior in adolescence is not a new phenomenon and in most cases viewed as normal (Lerner & Galambos, 1998), it still has possible negative implications on health (e.g. alcohol and tobacco use), academic achievement (Voisin & Neilands, 2010), and more serious criminal offenses later on in life (Herrenkohl, Huang, Kosterman, Hawkins, Catalano, & Smith, 2001).

Study One added to literature on the development of friendship quality in African American adolescents by examining friendship quality across the high school transition. The study also clarified gender differences in friendship quality in the different dimensions of friendship quality. Results showed that boys continued to increase in friendship quality throughout high school and girls started to level off in high school. The majority of significant gender differences were found in 6<sup>th</sup>, 8<sup>th</sup>, and 9<sup>th</sup> grade, yet declined in 10<sup>th</sup> grade. This confirms previous research on gender differences, yet goes further to suggest that the gap between girls and boys starts to close in high school.

Study Two contributed to friendship research in African American adolescents by examining best-friendship dyads. Despite the fact that there were only marginally significant findings, it sheds some light onto whether having a good friend matters when that friend is engaging in risky behavior. In this case, the answer is yes and no. For girls, having a friend who engages in risky behavior when the quality of the friendship is low is more detrimental to risky behavior outcomes than having a good friend who engages in risky behavior. Also results demonstrated that, in girls, having a low quality friendship with a low-risk friend was found to have the least risky behavior. Youths in these situations may be outcasts compared to their peers. As mentioned previously, risky behavior is rarely done alone and is usually done with friends (Selfhout, Branje, &

Meeus, 2008). Therefore, there may be less opportunities to engage in risky behavior for these adolescents. However, they may be more likely to experience more psychological maladjustment, such as depressive symptoms (Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006). For boys, it is also not helpful to have a high quality friendship with a friend who engages in risky behavior. Overall, spending time with friends who are bad influences is not advantageous, but bad friends who are bad influences are much worse.

The research on friendship quality has been shown to be quite unclear; particularly regarding the protective factors. As discussed previously, this may be largely due to measurement inconsistencies across research studies. It is also likely that there are many other factors contributing to the protective nature of friendship quality, such as stability (Berndt, 1989). However, the results of Study Three suggest that friendship quality can be protective against perceived discrimination in boys. Overall, research continues to show the complex nature of friendships, especially regarding gender differences.

Each study emphasized the importance of studying friendship quality multi-dimensionally. Study One illustrated how each dimension develops differently for boys and girls. Both Study Two and Three demonstrated that the lack of positive quality in friendships is more detrimental than the presence of negative quality (i.e. conflict) in both boys and girls. This confirms previous suggestions that conflict may in fact have positive influences on the development of friendships (Piaget, 1932). Additionally, the more active types of social support (i.e. validation and guidance) were shown to be more helpful in buffering against racial discrimination in boys compared to the other dimensions (i.e. companionship, intimacy, and conflict resolution). Therefore, for African

American boys, just spending time with your friends is not as beneficial as actually working out your problems with your friends. Across all studies the friendship quality measure (Parker & Asher, 1993) has shown to be useful in understanding the significance of friendships in adolescence.

Future research should explore qualitative methods in examining the development of friendship quality and the potential protective characteristics of friendship quality. For example, Way (1997) found from interviews with adolescent boys that as they grew older, they desired closer friendships with other boys, but had concerns with trust in relationships. Although friendship quality questionnaires can help us understand different dimensions of friendship quality, qualitative research can shed light on specific concerns that adolescents may experience when attempting to maintain friendships.

Racial socialization and racial identity have also been examined as possible protective factors against perceived discrimination on risky behavior (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004; Caldwell, Rafferty, Reischl, De Loney, & Brooks, 2010; Caldwell, Sellers, Bernat, & Zimmerman, 2004). These factors are important when studying African American adolescence because of the possible cultural influences of racial socialization and racial identity on development. Although some studies have looked at the relationship between racial identity and friendship selection (Kao & Vaquera, 2006), how friendship quality and racial identity work together has not been studied extensively. Additionally, parents who socialize their children about race and discrimination, may also be more likely to talk to their children about friendships and how to maintain them, as well as about risky behavior. Future



research should explore how these race-related practices may work with the quality of friendship and the influence on risky behavior.

During adolescence, there is also an emergence of romantic relationships. Future research should examine the development of friendship quality and how it relates to the development of romantic relationships. Harper, Gannon, Watson, Catania, & Dolcini (2004) found in interviews with African American adolescents that close friends were helpful in giving advice in dating partners and in meeting new dating partners. As romantic relationships gain importance, the maintenance of a friendship may be contingent on how friends support each other during the dating process.

Friendship quality may also be dependent on other factors in adolescents' lives, both proximal and distal. Consideration should be given to proximal factors, such as stressful events. Distal factors that should be considered are school and neighborhood effects, such as school climate and whether the adolescent's school is in his or her neighborhood or if he or she has to travel to another town or city for school. Stressful events may be a way for friendships to grow by giving opportunities to demonstrate that they are supportive of each other. On the other hand, stressful events may be detrimental to friendships and exclude the adolescent from received emotional support. School climate may also play a role in friendship quality development. For example, Way and Greene (2006) found that student and teacher relationships were associated with the development of friendship quality, where as the student and teacher relationships increased, the means of general friendship quality decreased. Way and Greene suggested that closer student and teacher relationships over time may isolate youths from their peers by being "teacher's pets." In addition to school climate, neighborhood effects may also

play a role. The proximity of friends with each other may influence the time spent together as well as maintain a friendship.

Regarding selection versus socialization effects, the results from Study Two provide greater support for the socialization theory given that the target child's risky behavior and the best-friend's risky behavior was not correlated with each other for both boys and girls. The results also highlight gender differences in the influences of both socialization and selection effects given that both worked together for girls, but not for boys. Future research should examine how friendship quality, friendship selection, and socialization work together in influencing outcomes such as academic achievement and psychological adjustment.

The results of the third study draws attention to practical implications on health policy research for African American youth, particularly for African American boys. Given that friendship quality was shown to buffer against perceived discrimination in boys, there should be a greater focus on fostering close relationships between boys and emphasizing the importance of caring and helping in friendships. Strengthening social relationship and emphasizing the positive aspects in friendships may promote healthy outcomes for African American adolescents.

