PEER VICTIMIZATION AND SCHOOL ADJUSTMENT IN EARLY

ADOLESCENCE: FRIENDS' SOCIAL ADJUSTMENT

AS A MODERATOR

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PEER VICTIMIZATION AND SCHOOL ADJUSTMENT IN EARLY ADOLESCENCE: FRIENDS' SOCIAL ADJUSTMENT AS A MODERATOR

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A Thesis

Submitted to

the Graduate Faculty of

Auburn University

in Partial Fulfillment of the

Requirements for the

Degree of

Masters of Science

Auburn, Alabama
May 9, 2009

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THESIS ABSTRACT

PEER VICTIMIZATION AND SCHOOL ADJUSTMENT IN EARLY ADOLESCENCE: FRIENDS' SOCIAL ADJUSTMENT AS A MODERATOR

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Masters of Science, May 9, 2009
(B.A., Randolph-Macon College, 2007)

112 Typed Pages

Directed by Stephen Erath

Peer victimization is a relatively common occurrence during the middle school years and has been found to be negatively associated with school outcomes. Friends are thought to serve ameliorative functions for adolescents experiencing victimization. The present study sought to determine whether friends' characteristics of prosocial behavior, social anxiety, and peer victimization were associated with participants' school adjustment, and whether these friends' characteristics moderated the association between participants' peer victimization and school adjustment (i.e., academic competence, school liking, loneliness at school). Participants included 319 early adolescents and their mutually reciprocated close friendships (i.e., very best and close friends). Both self- and peer-reported nominations of victimization were measured. Multiple informants were

also used to report on participants' school adjustment and friends' characteristics. Regression analyses revealed that peer victimization (both self- and peer-reports) was negatively associated with participants' school adjustment. Furthermore, as hypothesized, friends' social adjustment and early adolescents' school adjustment were associated. In particular, friends' prosocial behavior, social anxiety, and peer victimization predicted early adolescents' academic competence, but not subjective feelings about school. Moreover, some dimensions of friends' social adjustment protected against school maladjustment in the context of victimization. Specifically, the association between peer-reported victimization and academic competence was attenuated among participants with friends who had high prosocial behavior and low social anxiety and peer victimization, but exacerbated among participants with friends who had low prosocial behavior and high social anxiety and peer victimization. Further, the association between self-reported victimization and loneliness at school was attenuated for those with friends high in prosocial behavior, but exacerbated for those with friends low in prosocial behavior. Implications of these findings and the potential protective and vulnerability functions of friends' characteristics are discussed.

ACKNOWLEDGEMENTS

The author would like to thank Dr. Stephen A. Erath for his continual support and guidance throughout this Master's thesis, as well as her committee members, Dr. Mona El-Sheikh and Dr. Gregory Pettit. The author would also like to express her appreciation for her family and Scott Frantz for their continual support.

Style or journal manual used: APA Style, 5th ed.

Computer software used: Microsoft Word, 2007, SPSS 16.0

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I. INTRODUCTION

School adjustment and academic achievement are important developmental tasks for early adolescents (Masten, 1994) and are thought to be important contributors to their mental health (i.e., social-emotional functioning; Masten & Coatsworth, 1998) and to have important implications for their later life achievements and transitions (as cited in Roeser, Eccles, & Sameroff, 2000). Carnegie Council (1989; 1995) found that 25% to 50% of young people between the ages of 10 and 17 may be at risk for curtailed educational, economic, and social opportunities as a result of skipping or failing school and engaging in high-risk behaviors (as cited in Roeser et al., 2000). Middle school, in particular, is thought to be a prominent institution that could serve to steer early adolescents on a successful path, academically (e.g., motivation to learn and continued engagement in school; Eccles et al., 1996) and socially (e.g., peer relations), as well as prevent exacerbation of mental health problems (as cited in Roeser et al., 2000).