## Figures

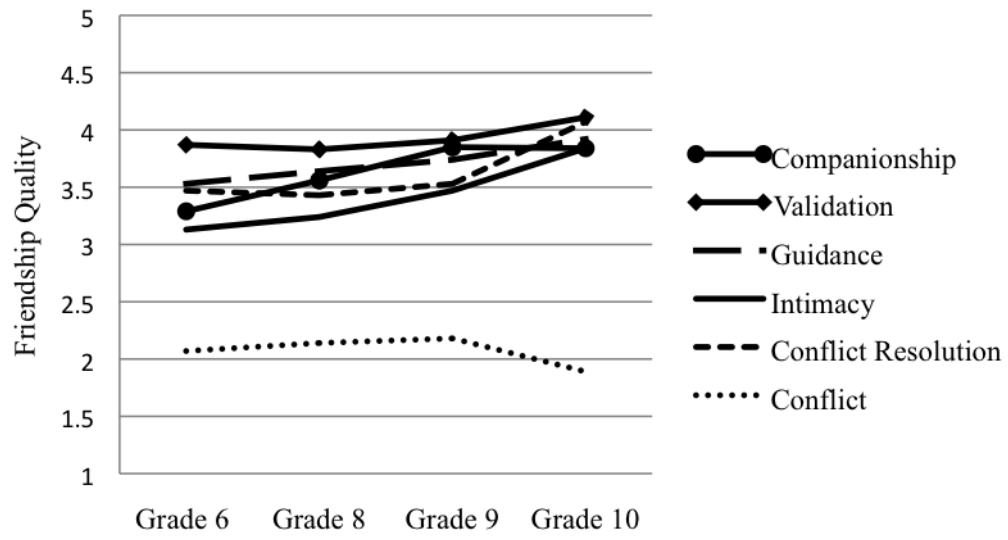


Figure 1. Boys means of friendship quality from Grade 6 to Grade 10

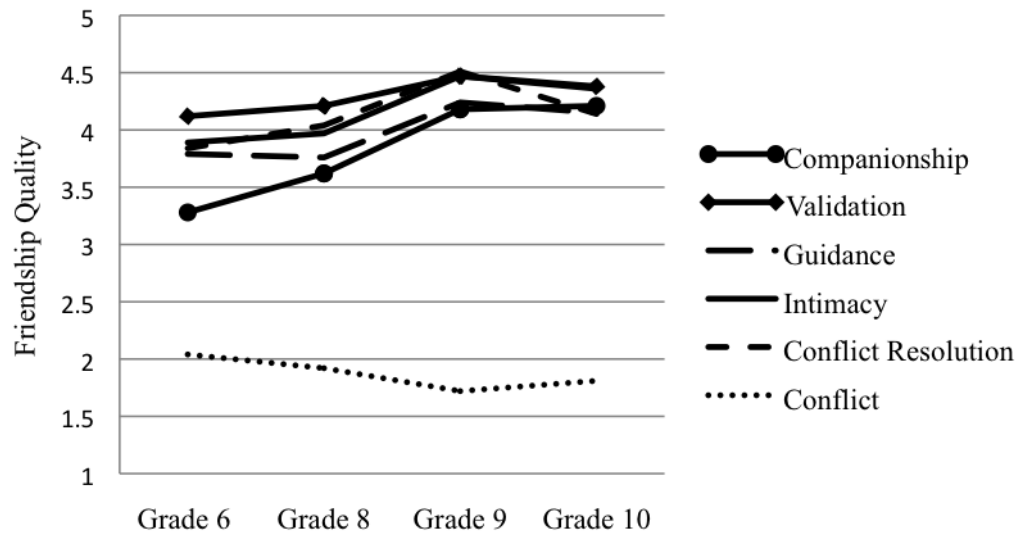
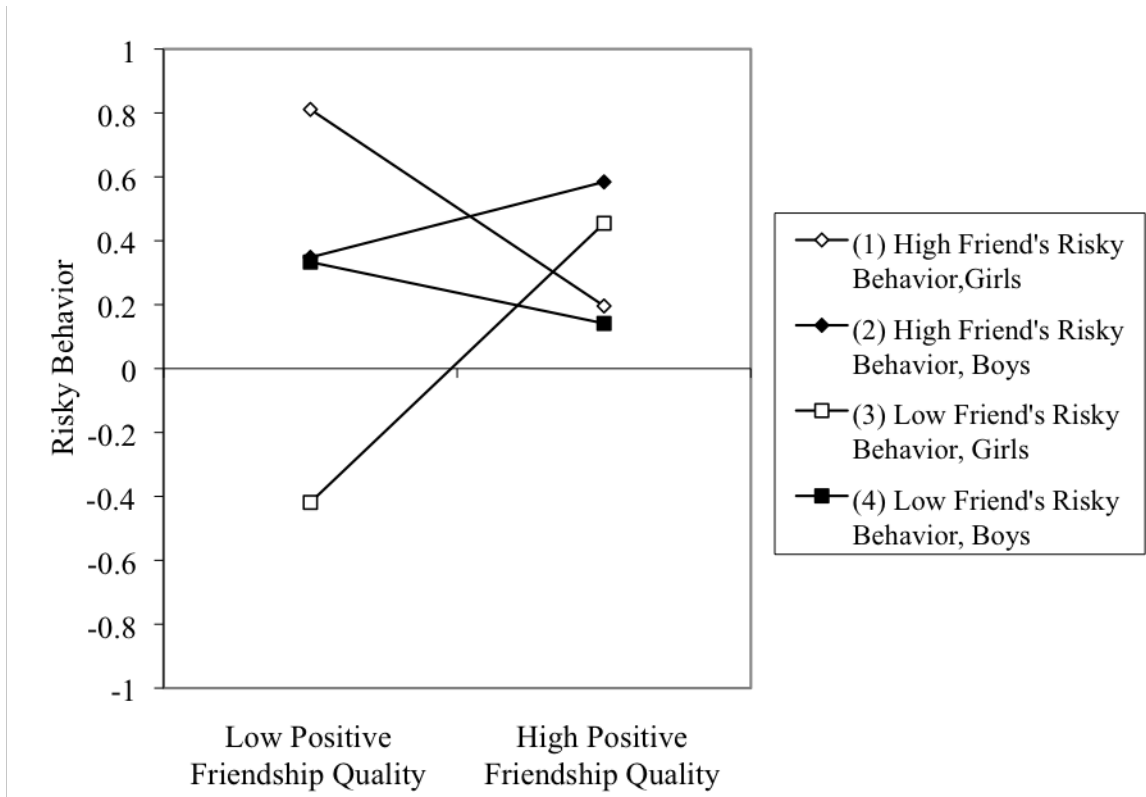
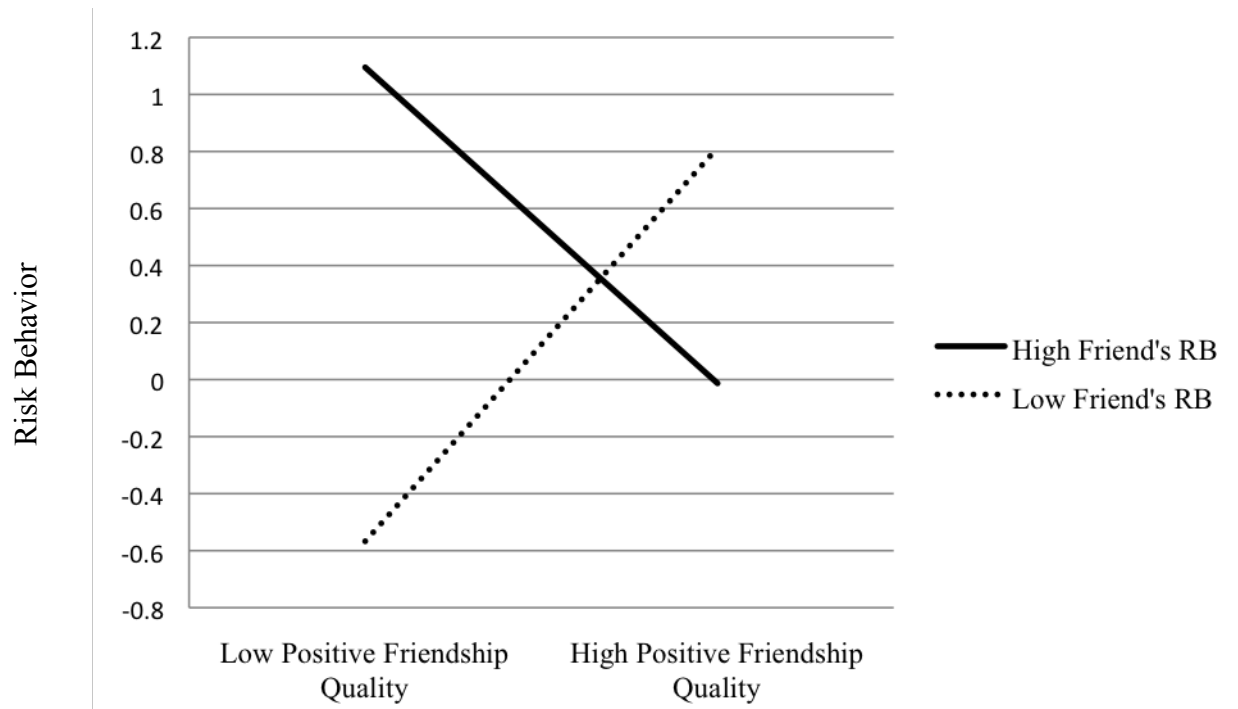


Figure 2. Girls means of friendship quality from Grade 6 to Grade 10



*Figure 3.* Three-way interaction between positive friendship quality, friend's risky behavior, and gender on risky behavior of target child.



*Figure 4.* Two-way interaction between positive friendship quality and friend’s risky behavior on risky behavior of target child for girls.

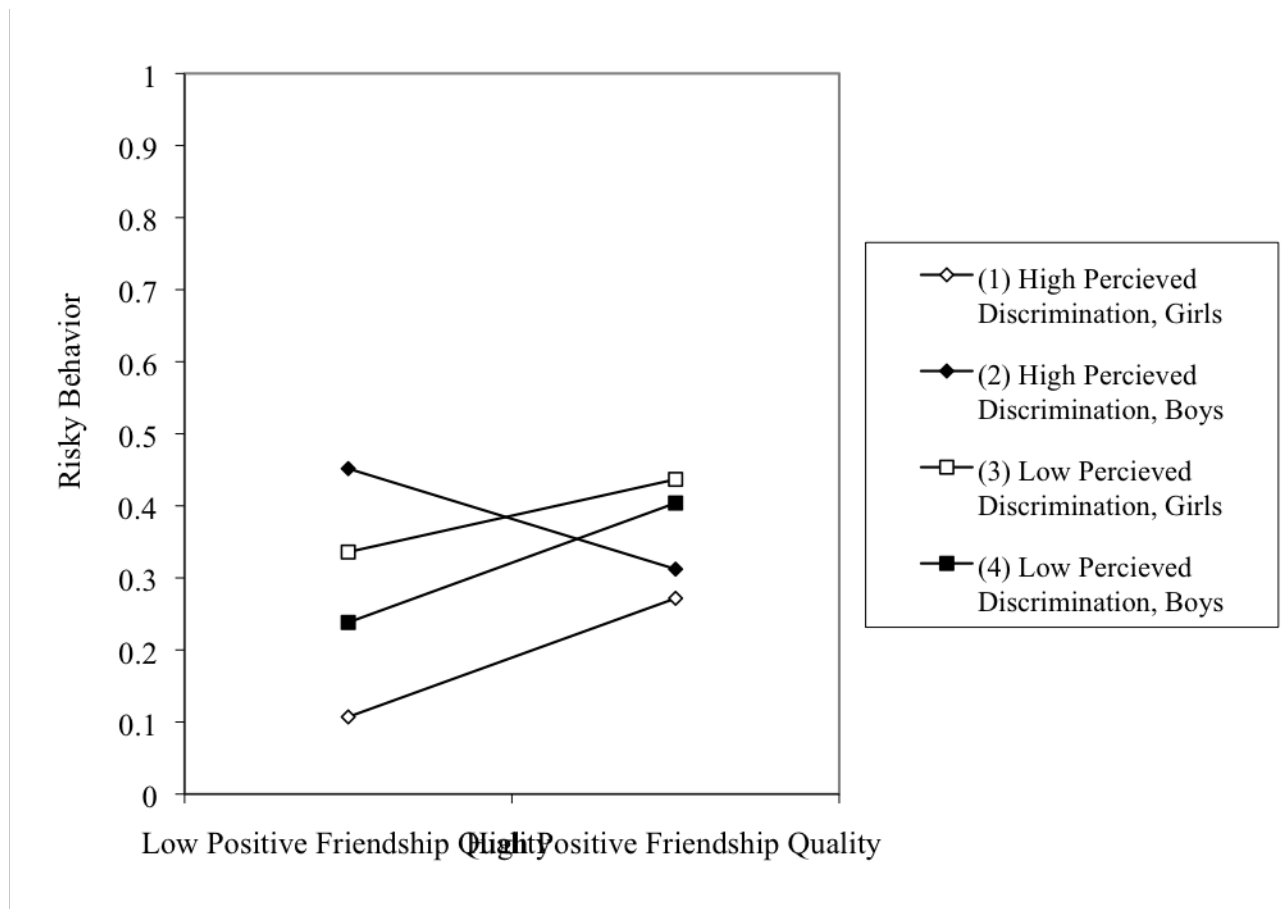


Figure 5. Three-way interaction between positive friendship quality, perceived discrimination, and gender on risky behavior.



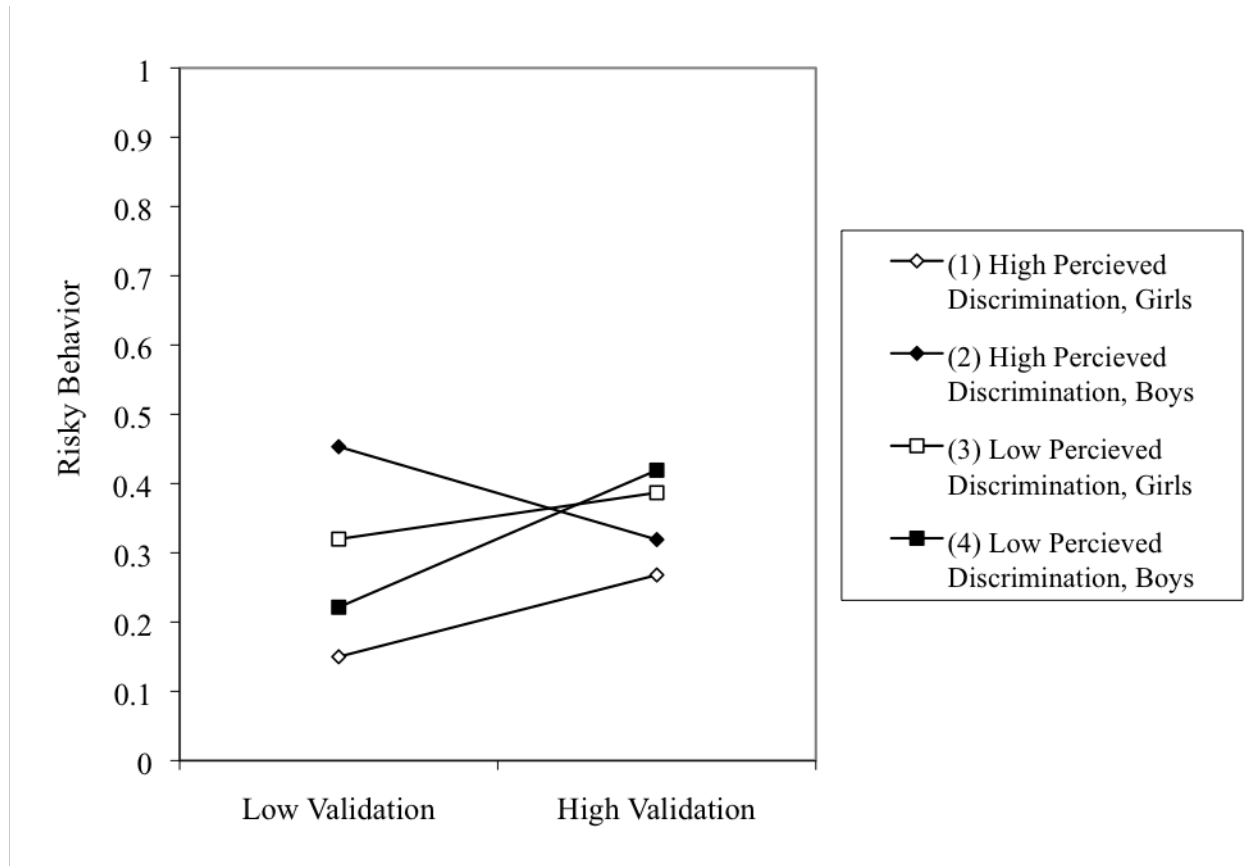
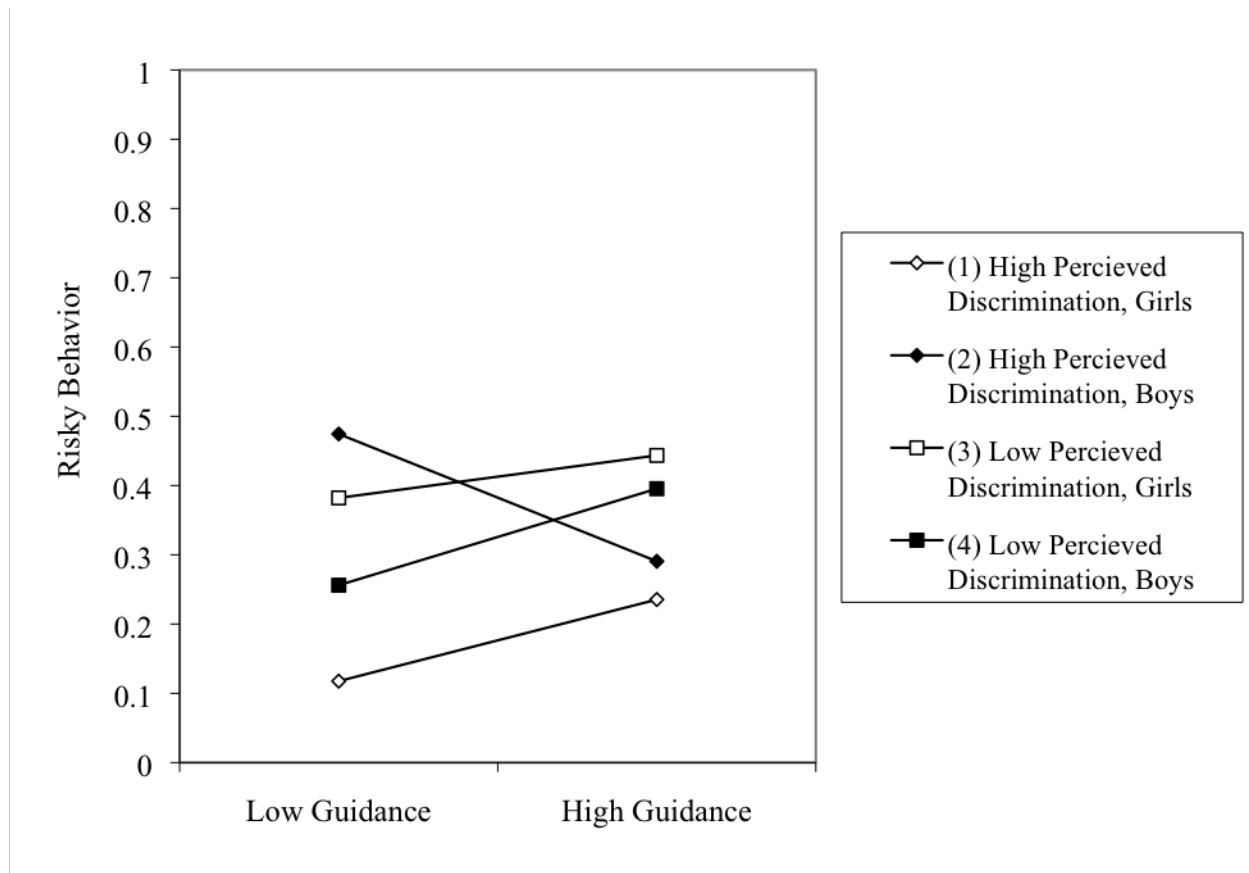
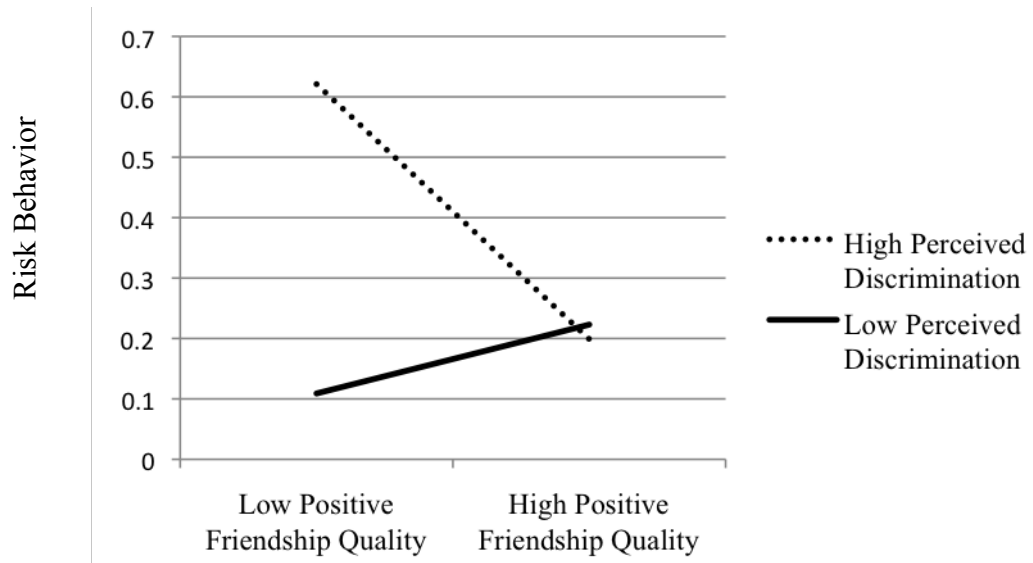


Figure 6. Three-way interaction between validation, perceived discrimination, and gender on risky behavior.