In middle school, there are a number of factors that may influence adjustment, such as facing a new social environment (e.g. peer network, classroom structure; Eccles, Wigfield, & Schiefele, 1998), increasing demands from teachers and parents (e.g., with academic performance and achievement; Blyth, Simmons, & Bush, 1978; Chung, Elias, & Schneider, 1998; Eccles & Harold, 1993), and experiencing “pressure” to find a place within the new peer group (Brown, 1990). For some early adolescents, the challenges of middle school may be associated with declines in school adjustment and mental health,

such as increases in internalizing or externalizing behaviors (Hankin, Abramson, Silva, McGee, Moffitt, & Angell, 1998; Nolen-Hoeksema & Girgus, 1994; Rudolph, Lambert, Clark, & Kurlakowsky, 2001).

In addition, peer relationships in early adolescence become more salient than ever before, and the development and maintenance of these relationships is an important developmental task that also affects early adolescents' school adjustment. Friendships serve to provide early adolescents with social and emotional skill building and support (e.g., coping and intimacy), interpersonal relationship experience important for later relationships (Bagwell, Schmidt, Newcomb, & Bukowski, 2001; Hodges, Boivin, Vitaro, & Bukowski, 1999; Parker, Rubin, Price, & DeRosier, 1995), and may operate as significant sources of protection in facing the challenges of middle school.

In contrast, peer victimization exacerbates the challenges that early adolescents face in middle school. Statistics suggest that about 10% to 20% of children are chronically victimized by their peers in school (Juvonen et al., 2003; Nansel et al., 2001; Solberg & Olweus, 2003), while about 75% of children, by middle and high school, have reported experiencing some form of harassment during their school years (Hoover, Oliver, & Hazler, 1992). Peer victimization can have lasting detrimental effects on children's social and emotional functioning and school adjustment (Hanish & Guerra, 2002; Kochenderfer & Ladd, 1996).

However, it is possible that friendships can protect against school maladjustment in the context of peer victimization. Some studies have found that having a friend who provides support and companionship buffers against continued peer victimization (Hodges et al., 1999; Hodges, Malone, & Perry, 1997) and the negative effects of peer

victimization on anxiety and depression (Schmidt & Bagwell, 2007). Moreover, it has been found that friends' characteristics of prosociality may protect early adolescents against risk of experiencing further peer victimization (Lamarche, Brendgen, Boivin, Vitaro, & Perusse, 2006), while having friends with high levels of aggression served as a vulnerability factor for school maladjustment in the context of peer victimization (Schwartz, Gorman, Dodge, Pettit, & Bates, 2008). However, there are no studies to date that have examined characteristics of friends, other than aggression, as protective or vulnerability factors for school maladjustment in the context of peer victimization.

The present study sought to examine (1) whether early adolescents' experiences of peer victimization are associated with their school adjustment (teacher-reports of academic competence, self-reports of school liking, and self-reports of loneliness at school), (2) whether friends' social adjustment is associated with early adolescents' school adjustment, and (3) whether friends' social adjustment moderates the association between early adolescents' experiences of peer victimization and school adjustment. Multiple indices of friends' social adjustment were examined as protective or vulnerability factors, including behavioral (teacher-reported prosocial skills), psychological (self-reported social anxiety), and experiential (peer-reported victimization) dimensions of friends' social adjustment. Friends' levels of social adjustment were anticipated to exacerbate or attenuate the association between early adolescents' experiences of peer victimization and school maladjustment, via higher or lower instrumental and emotional support in the context of peer victimization as well as more or less psychological and physical separation from peer victimization experiences.

The following literature review addresses: (1) the developmental context of early adolescence, (2) theories behind early adolescents' friendships and school adjustment, (3) peer victimization and school adjustment, (4) friendship and school adjustment, (5) friends' characteristics as predictors of early adolescents' school adjustment, (6) and the moderating role of friends characteristics on the association between early adolescents' peer victimization and school adjustment.

II. LITERATURE REVIEW

Developmental Context

Research has found that the transition to middle school is typically marked with distress (Fenzel, 1989) as early adolescents experience a convergence of normative biological, ecological, and social changes. As early adolescents go through puberty, they may become more self-conscious about their appearance and behaviors. Further, ecological challenges, such as expansion of the peer network, changes in the classroom structure (e.g., multiple teachers and different classmates in subject classes), and increases in academic rigor, may add to the stress of this particular time period (as cited in Rudolph et al., 2001). Along with the ecological challenges in the new school environment, social changes may also exert influence over early adolescents' adjustment. More specifically, parental demands of responsibility and teacher expectations of work ethic and academic success may increase. And making new friends and maintaining old friendships may be a challenge as a result of the change in school context and a larger peer group (Aikins, Bierman, & Parker, 2005, as cited in Parker et al., 1995). Adjustment problems have also been found to increase during the period of transition to adolescence, such as increases in depression and anxiety (Hankin et al., 1998; Nolen-Hoeksema & Girgus, 1994), declines in self-esteem, increased self-consciousness (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Rudolph et al., 2001), declines in academic

performance, and increased academic disengagement (Fenzel, 2000; Rudolph et al., 2001).

While many of the changes that early adolescents face are normative, some early adolescents may experience more significant stressors than others, resulting in greater declines in adjustment. For example, problems in the peer domain, such as peer victimization, may influence the social position of early adolescents within the peer group and their adjustment outcomes. In particular, experiences of peer victimization have been found to be associated with higher levels of depression, loneliness, and social anxiety, as compared to non-victims (see Hawker & Boulton, 2000 for review), and with declines in school adjustment, such as inattention in the classroom (Hanish & Guerra, 2002), poorer academic performance, and increases in school avoidance (Kochenderfer-Ladd & Ladd, 2001; Juvonen, Nishina, & Graham, 2000). The prevalence of peer victimization in middle schools is cause for concern given the potential school maladjustment outcomes youth may face as a result of experiencing peer victimization.

Conceptual Framework/Theory

Role strain is a conceptual framework that has been used to examine the changes and challenges that early adolescents encounter in middle school. Role, as defined by Bronfrenbrenner (1979), is the "set of activities and relations expected of a person occupying a particular position in society." Furthermore, role strain, as defined by Pearlin (1983), is the hardships, challenges, and conflicts or other problems that individuals experience within their social roles over time.

Role strain may be common for students transitioning to middle school as they experience new rules and expectations at school (e.g., from the administration and

faculty) and in their social network (e.g., from peer groups and friends; as cited in Fenzel, 1989). Other factors that may be involved in role strain for early adolescents are the competing expectations from parents, teachers, and peers in the school setting. In addition to these normative challenges in middle school, peer problems, such as peer victimization, are risk factors that may exacerbate early adolescents' "strain" and potentially overwhelm their coping capacities, compromising their school adjustment.

Developmental psychopathology provides a framework for understanding adjustment in the context of role strains, such as peer victimization, in middle school. Developmental psychopathology emphasizes that outcomes are the result of interactions between the individual and his/her internal and external environments (Cicchetti, 2006). More specifically, the principle of multifinality would suggest that while most children are exposed to a similar set of normative developmental challenges around the transition to middle school, their outcomes may differ as a result of the unique combination of protective and vulnerability factors they encounter (Cicchetti, 2006), such as experiences of peer victimization and having friends with higher or lower levels of social adjustment. Using the developmental psychopathology framework to address our research questions, we focus on the potential protective function of friends high in social adjustment (i.e., high in prosocial skills, low in social anxiety and peer victimization) and the potential vulnerability incurred by friends low in social adjustment (i.e., low in prosocial skills, high in social anxiety and peer victimization). We propose to examine protective and vulnerability effects of friends' social adjustment on early adolescents' school adjustment in the context of peer victimization.

The potential protective contributions of dyadic friendships are informed by Sullivan's (1953) Theory of Interpersonal Relationships. Sullivan theorized that friendships provide children with unique support for emotional and social development (as cited in Rubin, Chen, Coplan, Buskirk, & Wojslawowicz, 2005). Sullivan speculated about the role of close friendships in relation to children and adolescents' sense of loneliness and development of social perspective, prosocial behaviors, and social competence. Specifically, Sullivan stressed that children's friendships could potentially ameliorate developmental arrests resulting from earlier disturbances in parental or peer relationships (as cited in Parker et al., 1995). The major implication of this theory is that children who are not involved in friendships might fail to gain the social skills available from social interactions or the support available from close dyadic relationships (as cited in Berndt, 1989). Given the important provisions that reciprocated friendships may provide early adolescents, the current study sought to further examine specific attributes of adolescents' reciprocated friends in order to better understand the ways in which friends may serve as protective or vulnerability factors in the context of peer victimization.