*Figure 7.* Three-way interaction among guidance, perceived discrimination, and gender on risky behavior.



*Figure 8.* Two-way interaction between positive friendship quality and gender on risky behavior for boys.

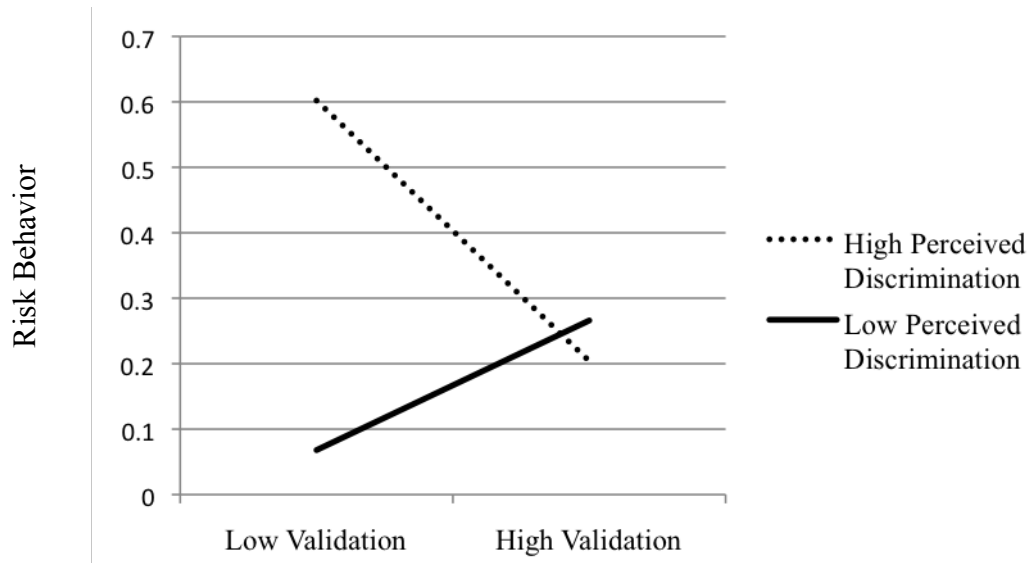


Figure 9. Two-way interaction between validation and gender on risky behavior for boys.

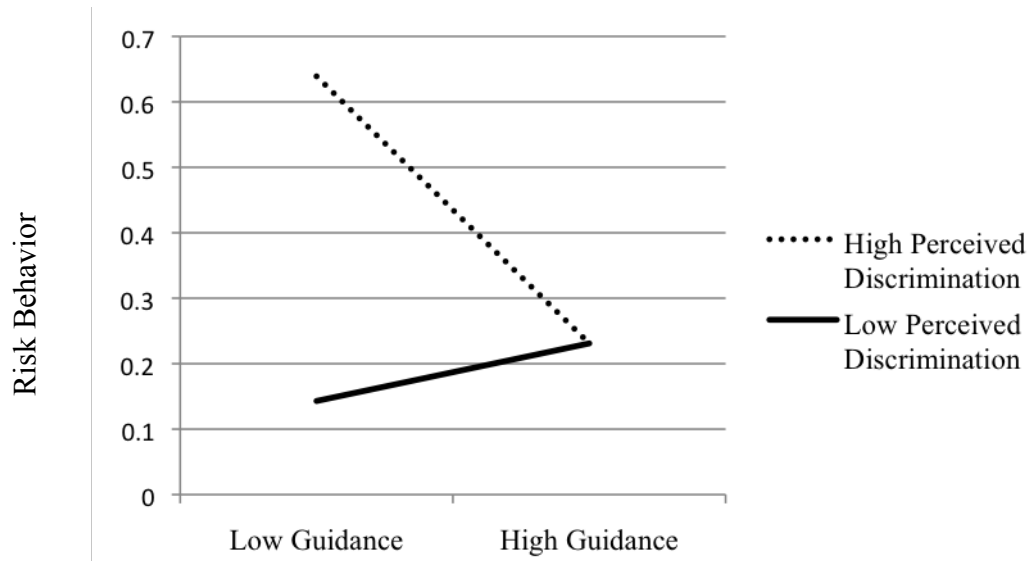


Figure 10. Two-way interaction between guidance and gender on risky behavior for boys.

## Tables

Table 1

*Friendship Quality Measures*

Measure	Friendship Quality Dimensions							
<i>Interview on Supportive Relationships</i> Berndt & Perry (1986)	Play or association	Attachment or self-esteem	Prosocial behavior	Intimacy	Absence of conflicts	Loyalty	---	---
<i>Friendship Qualities Scale</i> (Bukowski & Crick, 1996)	Companionship	Closeness	Help		Security	Conflict	---	---
<i>Friendship Qualities Measure</i> (Grotspeter & Crick, 1996)	Companionship & Recreation	Validation & Caring	Help & Guidance	Intimate Exchange (Subject & Friend intimacy)	Conflict Resolution	Conflict	Aggression (Relational to Friend; Relational to Others; Overt to Friend; Overt to Others)	Exclusivity
<i>Friendship Features Interview for Young Children</i> (Ladd & Kochenderfer, 1996)	---	Validation	Aid	Disclosure of Negative Affect	---	Conflict	---	Exclusivity
<i>Friendship Quality Questionnaire</i> (Parker & Asher, 1993)	Companionship & Recreation	Validation & Caring	Help & Guidance	Intimacy & Self-Disclosure	Conflict Resolution	Conflict & Betrayal	---	---

Table 2

*Boys' Means and Standard Deviations of Each Dimension of Friendship Quality*

Type of Friendship Quality	6 <sup>th</sup> Grade <i>M</i> ( <i>SD</i> )	8 <sup>th</sup> Grade <i>M</i> ( <i>SD</i> )	9 <sup>th</sup> Grade <i>M</i> ( <i>SD</i> )	10 Grade <i>M</i> ( <i>SD</i> )
Companionship/Recreation	3.31 (0.96)	3.56 (0.90)	3.45 (0.81)	3.87 (0.96)
Validation/Caring	3.85 (0.87)	3.70 (0.71)	3.62 (0.78)	4.15 (0.65)
Help/Guidance	3.53 (0.96)	3.53 (0.86)	3.53 (0.80)	3.91 (0.81)
Intimacy/Self-Disclosure	3.13 (1.20)	3.12 (1.01)	3.26 (0.89)	3.83 (0.91)
Conflict Resolution	3.40 (1.02)	3.34 (1.08)	3.30 (0.97)	4.16 (0.65)
Conflict/Betrayal	2.06 (0.74)	2.15 (0.79)	2.25 (0.71)	1.87 (0.81)



Table 3

*Girls' Means and Standard Deviations of Each Dimension of Friendship Quality*

Type of Friendship Quality	6 <sup>th</sup> Grade <i>M</i> ( <i>SD</i> )	8 <sup>th</sup> Grade <i>M</i> ( <i>SD</i> )	9 <sup>th</sup> Grade <i>M</i> ( <i>SD</i> )	10 Grade <i>M</i> ( <i>SD</i> )
Companionship/Recreation	3.36 (0.99)	3.69 (0.93)	4.20 (0.96)	4.20 (0.88)
Validation/Caring	4.15 (0.75)	4.22 (0.71)	4.44 (0.65)	4.38 (0.66)
Help/Guidance	3.86 (0.90)	3.80 (0.93)	4.21 (0.75)	4.17 (0.84)
Intimacy/Self-Disclosure	3.94 (1.05)	3.99 (0.94)	4.46 (0.67)	4.38 (0.86)
Conflict Resolution	3.91 (1.10)	4.02 (1.00)	4.45 (0.69)	4.15 (0.96)
Conflict/Betrayal	1.99 (0.69)	1.92 (0.81)	1.72 (0.64)	1.80 (0.76)

Table 4

*Mean Differences by Grade in Friendship Quality from 6<sup>th</sup> to 10<sup>th</sup> Grades*

Comparison	<i>M</i> difference	95% Confidence Interval	<i>df</i>	<i>t</i>
<i>6<sup>th</sup> Grade-8<sup>th</sup> Grade</i>				
Positive FQ	-0.04	-0.24 0.15	275	-0.42
Companionship	-0.29	-0.51 -0.07	275	-2.60*
Validation	0.02	-0.16 0.21	275	0.25
Guidance	0.03	-0.19 0.25	275	0.30
Intimacy	-0.03	-0.30 0.24	275	-0.21
Conflict Resolution	-0.05	-0.30 0.21	275	-0.35
Conflict	0.01	-0.17 0.19	275	0.07
<i>8<sup>th</sup> Grade-9<sup>th</sup> Grade</i>				
Positive FQ	-0.23	-0.41 -0.47	271	-2.50*
Companionship	-0.30	-0.52 -0.08	271	-2.71**
Validation	-0.12	-0.30 0.06	271	-1.28
Guidance	-0.25	-0.46 -0.04	271	-2.43*
Intimacy	-0.34	-0.58 -0.10	271	-2.77**
Conflict Resolution	-0.25	-0.49 0.00	271	-1.97
Conflict	0.08	-0.10 0.26	271	0.85
<i>9<sup>th</sup> Grade-10<sup>th</sup> Grade</i>				
Positive FQ	-0.11	-0.28 0.05	270	-1.33
Companionship	-0.08	-0.29 0.13	270	-0.72
Validation	-0.14	-0.30 0.03	270	-0.64
Guidance	-0.09	-0.28 0.09	270	-0.98
Intimacy	-0.14	-0.35 0.08	270	-1.27
Conflict Resolution	-0.11	-0.33 0.10	270	-1.03
Conflict	0.09	-0.08 0.25	270	1.03

*Note.* \* $p < .05$ , \*\* $p < .01$ ; FQ = Friendship Quality

Table 5

*Mean Differences by Gender in Friendship Quality from 6<sup>th</sup> to 10<sup>th</sup> Grades*

Comparison	<i>M</i> difference	95% Confidence Interval	<i>df</i>	<i>t</i>
<i>6<sup>th</sup> Grade</i>				
Positive FQ	-0.38	-0.66 -0.09	139	-2.64**
Companionship	-0.06	-0.39 0.27	139	-0.35
Validation	-0.29	-0.56 -0.02	139	-2.14*
Guidance	-0.34	-0.65 -0.03	139	-2.14*
Intimacy	-0.81	-1.19 -0.43	139	-4.20***
Conflict Resolution	-0.45	-0.81 -0.10	139	-2.51*
Conflict	0.06	-0.18 0.31	139	0.53
<i>8<sup>th</sup> Grade</i>				
Positive FQ	-0.48	-0.74 -0.22	134	-3.68***
Companionship	-0.13	-0.44 0.18	134	-0.82
Validation	-0.52	-0.77 -0.28	134	-4.25***
Guidance	-0.26	-0.57 0.04	134	-1.68
Intimacy	-0.87	-1.20 -0.53	134	-5.17***
Conflict Resolution	-0.68	-1.03 -0.32	134	-3.78***
Conflict	0.23	-0.43 0.51	134	1.67
<i>9<sup>th</sup> Grade</i>				
Positive FQ	-0.86	-1.10 -0.63	132	-7.40***
Companionship	-0.66	-0.10 -0.35	132	-4.20***
Validation	-0.81	-1.10 -0.60	132	-6.61***
Guidance	-0.70	-0.94 -0.41	132	-5.00***
Intimacy	-1.20	-1.50 -0.93	132	-8.90***
Conflict Resolution	-1.15	-1.43 -0.90	132	-7.97***
Conflict	0.53	0.30 0.77	132	4.56***
<i>10<sup>th</sup> Grade</i>				
Positive FQ	-0.30	-0.57 -0.01	106	-2.10*
Companionship	-0.33	-0.70 0.02	106	-1.90
Validation	-0.23	-0.50 0.30	106	-1.80
Guidance	-0.30	-0.60 0.70	106	-1.60
Intimacy	-0.54	-0.90 -0.20	106	-3.20**
Conflict Resolution	0.12	-0.40 0.40	106	0.10
Conflict	0.10	-0.23 0.40	106	0.50 <sup>^</sup>

*Note.*  $p < .10^{\wedge}$ ,  $p < .05^*$ ,  $p < .01^{**}$ ,  $p < .001^{***}$ ; FQ = Friendship Quality

Table 6

*Coding Scheme for the Two-Piece Hierarchical Linear Models*

Coded Variable	Grade Intervals			
	6 <sup>th</sup> Grade	8 <sup>th</sup> Grade	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade
a <sub>1t</sub>	0	2	3	3
a <sub>2t</sub>	0	0	0	1

*Note.* The discontinuity in the outcome variable occurred at 9<sup>th</sup> Grade.

Table 7

*Results of the Two-Piece Hierarchical Linear Models for the Development of Friendship**Quality Across 6<sup>th</sup> to 10<sup>th</sup> grades*

Fixed Parameter	Coefficient	SE	t ratio	df	p
<b>Companionship</b>					
Gender ( $\beta_{01}$ )	-0.03	0.16	-0.18	136	0.86
Period 1 ( $\pi_1$ )					
Slope ( $\beta_{10}$ )	0.13	0.08	1.66	515	0.10
Gender ( $\beta_{11}$ )	0.27	0.12	2.54	515	0.01*
Period 2 ( $\pi_2$ )					
Slope ( $\beta_{20}$ )	0.22	0.16	1.41	515	0.16
Gender ( $\beta_{21}$ )	-0.16	0.20	-0.79	515	0.43
<b>Validation</b>					
Gender ( $\beta_{01}$ )	0.28	0.14	2.06	136	0.000***
Period 1 ( $\pi_1$ )					
Slope ( $\beta_{10}$ )	-0.09	0.06	-1.37	515	0.17
Gender ( $\beta_{11}$ )	0.23	0.08	3.06	515	0.003**
Period 2 ( $\pi_2$ )					
Slope ( $\beta_{20}$ )	0.40	0.10	3.95	515	0.000***
Gender ( $\beta_{21}$ )	-0.43	0.13	-3.35	515	0.001**
<b>Guidance</b>					
Gender ( $\beta_{01}$ )	0.26	0.16	1.62	136	0.11
Period 1 ( $\pi_1$ )					
Slope ( $\beta_{10}$ )	0.02	0.07	0.28	515	0.78
Gender ( $\beta_{11}$ )	0.15	0.09	1.65	515	0.10
Period 2 ( $\pi_2$ )					
Slope ( $\beta_{20}$ )	0.29	0.13	2.28	515	0.02*
Gender ( $\beta_{21}$ )	-0.24	0.16	-1.50	515	0.13
<b>Intimacy</b>					
Gender ( $\beta_{01}$ )	0.77	0.19	4.00	136	0.000***
Period 1 ( $\pi_1$ )					
Slope ( $\beta_{10}$ )	0.09	0.09	1.02	515	0.31
Gender ( $\beta_{11}$ )	0.17	0.11	1.52	515	0.13
Period 2 ( $\pi_2$ )					
Slope ( $\beta_{20}$ )	0.48	0.15	3.12	515	0.002**
Gender ( $\beta_{21}$ )	-0.48	0.19	-2.55	515	0.01*
<b>Conflict Resolution</b>					
Gender ( $\beta_{01}$ )	0.46	0.17	2.64	136	0.01*
Period 1 ( $\pi_1$ )					
Slope ( $\beta_{10}$ )	-0.03	0.09	-0.35	515	0.72
Gender ( $\beta_{11}$ )	0.32	0.11	2.96	515	0.004**
Period 2 ( $\pi_2$ )					
Slope ( $\beta_{20}$ )	0.76	0.18	4.13	515	0.000***
Gender ( $\beta_{21}$ )	-1.03	0.22	-4.72	515	0.000***
<b>Conflict</b>					
Gender ( $\beta_{01}$ )	-0.06	0.12	-0.47	136	0.64
Period 1 ( $\pi_1$ )					
Slope ( $\beta_{10}$ )	0.10	0.06	1.58	515	0.11
Gender ( $\beta_{11}$ )	-0.24	0.07	-3.22	515	0.002**
Period 2 ( $\pi_2$ )					
Slope ( $\beta_{20}$ )	-0.33	0.12	-2.72	515	0.007**
Gender ( $\beta_{21}$ )	0.38	0.15	2.50	515	0.01*

Note.  $p < .05^*$ ,  $p < .01^{**}$ ,  $p < .001^{***}$

Table 8

*Means and Standard Deviations for Variables for Target Children*

Variable	<i>M (SE)</i>
Target Child SES	\$39,421 (\$31,858)
6 <sup>th</sup> Grade Positive Friendship Quality	
Total	3.67 (0.77)
Boys	3.53 (0.72)
Girls	3.89 (0.67)
6 <sup>th</sup> Grade Companionship/Recreation	
Total	3.34 (0.97)
Boys	3.31 (1.03)
Girls	3.37 (0.92)
6 <sup>th</sup> Grade Validation/Support	
Total	4.02 (0.74)
Boys	3.91 (0.86)
Girls	4.12 (0.64)
6 <sup>th</sup> Grade Help/Guidance	
Total	3.71 (0.93)
Boys	3.56 (1.01)
Girls	3.83 (0.86)
6 <sup>th</sup> Grade Intimacy/Self-Disclosure	
Total	3.50 (1.12)
Boys	3.24 (1.19)
Girls	3.72 (1.04)
6 <sup>th</sup> Grade Conflict/Betrayal	
Total	2.01 (0.70)
Boys	2.05 (0.74)
Girls	1.95 (0.65)
6 <sup>th</sup> Grade Conflict Resolution	
Total	3.64 (1.06)
Boys	3.40 (1.02)
Girls	3.83 (1.07)
6 <sup>th</sup> Grade Risky Behavior	
Total	0.40 (0.34)
Boys	0.40 (0.32)
Girls	0.40 (0.36)
8 <sup>th</sup> Grade Risky Behavior	
Total	0.48 (0.32)
Boys	0.53 (0.34)
Girls	0.43 (0.32)