Peer Victimization and School Adjustment

Peer victimization is a relationship in which children experience harassment, abuse, or verbal or physical aggression from their peers that may endure over time (Ladd, Kochenderfer, & Coleman, 1997). Victimization can be understood in terms of relational or physical victimization. Relational victimization, or social victimization, is defined as "the experience of being directly or indirectly excluded or socially manipulated" by peers (e.g., being excluded from a group activity; Cullerton-Sen & Crick, 2005). Physical

victimization, or overt victimization, is defined as the experience of direct physical or verbal harassment or aggression by peers (e.g., being hit or called mean names; Cullerton-Sen & Crick, 2005).

In a nationally representative sample of 15,686 middle and early high school students, the highest rates of self-reported peer victimization were found to occur during the middle school years, with 13.3% of sixth graders, 10.5% of seventh graders, and 7.6% of eighth graders being victimized on a weekly basis (Nansel et al., 2001). And while only a small percentage of children actually experience severe, chronic victimization, it was found that a greater percentage of students have experienced at least some form of harassment or victimization, with 50.4% of sixth graders, 48.5% of seventh graders, and 48.5% of eighth graders having reported experiencing victimization at least once or twice in a given school term (Nansel et al., 2001). Moreover, research has found associations between peer victimization and externalizing problems (Hanish & Guerra, 2002), internalizing problems (Bond et al., 2001; Kochenderfer-Ladd & Skinner, 2002), poor academic performance, school avoidance (Kochenderfer, 1995; Kochenderfer & Ladd, 1996; Juvonen et al., 2000), and lack of friends (Hodges et al., 1999).

Research has found that children who experience frequent peer victimization may be at greater risk for deficits in school adjustment (Birch & Ladd, 1996; Schwartz et al., 2008), such as decreases in school liking, developing negative attitudes towards school, and increases in school absenteeism (Boulton & Underwood, 1992; Kochenderfer-Ladd, 2004). Nishina and Juvonen (2005) found, from daily diary reports, that witnessing and experiencing victimization resulted in increases in school dislike in a sample of 95 sixth grade students transitioning to middle school. Interestingly, merely witnessing others

being victimized had a significant positive association with early adolescents' school dislike, even if the early adolescents were not experiencing victimization personally. Results also indicated that personally experiencing victimization was associated with daily increases in feelings of humiliation, anxiety, and anger (Nishina & Juvonen, 2005). Experiencing these negative emotions at school is not compatible with school liking or academic competence.

Indeed, children who experience peer victimization are also at risk for deficits in academic performance, which may be mediated by internalizing problems. Schwartz, Gorman, Nakamoto, and Toblin (2005) found that high levels of peer-reported peer victimization at Time 1 predicted low levels of academic functioning (i.e., standardized test scores and GPA) and self-reported depressive symptoms at Time 2 in a sample of 199 elementary school children. Depressive symptoms mediated the association between peer victimization and academic difficulties (Schwartz et al., 2005). Furthermore, Juvonen et al. (2000) found that seventh and eighth grade children's psychological adjustment (i.e., global self-worth and sense of loneliness) mediated the association between their perception of their victimization status and academic performance (i.e., GPA) and school attendance.

Given the confining nature of the school setting, peer victimization may not be easily avoidable for susceptible children, and therefore, their experiences in the peer domain may affect other areas of school life, such as academic performance and achievement. Further research is needed in order to better explain the relationship between peer victimization and school adjustment. The current study sought to investigate whether having friends with higher levels of social adjustment could protect

against lower school liking, lower academic competence, and feelings of loneliness at school in the context of peer victimization. Conversely, the present study aimed to examine whether having friends with lower levels of social adjustment increases victimized early adolescents' susceptibility to school maladjustment.

Friendship in Early Adolescence and School Adjustment

Friendship is defined as a voluntary, close, reciprocated relationship between two children (Birch & Ladd, 1996; Guroglu, van Lieshout, Haselager, & Scholte, 2007; Parker et al., 1995). Friends offer support to children and adolescents in a variety of ways, by providing emotional security and instrumental assistance in difficult or novel situations, enhancing self-esteem via positive regard, facilitating feelings of intimacy and affection, and providing companionship (Parker et al., 1995).