Table 9

*Means and Standard Deviations for Variables for Friends of Target Children*

Variable	<i>M (SE)</i>
Friend SES	\$46,464 (\$45,277)
6 <sup>th</sup> Grade Risky Behavior	
Total	0.29 (0.94)
Boys	0.62 (1.34)
Girls	0.03 (0.13)

Table 10

*Correlations Between Study Variables For Study Two*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. SES	-											
2. Friend SES	0.15	-										
3. Positive Friendship Quality	-0.02	-0.21	-									
4. Companionship	-0.05	-0.15	0.75**	-								
5. Validation	-0.01	-0.13	0.77**	0.68**	-							
6. Guidance	0.02	-0.09	0.83**	0.80**	0.76**	-						
7. Intimacy	0.06	-0.20	0.80**	0.69**	0.79**	0.83**	-					
8. Conflict Resolution	-0.07	-0.14	0.61**	0.39**	0.58**	0.56**	0.60**	-				
9. Conflict	-0.24	0.01	-0.17	-0.24	-0.38**	-0.16	-0.21	-0.19	-			
10. 6 <sup>th</sup> Grade Risky Behavior	0.16	0.27*	-0.11	-0.05	-0.09	0.09	-0.08	-0.11	-0.01	-		
11. 8 <sup>th</sup> Grade Risky Behavior	0.01	0.20	-0.07	0.08	0.03	0.17	0.13	-0.02	0.23	0.51**	-	
12. Friend 6 <sup>th</sup> Grade Risky Behavior	-0.03	-0.01	-0.03	-0.15	0.06	-0.13	-0.14	-0.08	0.32	-0.18	0.06	-

*Note.* \* $p < .05$ ; \*\* $p < .01$



Table 11

*Hierarchical Regression Analyses of 6<sup>th</sup> Grade Positive Friendship Quality and the Friend's Risky Behavior in 6<sup>th</sup> Grade Predicting 8<sup>th</sup> Grade Risky Behavior*

Variable	<i>b</i>	<i>SE b</i>	<i>b*</i>	<i>R</i> <sup>2</sup>	<i>F</i>
<i>Total Sample</i>					
Step1: SES	-8.40 <sup>-7</sup>	0.00	-0.08	0.31	5.12**
Gender	-0.09	0.07	-0.14		
6 <sup>th</sup> Grade Risky Behavior	0.52***	0.11	0.56		
Positive Friendship Quality	0.01	0.05	0.03		
Friend's Risky Behavior	0.13	0.12	0.13		
Step2: SES	4.26 <sup>-7</sup>	0.00	-0.04	0.39	3.72**
Gender	-0.07	0.08	-0.10		
6 <sup>th</sup> Grade Risky Behavior	0.52***	0.11	0.55		
Positive Friendship Quality	-0.06	0.08	-0.14		
Friend's Risky Behavior	0.11	0.16	0.11		
PFQ x Gender	0.07	0.12	0.11		
FRB x Gender	0.18	0.32	0.09		
PFQ x FRB	0.23	0.31	0.13		
PFQ x FRB x Gender	-0.83 <sup>†</sup>	0.46	-0.34		
<i>Girls</i>					
Step 1: SES	-2.32 <sup>-6</sup>	0.00	-0.18	0.27	2.70 <sup>†</sup>
6 <sup>th</sup> Grade Risky Behavior	0.48**	0.15	0.58		
Positive Friendship Quality	0.07	0.08	0.15		
Friend's Risky Behavior	0.21	0.24	0.15		
Step 2: SES	-2.18 <sup>-6</sup>	0.00	-0.17	0.36	3.08*
6 <sup>th</sup> Grade Risky Behavior	0.46**	0.14	0.55		
Positive Friendship Quality	-0.03	0.09	-0.06		
Friend's Risky Behavior	0.34	0.24	0.25		
PFQ x FRB	-0.62 <sup>†</sup>	0.33	-0.36		
<i>Boys</i>					
Step 1: SES	2.91 <sup>-6</sup>	0.00	0.04	0.45	4.79**

6 <sup>th</sup> Grade Risky Behavior	0.70***	0.17	0.66		
Positive Friendship Quality	-0.09	0.07	-0.19		
Friend's Risky Behavior	0.03	0.21	0.02		
Step 2: SES	2.86 <sup>-7</sup>	0.00	0.04	0.46	3.70
6 <sup>th</sup> Grade Risky Behavior	0.69**	0.17	0.65		
Positive Friendship Quality	-0.09	0.08	-0.18		
Friend's Risky Behavior	0.05	0.22	0.04		
PFQ x FRB	0.11	0.33	0.06		

*Note.* †  $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ;  $b$  = unstandardized regression coefficients;  $b^*$  = standardized regression coefficients; PFQ = Positive Friendship Quality; FRB = Friend's Risky Behavior

Table 12

*Hierarchical Regression Analyses of 6<sup>th</sup> Grade Negative Friendship Quality (Conflict)**and the Friend's Risky Behavior in 6<sup>th</sup> Grade Predicting 8<sup>th</sup> Grade Risky Behavior*

Variable	<i>b</i>	<i>SE b</i>	<i>b*</i>	<i>R</i> <sup>2</sup>	<i>F</i>
<i>Total Sample</i>					
Step1: SES	-3.76 <sup>-7</sup>	0.00	-0.04	0.34	5.84**
Gender	-0.09	0.07	-0.14		
6 <sup>th</sup> Grade Risky Behavior	0.50***	0.11	0.53		
Conflict	0.09	0.05	0.19		
Friend's Risky Behavior	0.05	0.16	0.04		
Step 2: SES	-6.20 <sup>-7</sup>	0.00	-0.06	0.41	3.94**
Gender	-0.05	0.08	-0.08		
6 <sup>th</sup> Grade Risky Behavior	0.56***	0.11	0.60		
Conflict	0.03	0.08	0.05		
Friend's Risky Behavior	0.01	0.23	0.01		
Conflict x Gender	0.01	0.12	0.01		
FRB x Gender	0.25	0.32	0.13		
Conflict x FRB	-0.07	0.30	-0.04		
Conflict x FRB x Gender	-0.70	0.51	-0.24		

*Note.* †  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; *b* = unstandardized regression coefficients; *b\** = standardized regression coefficients; FRB = Friend's Risky Behavior

Table 13

*Means and Standard Deviations for Study Variables For Study Three*

<i>Variable</i>	<i>Total Sample</i>	<i>Boys</i>	<i>Girls</i>
Positive Friendship Quality	3.79 (0.77)	3.54 (0.70)	3.98 (0.77)
Companionship	3.64 (0.91)	3.58 (0.88)	3.69 (0.93)
Validation	4.00 (0.74)	3.72 (0.69)	4.22 (0.71)
Guidance	3.70 (0.89)	3.57 (0.82)	3.80 (0.92)
Intimacy	3.64 (1.03)	3.18 (0.97)	4.00 (0.94)
Conflict	2.02 (0.80)	2.14 (0.78)	4.03 (0.99)
Conflict Resolution	3.75 (1.07)	3.37 (1.06)	4.04 (0.99)
Perceived Discrimination	1.92 (0.81)	2.13 (0.92)	1.75 (0.67)
6 <sup>th</sup> Grade Risky Behavior	0.37 (0.27)	0.41 (0.25)	0.34 (0.29)
8 <sup>th</sup> Grade Risky Behavior	0.47 (0.28)	0.53 (0.33)	0.42 (0.23)
SES	43,543.03 (37,872.54)	48,987.53 (47,551.46)	39,300.56 (27,743.42)

Table 14

*Correlations Between Study Variables For Study Three*

Variable	1	2	3	4	5	6	7	8	9	10	11
1. SES	-										
2. Positive FQ	-0.20*	-									
3. Companionship	-0.16	0.76**	-								
4. Validation	-0.13	0.91**	0.56**	-							
5. Guidance	-0.22**	0.91**	0.74**	0.73**	-						
6. Intimacy	-0.22**	0.89**	0.56**	0.83**	0.71**	-					
7. Conflict	-0.09	-0.40**	-0.25**	-0.47**	-0.35**	-0.32**	-				
8. Conflict Resolution	-0.08	0.74**	0.49**	0.62**	0.60**	0.62**	-0.27**	-			
9. Perceived Discrimination (8 <sup>th</sup> Grade)	-0.08	-0.10	-0.002	-0.18*	-0.03	-0.10	0.18	-0.15	-		
10. Risky Behavior (6 <sup>th</sup> Grade)	-0.03	-0.06	-0.07	-0.09	-0.06	-0.02	0.12	-0.05	0.24**	-	
11. Risky Behavior (8 <sup>th</sup> Grade)	-0.06	-0.06	-0.007	-0.06	-0.09	-0.02	0.08	-0.02	0.29**	0.50**	-

*Note.* \* $p < .05$ , \*\* $p < .01$

Table 15

*Regression Analyses Examining the Interaction Between Friendship Quality Perceived  
Discrimination, and Gender on Risky Behavior in 8<sup>th</sup> Grade*

Variable	<i>b</i>	<i>SE b</i>	<i>b*</i>	<i>R</i> <sup>2</sup>	<i>F</i>
<i>Positive Friendship Quality</i>					
Step 1:SES	-5.19 <sup>-7</sup>	0.00	-0.07	0.27	10.97***
Gender	-0.07	0.05	-0.12		
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.08	0.45		
8 <sup>th</sup> Grade Positive Friendship Quality	0.002	0.03	0.01		
8 <sup>th</sup> Grade Perceived Discrimination	0.05 <sup>†</sup>	0.03	0.15		
Step 2:SES	-3.59 <sup>-9</sup>	0.00	0.001	0.37	9.86***
Gender	-0.07	0.04	-0.12		
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.08	0.46		
8 <sup>th</sup> Grade Positive Friendship Quality	-0.03	0.05	-0.09		
8 <sup>th</sup> Grade Perceived Discrimination	0.12***	0.03	0.34		
PFQ x Gender	0.08	0.06	0.17		
PD x Gender	-0.16**	0.05	-0.29		
PFQ x PD	-0.13**	0.04	-0.29		
PFQ x PD x Gender	0.15*	0.07	0.21		
<i>Companionship and Recreation</i>					
Step 1:SES	-5.04 <sup>-7</sup>	0.00	-0.07	0.30	10.99***
Gender	-0.07	0.04	-0.12		
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.08	0.45		
8 <sup>th</sup> Grade Companionship	0.01	0.02	0.02		
8 <sup>th</sup> Grade Perceived Discrimination	0.05 <sup>†</sup>	0.03	0.14		
Step 2:SES	-2.47 <sup>-7</sup>	0.00	-0.03	0.36	7.93***
Gender	-0.06	0.04	-0.11		
6 <sup>th</sup> Grade Risky Behavior	0.52***	0.08	0.50		
8 <sup>th</sup> Grade Companionship	-0.04	0.04	-0.11		
8 <sup>th</sup> Grade Perceived Discrimination	0.11**	0.04	0.31		

Companionship x Gender	0.07	0.05	0.17		
PD x Gender	-0.16**	0.06	-0.29		
Companionship x PD	0.03	0.04	0.09		
Companionship x PD x Gender	0.004	0.07	0.01		
<i>Validation and Caring</i>					
Step 1: SES	-4.93 <sup>-7</sup>	0.00	-0.07	0.30	11.06***
Gender	-0.08	0.05	-0.13		
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.08	0.45		
8 <sup>th</sup> Grade Validation	0.02	0.03	0.05		
8 <sup>th</sup> Grade Perceived Discrimination	0.05 <sup>†</sup>	0.03	0.15		
Step 2: SES	3.574 <sup>-8</sup>	0.00	0.01	0.38	10.25***
Gender	-0.08	0.04	-0.13		
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.08	0.45		
8 <sup>th</sup> Grade Validation	0.02	0.05	0.04		
8 <sup>th</sup> Grade Perceived Discrimination	0.10**	0.03	0.28		
Validation x Gender	0.04	0.06	0.08		
PD x Gender	-0.13*	0.05	-0.24		
Validation x PD	-0.15***	0.04	-0.33		
Validation x PD x Gender	0.16*	0.07	0.20		
<i>Help and Guidance</i>					
Step 1: SES	-6.14 <sup>-7</sup>	0.00	-0.08	0.30	11.13***
Gender	-0.06	0.04	-0.11		
6 <sup>th</sup> Grade Risky Behavior	0.46***	0.08	0.45		
8 <sup>th</sup> Grade Guidance	-0.02	0.02	-0.06		
8 <sup>th</sup> Grade Perceived Discrimination	0.05 <sup>†</sup>	0.03	0.14		
Step 2: SES	-9.02 <sup>-8</sup>	0.00	-0.01	0.42	10.11***
Gender	-0.07	0.04	-0.12		
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.07	0.46		
8 <sup>th</sup> Grade Guidance	-0.05	0.04	-0.15		
8 <sup>th</sup> Grade Perceived Discrimination	0.14***	0.03	0.39		
Guidance x Gender	0.07	0.05	0.16		

PD x Gender	-0.19**	0.05	-0.33		
Guidance x PD	-0.12**	0.04	-0.31		
Guidance x PD x Gender	0.13*	0.06	0.24		
<i>Intimacy</i>					
Step 1: SES	-4.71 <sup>-7</sup>	0.00	-0.06	0.30	11.04***
Gender	-0.07	0.05	-0.12		
6 <sup>th</sup> Grade Risky Behavior	0.46***	0.08	0.45		
8 <sup>th</sup> Grade Intimacy	0.01	0.02	0.04		
8 <sup>th</sup> Grade Perceived Discrimination	0.05 <sup>†</sup>	0.03	0.15		
Step 2: SES	2.26 <sup>-8</sup>	0.00	0.003	0.36	9.56***
Gender	-0.08	0.04	-0.14		
6 <sup>th</sup> Grade Risky Behavior	0.42***	0.07	0.42		
8 <sup>th</sup> Grade Intimacy	-0.01	0.03	-0.03		
8 <sup>th</sup> Grade Perceived Discrimination	0.12**	0.03	0.33		
Intimacy x Gender	0.05	0.05	0.13		
PD x Gender	-0.15**	0.06	-0.27		
Intimacy x PD	-0.08**	0.03	-0.26		
Intimacy x PD x Gender	0.07	0.05	0.12		
<i>Conflict Resolution</i>					
Step 1: SES	-5.05 <sup>-7</sup>	0.00	-0.07	0.30	11.12***
Gender	-0.08	0.05	-0.13		
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.08	0.45		
8 <sup>th</sup> Grade Conflict Resolution	0.02	0.02	0.06		
8 <sup>th</sup> Grade Perceived Discrimination	0.05 <sup>†</sup>	0.03	0.15		
Step 2: SES	-2.02 <sup>-7</sup>	0.00	-0.03	0.36	8.02***
Gender	-0.07	0.04	-0.11		
6 <sup>th</sup> Grade Risky Behavior	0.52***	0.08	0.50		
8 <sup>th</sup> Grade Conflict Resolution	-0.02	0.03	-0.07		
8 <sup>th</sup> Grade Perceived Discrimination	0.11**	0.04	0.32		
Conflict Resolution x Gender	0.07	0.04	0.18		
PD x Gender	-0.16**	0.06	-0.28		



Conflict Resolution x PD	-0.02**	0.04	-0.05		
Conflict Resolution x PD x Gender	0.07	0.06	0.12		
<i>Conflict and Betrayal</i>					
Step 1: SES	-5.41 <sup>-7</sup>	0.00	-0.07	0.30	10.99***
Gender	-0.06	0.04	-0.11		
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.07	0.45		
8 <sup>th</sup> Grade Conflict	-0.01	0.03	-0.02		
8 <sup>th</sup> Grade Perceived Discrimination	0.05	0.03	0.15		
Step 2: SES	-3.56 <sup>-7</sup>	0.00	-0.05	0.32	7.94***
Gender	-0.06	0.04	-0.11		
6 <sup>th</sup> Grade Risky Behavior	0.52***	0.08	0.50		
8 <sup>th</sup> Grade Conflict	0.02	0.04	0.06		
8 <sup>th</sup> Grade Perceived Discrimination	0.11**	0.04	0.32		
Conflict x Gender	-0.06	0.06	-0.14		
PD x Gender	-0.16**	0.06	-0.29		
Conflict x PD	0.01	0.05	0.03		
Conflict x PD x Gender	-0.08	0.07	-0.12		

*Note.* †  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ;  $b$  = unstandardized regression coefficients;  $b^*$  = standardized regression coefficients; PFQ = Positive Friendship Quality; PD = Perceived Discrimination

Table 16

*Regression Analyses Examining the Interaction Between Friendship Quality (Positive Friendship Quality, Validation, and Guidance) and Perceived Discrimination on Risky Behavior for Boys*