Generally, friendships can have a positive influence on school adjustment. For example, having more friends has been linked with higher grades, test scores, and involvement in school-related activities in middle school, as compared to early adolescents with no or fewer friends (Erath, Flanagan, & Bierman, 2008; Kingery & Erdley, 2007; Wentzel et al., 2004; Wentzel & Caldwell, 1997). Children with friends have been found to be more sociable, independent, emotionally supportive, cooperative, self-confident, prosocial, and less aggressive than children without friends (for a review see Newcomb & Bagwell, 1995; Wentzel & Caldwell, 1997); these characteristics are positively associated with academic outcomes.

A study conducted by Wentzel et al. (2004) sought to examine the influence of friends on school-related adjustment in a two year longitudinal investigation from sixth to eighth grade (N = 242). Wentzel et al. (2004) found that students who had a reciprocated

friendship at the beginning of middle school displayed more prosocial behaviors, as rated by teachers and peers, and better academic adjustment (i.e., GPA) at the end of the first year compared to children without a reciprocated friendship. Results from this study and prior research have revealed the beneficial role of friends in children's adjustment to middle school. However, few studies have looked to the characteristics of children's friends to explain children's school adjustment. By examining early adolescents' friends' characteristics, we may gain a better understanding of the ways in which these friendships function and potentially protect against maladjustment.

Characteristics of friends. Theories of socialization and selection focus on how friends influence one another. Socialization generally refers to how "individuals who associate with each other influence one another" (Kandel, 1978). Research conducted to examine theories of socialization has found that indeed, children do tend to become more similar with their friends over time (Berndt, 1999; Parker et al., 2006; Prinstein, 2007; Prinstein & Dodge, 2008). On the other hand, selection refers to the tendency for "individuals with prior similarity on some attributes of mutual importance [to] purposefully select each other as friends" (Kandel, 1978). The process of socialization is particularly helpful in furthering our understanding of why and how children may be influenced by their friends.

In line with theories of socialization, there has been empirical research illustrating the influence that friends' characteristics have on children and early adolescents' academic performance and deviant behavior. Research indicates that friends' GPA, academic motivation, achievement, and involvement in school are associated with early adolescents' own academic performance, achievement motivation, and involvement

(Altermatt & Pomerantz, 2005; Berndt & Keefe, 1995; Cook, Deng, & Morgano, 2007; Nelson & DeBacker, 2008). Furthermore, having deviant friends is associated with early adolescents' own problem behaviors and engagement in delinquent behaviors, such as drug and alcohol use, sexual promiscuity, and academic failure (Berndt & Keefe, 1995; Dishion, Capaldi, Spracklen, & Li, 1995; Duncan, Duncan, & Strycker, 2000; Guroglu, van Lieshout, Haselager, & Scholte, 2007). However, there has not been research examining the association between friends' social adjustment, including prosocial skills, social anxiety, and peer victimization, and early adolescents' school adjustment. Furthermore, no studies have examined these indices of friends' social adjustment as moderators between early adolescents' peer victimization and school adjustment.

Friends' Social Adjustment as Predictors of School Adjustment

Based on the socialization theory and the findings from the aforementioned studies, one aim of the current study was to examine associations among friends' social adjustment and early adolescents' school adjustment in middle school. It was anticipated that early adolescents whose friends have higher levels of social adjustment (e.g., prosocial skills) may be better adjusted to school due to the positive support these friends can provide, as compared to early adolescents whose friends have lower levels of social adjustment. In contrast, early adolescents with friends who have lower levels of social adjustment (e.g., elevated social anxiety or peer victimization) may have problems at school because they lack a strong support system and may have more exposure to negative emotions and experiences at school via their friends.

Friends' prosocial behaviors. Research has indicated that friends' prosocial behavior is positively associated with children' own prosocial behavior (Wentzel &

Caldwell, 1997; Wentzel et al., 2004; Wentzel & McNamara, 1999), potentially because prosocial acts by friends provide contexts in which to practice reciprocated prosocial behaviors (Wentzel & McNamara, 1999). However, no prior research has examined the association between friends' prosocial behavior and early adolescents' school adjustment. In the present study, it was proposed that friends who are more prosocial tend to be cooperative, socially engaging, aware of friends' needs, and understanding; therefore, they may provide a positive environment that facilitates better school adjustment. For example, prosocial friends may be more likely to help their friends with difficulties on academic tasks, promoting academic competence, and to serve as cooperative and enjoyable companions who include their friends in activities and interactions with others, thus promoting school liking and decreasing loneliness.