Variable	<i>b</i>	<i>SE b</i>	<i>b*</i>	<i>R</i> <sup>2</sup>	<i>F</i>
<i>Positive Friendship Quality</i>					
Step 1: SES	-2.65 <sup>-7</sup>	0.00	-0.04	0.35	7.36***
6 <sup>th</sup> Grade Risky Behavior	0.52**	0.15	0.40		
Positive Friendship Quality	-0.08	0.05	-0.17		
Perceived Discrimination	0.12**	0.04	0.34		
Step 2: SES	1.25 <sup>-7</sup>	0.00	0.02	0.42	7.81***
6 <sup>th</sup> Grade Risky Behavior	0.48**	0.14	0.36		
Positive Friendship Quality	-0.03	0.05	-0.07		
Perceived Discrimination	0.12**	0.04	0.34		
PFQ x PD	-0.13*	0.05	-0.29		
<i>Validation and Caring</i>					
Step 1: SES	-7.01 <sup>-7</sup>	0.00	-0.01	0.25	6.28***
6 <sup>th</sup> Grade Risky Behavior	0.44**	0.14	0.36		
Validation	-0.06	0.05	-0.12		
Perceived Discrimination	0.12**	0.04	0.33		
Step 2: SES	2.52 <sup>-7</sup>	0.00	0.04	0.35	7.78***
6 <sup>th</sup> Grade Risky Behavior	0.39**	0.13	0.32		
Validation	0.01	0.05	0.03		
Perceived Discrimination	0.10*	0.04	0.27		
Validation x PD	-0.15**	0.05	-0.37		
<i>Help and Guidance</i>					
Step1: SES	-3.89 <sup>-7</sup>	0.00	-0.06	0.36	7.70***
6 <sup>th</sup> Grade Risky Behavior	0.50**	0.14	0.38		
Guidance	-0.08 <sup>†</sup>	0.05	-0.20		
Perceived Discrimination	0.12**	0.04	0.35		
Step 2: SES	8.51 <sup>-8</sup>	0.00	0.01	0.44	8.50***
6 <sup>th</sup> Grade Risky Behavior	0.47**	0.14	0.36		
Guidance	-0.05	0.04	-0.12		

Perceived Discrimination	0.14*	0.04	0.39
Guidance x PD	-0.12*	0.04	-0.31

*Note.* †  $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ;  $b$  = unstandardized regression coefficients;  $b^*$  = standardized regression coefficients; PFQ = Positive Friendship Quality; PD = Perceived Discrimination

Table 17

*Regression Analyses Examining the Interaction Between Friendship Quality (Positive Friendship Quality, Validation, and Guidance) and Perceived Discrimination on Risky Behavior for Girls*

Variable	<i>b</i>	<i>SE b</i>	<i>b*</i>	<i>R</i> <sup>2</sup>	<i>F</i>
<i>Positive Friendship Quality</i>					
Step 1: SES	-2.64 <sup>-7</sup>	0.00	-0.03	0.34	9.06***
6 <sup>th</sup> Grade Risky Behavior	0.46***	0.08	0.57		
Positive Friendship Quality	0.04	0.03	0.14		
Perceived Discrimination	-0.04	0.04	-0.11		
Step 2: SES	-2.96 <sup>-7</sup>	0.00	-0.04	0.34	7.19***
6 <sup>th</sup> Grade Risky Behavior	0.46***	0.08	0.58		
Positive Friendship Quality	0.05	0.03	0.15		
Perceived Discrimination	-0.04	0.04	-0.12		
PFQ x PD	0.02	0.05	0.04		
<i>Validation and Caring</i>					
Step 1: SES	-2.69 <sup>-7</sup>	0.00	-0.03	0.34	9.39***
6 <sup>th</sup> Grade Risky Behavior	0.45***	0.08	0.57		
Validation	0.06	0.03	0.17		
Perceived Discrimination	-0.03	0.04	-0.09		
Step 2: SES	-3.04 <sup>-7</sup>	0.00	-0.04	0.34	7.43***
6 <sup>th</sup> Grade Risky Behavior	0.46***	0.08	0.57		
Validation	0.06 <sup>†</sup>	0.03	0.17		
Perceived Discrimination	-0.04	0.04	-0.10		
Validation x PD	0.01	0.05	0.03		
<i>Help and Guidance</i>					
Step1: SES	-4.20 <sup>-7</sup>	0.00	-0.05	0.32	8.45***
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.08	0.58		
Guidance	-0.01	0.03	0.05		
Perceived Discrimination	-0.05	0.04	-0.13		
Step 2: SES	-4.62 <sup>-7</sup>	0.00	-0.06	0.32	6.71***
6 <sup>th</sup> Grade Risky Behavior	0.47***	0.08	0.58		
Guidance	0.02	0.03	0.06		

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Perceived Discrimination	-0.05	0.04	-0.14
Guidance x PD	0.01	0.04	0.04

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*Note.* †  $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ;  $b$  = unstandardized regression coefficients;  $b^*$  = standardized regression coefficients; PFQ = Positive Friendship Quality; PD = Perceived Discrimination

## Appendices

## Appendix A

### Friendship Quality Questionnaire

#### Items and Subscales

##### Validation and Caring

- Makes me feel good about my ideas
- Tells me I am good at things
- Make each other feel important and special
- Tells me I am pretty smart
- Says "I'm sorry" if [he/she] hurts my feelings
- Sticks up for me if others talk behind my back
- Has good ideas about games to play
- Cares about my feelings
- Would like me even if others didn't
- Does not tell others my secrets

##### Help and Guidance

- Helps me so I can get done quicker
- Help each other with schoolwork a lot
- Gives advice with figuring things out
- Count on each other for good ideas on how to get things done
- Come up with good ideas on ways to do things
- Loan each other things all the time
- Share things with each other
- Do special favors for each other
- Help each other with chores a lot

##### Companionship and Recreation

- Always sit together at lunch
- Always pick each other as partners for things
- Always play together at recess
- Do fun things together a lot
- Go to each others' houses

##### Intimate Exchange

- Always tell each other our problems
- Talk about the things that make us sad
- Talk to her when I'm mad about something that happened to me
- Tell each other secrets
- Tell each other private things
- Talk about how to make ourselves feel better if we are mad at each other

##### Conflict Resolution

- Make up easily when we have a fight
- Get over our arguments really quickly
- Talk about how to get over being mad at each other

##### Conflict and Betrayal

- Argue a lot
- Fight a lot
- Get mad a lot
- Doesn't listen to me
- Bug each other a lot
- Sometimes says mean things about me to other kids
- Can count on to keep promises

## Appendix B

### Youth Risk Behavior Survey

Variable Name	Variable Description	Values
risky1	RISKY: Ridden in car without seatbelt	0=Never 1=Once or Twice 2=More than Two Times 3=Don't Know
risky2	RISKY: Ridden on bike without helmet	Same as above
risky3	RISKY: Done something dangerous on dare	Same as above
risky4	RISKY: Carried weapon such as gun/knife	Same as above
risky5	RISKY: Threatened to beat up someone	Same as above
risky6	RISKY: Taken part in a gang fight	Same as above
risky7	RISKY: Skpped school without permission	Same as above
risky8	RISKY: Fist fight	Same as above
risky9	RISKY: Set fire in building or other place	Same as above
risky10	RISKY: Hurt an animal on purpose	Same as above
risky11	RISKY: Smoked a cigarette or used tobacco	Same as above
risky12	RISKY: Drunk beer or other alcohol	Same as above
risky13	RISKY: Smoked marijuana	Same as above
risky14	RISKY: Taken or stolen something worth a lot	Same as above
risky15	RISKY: Taken or stolen something worth a little	Same as above
risky16	RISKY: Gotten admission without paying	Same as above
risky17	RISKY: Run away from home	Same as above
risky18	RISKY: Broken into a building to take or steal	Same as above
risky19	RISKY: Purposely damage/destroy others' property	Same as above
risky20	RISKY: Has had sexual intercourse	Same as above
risky21	RISKY: Has had intercourse without a condom	Same as above
add_ver	Version of database obs was added	1, 2, 3 etc.



## Appendix C

### Perception of School Racial Climate Measure

Please circle the answer that best describes what school is like for you.

At school, how often do you feel..

1. that teachers call on you less often than they call on other kids because of your race?
2. that teachers grade you harder than they grade other kids because of your race?
3. that you get disciplined more harshly by teachers than other kids do because of your race?
4. that teachers think you are less smart than you really are because of your race?
5. How stressful is it for you when teachers at your school treat you in these ways?

*Scale:*

*Never*

*A Couple Times Each Year*

*A Couple times Each Month*

*Once or Twice Each Week*

*Everyday*

How often have you felt...

6. that teachers/counselors discourage you from taking certain classes because of your race?

*Scale:*

*My Teachers Do Not Do These Things*

*Not At All Stressful*

*A Little Stressful*

*Somewhat Stressful*

*Quite Stressful*

*Extremely Stressful*

How often do you feel...

7. like you are not picked for certain teams or other school activities because of your race?
8. that you get in fights with some kids because of your race?
9. that kids do not want to hang out with you because of your race?

*Scale:*

*Never*

*Once or Twice*

*Three or Four*

*Five or Six*

*More than Six Times*

10. How stressful is it for you when other kids treat you in these ways?

*Scale:*

*Other Kids Do Not Do These Things*

*Not At All Stressful*

*A Little Stressful*

*Somewhat Stressful*

*Quite Stressful*

*Extremely Stressful*

Think about this past school year. In your 8th grade school, how often ...

11. was there racial tension between school staff members and students of different racial backgrounds?
12. was there racial tension between students of different racial backgrounds?

*Scale:*

*Never*

*A Couple Times Each Year*

*A Couple times Each Month*

*Once or Twice Each Week*

*Everyday*

Here are some questions about what your everyday life is like for you.

Please circle the answer that best describes you.

13. When you walk on the street, people act (circle choice below) they act of kids of other races.

*Scale:*

*Much More Scared of You Than  
A Little More Scared of You Than  
The Same Towards You As  
A Little Less Scared of You As  
Much Less Scared of You As*

14. At the school you go to now, how often have you heard teachers, or other students, put down kids in class by using bad words or expressions about their race?

*Scale:*

*Very Little  
A Little  
Some  
A Fair Amount  
A Lot*

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