Friends' social anxiety. Social anxiety is typically characterized by social distress, self-focused fear of negative evaluation, social disengagement, and school avoidance (Beidel & Turner, 1998; La Greca & Stone, 1993). Research on social anxiety indicates that individuals who are socially anxious have lower social acceptance, more negative peer interactions, fewer friendships, and their friendships are less intimate and supportive (Ginsburg, La Greca, & Silverman, 1998; La Greca & Lopez, 1998). Therefore, having friends with social anxiety may serve as a potential vulnerability factor for early adolescents' school adjustment. In the current study, we anticipated that friends' with high levels of social anxiety may be less able to provide adequate social support for school adjustment because they may be more self-focused and less aware of others' needs. The focus on friends' social worries and insecurities may contribute to a negative emotional climate that detracts from early adolescents' school liking. Friends with high

levels of social anxiety may be less involved in school and classroom activities, perhaps less available to promote academic competence, and may be more withdrawn from their peers and friends, fostering a greater sense of loneliness for early adolescents.

Friends' peer victimization. Individuals experiencing peer victimization often experience a co-occurrence of internalizing or externalizing problems and school adjustment problems, such as declines in academic performance and school avoidance (Buhs, Ladd, & Herald, 2006; Hanish & Guerra, 2002; Juvonen et al., 2000). And having friends who experience peer victimization may have an impact on early adolescents' school adjustment. It was thought that having friends who experienced high levels of victimization would expose early adolescents to a greater number of peer victimization experiences, which could then potentially lead to victimization of the early adolescent (by association). Moreover, research has found that merely witnessing others being victimized was associated with increases in school dislike (Nishina & Juvonen, 2005), and having friends who are victimized may increase their chances of witnessing victimization, which could shift early adolescents' focus away from the positive aspects of school and their own academic performance.

In general, it was anticipated that friends' characteristics may have some influence and partially explain early adolescents' school adjustment. And while the current study seeks to further investigate the relationship between friends' attributes and early adolescents' school adjustment, we are also interested in the protective and vulnerability role that friends' characteristics may play in early adolescents' school adjustment in the context of peer victimization.

Friends' Social Adjustment as Moderator

Friendships are thought to serve important developmental (e.g., social, emotional) and ameliorative functions for developing children and adolescents. Indeed, research has found that friendship support is associated with children's ability to cope with a number of different life stressors (Bagwell et al., 2001; for review see Parker et al., 1995). A few studies have looked at the quantity and quality of friendships of victimized children in order to determine what aspect of friendships may serve as a protective role against the negative outcomes of peer victimization (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999; Erath et al., 2008; Hodges et al., 1997; Hodges et al., 1999). More specifically, studies have found that friendships may discourage and reduce the risk of harassment and maltreatment by peers because friends can defend and offer support for the victim against bullies or aggressors. It has been suggested that aggressors are not as likely to target a child who may be defended by friends (Hodges et al., 1999). Moreover, having a reciprocated friendship over time is significantly associated with a decrease in peer victimization, whereas not having a reciprocated friendship over time is significantly associated with increases in peer victimization (Boulton et al., 1999).

In examining a sample of 229 early adolescents in the seventh grade for individual and social risks for peer victimization, Hodges et al. (1997) found that having a greater number of mutual, reciprocated friendships (i.e., modified Peer Nomination Inventory) served as a protective buffer against chronic peer victimization. Moreover, the number of friends and friends' characteristics (i.e., friends' victimization and physical weakness) were found to moderate the link between peer-ratings of behavioral risks (i.e., internalizing and externalizing behaviors, physical weakness) and victimization. Results

indicated that early adolescents' behavioral risks predicted victimization for those who had few friends, as compared with early adolescents who possessed these same characteristics but had many friends. Friends' characteristics of victimization and physical weakness were also found to moderate the relation between early adolescents' behavioral risks and peer victimization. That is, early adolescents' own behavioral risks were associated with higher rates of peer victimization when their friends were highly victimized. When their friends were physically strong, early adolescents' behavioral risks were weaker predictors of their peer victimization. These findings suggest that the relation of early adolescents' behavioral risk to peer victimization was reduced when friends' were able to provide the victim with protection and defense (Hodges et al., 1997).

A later study by Hodges et al. (1999) examined best friendships and friendship quality (i.e., protection and companionship) as protective factors against peer-reported victimization in a sample of 393 children in the fourth and fifth grade. Results indicated that having a reciprocated best friendship was associated with decreased victimization, regardless of whether or not the children had behavioral problems (Hodges et al., 1999). For children who did not have a best friend, the results suggested an escalating cycle of peer abuse. Specifically, peer victimization was associated with increased externalizing problems for children without a best friendship. Moreover, having a reciprocated friendship high in protection eliminated the relation of internalizing behaviors to peer victimization, resulting in decreased victimization. Having a best friend who could not provide protection against bullies did not buffer victims against further harassment,

indicating that not all friendships are protective for children's experiences with peer victimization (Hodges et al., 1999).

It is important to emphasize that merely having friends may not serve a protective function for early adolescents. Research suggests that friendships in which both children exhibit maladaptive behavioral characteristics may not be protective against maladaptive socialization (Haselager, Hartup, van Lieshout, & Riksen-Walraven, 1998) or protective in situations of stress or adversity, such as peer victimization. For example, when interactions and discussion among friends are excessively focused on interpersonal (i.e., social or emotional) problems, also known as corumination, those friendships may actually contribute to increased internalizing problems (Rose, Carlson, & Waller, 2007). In addition, as previously noted, friends' deviant behaviors have also been found to be associated with poorer adjustment for early adolescents, particularly with poorer academic achievement and increases in externalizing behaviors (Duncan et al., 2000; as cited in Guroglu et al., 2007).

Only two studies have examined the role of friends as a moderator between peer victimization and school adjustment. Erath et al. (2008) examined the number and quality of friendships as moderators of the associations among peer victimization and indices of school adjustment in a sample of 398 sixth and seventh grade students. Results from the study indicated that the number of mutual friendships and friendship support were independently associated with higher self-reported school liking and teacher-reported academic competence, while peer- and self-reported peer victimization were associated with lower school liking. Furthermore, friendship support did moderate the association between self-reported victimization and school liking; however, in contrast to

expectations, there was a stronger negative association between self-reported victimization and school liking for adolescents who reported higher friendship support (Erath et al., 2008). Findings from this study suggest that perhaps having high quality friendships and numerous friendships is not sufficient to protect against the school adjustment problems of victimized students; the characteristics of friends may be critical to our understanding of the protective and vulnerability role that friends may serve.

A recent study by Schwartz et al. (2008) sought to examine the moderation of friends' aggression on the association between friendship and peer victimization in a sample of 509 eight and nine year old children. It was hypothesized that the association between peer ratings of victimization and the declines in academic performance (i.e., GPA) would be attenuated for children with friends who were low in aggression and exacerbated for children with friends who were high in levels of aggression (Schwartz et al., 2008). Results from this longitudinal study revealed that peer victimization was associated with academic declines for children who had few nonaggressive friends or numerous aggressive friends. It was thought that having nonaggressive friends may encourage positive attitudes towards school through the friends' ability to provide social support and companionship for victims (Schwartz et al., 2008). Overall, studies examining friends' characteristics as moderators have been limited; however, findings from this study suggest that examining the attributes of friends may provide further insight about how friends may serve as protective or vulnerability factors.

The current study sought to expand upon the previous studies examining friendship as a moderator by specifically examining friends' levels of social adjustment (i.e., prosocial behavior, social anxiety, and peer victimization) as moderating factors in

the association between peer victimization and school adjustment (i.e., academic competence, school liking, and loneliness at school). By examining friends' levels of social adjustment, we will be better able to pinpoint how friends may facilitate or inhibit children's adjustment to peer victimization. More specifically, having friends with higher levels of prosocial behaviors were thought to be protective buffers against school maladjustment in the context of peer victimization experiences, as these friends may be more engaged and involved in school and may possess the skills to support and protect early adolescents against the negative effects of peer victimization. In contrast, having friends with higher levels of social anxiety and peer victimization may serve as vulnerability factors for school maladjustment, as these friends may exacerbate the effects of peer victimization by potentially creating a negative emotional environment and failing to provide adequate social support or protection for early adolescents' facing peer victimization.

Friends' prosocial behaviors. It was anticipated that the association between peer victimization and school maladjustment would be weaker among early adolescents' whose friends' had higher levels of prosocial behavior, as compared to early adolescents' whose friends had lower levels of prosocial behavior. Lamarche et al. (2006) contended that prosocial friends may be better equipped to help resolve negative social situations, such as peer victimization, because they may have the skills to defuse or prevent attacks. Early adolescents with friends who possess high levels prosocial skills may receive more support when faced with incidents of peer victimization, such as comfort, understanding, and advice, which may protect against lower levels of school liking and loneliness at

school. Prosocial support from friends may also allow early adolescents to maintain academic focus at school despite the stress of peer victimization.

Friends' social anxiety. Prior research has shown that friends' social anxiety moderated the association between friends' depressive symptoms and early adolescents' depressive symptoms (Prinstein, 2007). It is possible that friends' social anxiety may have an impact on other areas of adjustment outcomes as well. It was anticipated that friends' with high levels of social anxiety may serve as a vulnerability factor for early adolescents' school adjustment in the context of peer victimization. Perhaps friends with high levels of social anxiety may be more focused on their own problems than those of their friends, and they may be unavailable to victims for help or support, thus facilitating early adolescents' sense of loneliness at school. Moreover, victimized early adolescents who have highly anxious friends may tend to coruminate with them about their problems (i.e., focus on their problems extensively; Rose, 2002); therefore, victims may not be able to shift their focus from the peer harassment, undermining and detracting from their academic performance and facilitating their school dislike. In addition, friends with a greater number of problems may not be the best source for support, involvement, and advice. Having highly anxious friends (and corresponding withdrawn and submissive behaviors) may make the early adolescents easier targets for peer victimization because the aggressors may realize that the members of the group cannot protect themselves or each other.

Friends' peer victimization. It was anticipated that friends with high levels of peer victimization may further exacerbate early adolescents' own maladjustment in the context of peer victimization, as compared to having friends with low levels of peer

victimization. Particularly at high levels of victimization, having friends who are also victimized by peers may make it difficult for adolescents to physically separate themselves from incidents of victimization and may make the adolescent and his/her group of friends easier targets for aggressors (Hodges et al., 1997). Further exposure to such negative situations may interfere with early adolescents' adjustment, as their victimized friends may be unable to serve as distractions from their own victimization or as motivators to focus on other, more positive aspects of school, thus resulting in decreases in their school liking and academic performance.

The Present Study

Existing research suggests that friendships and peer victimization may play important roles in early adolescents' adjustment to middle school. However, only two studies have examined the interactive processes between friendship and peer victimization as predictors of school adjustment (Erath et al., 2008; Schwartz et al., 2008). Moreover, the findings from these studies have been inconsistent. Erath et al. (2008) unexpectedly found that friendship (i.e., friendship support and number of mutual friendships) was not protective of decreased school liking and academic competence in the context of peer victimization. Even less is known about whether friends' characteristics can protect against school maladjustment in the context of peer victimization. Only one prior study has examined friends' characteristics as a moderator between peer victimization and academic performance. Schwartz et al. (2008) found that peer victimization was associated with academic declines for early adolescents with many aggressive friends or few non-aggressive friends. No study to date has looked at

friends' levels of social adjustment as protective or vulnerability factors that may moderate the association between peer victimization and school adjustment.

The present study advances the existing literature by examining whether indices of friends' social adjustment operate as protective or vulnerability factors above and beyond early adolescents' number of friends. Social adjustment was broadly construed as prosocial behaviors, social anxiety, and peer victimization. Furthermore, gender differences in the protective or vulnerability function of friends' characteristics will also be investigated. Gender differences in friendship quantity, friendship quality, and adjustment have been identified, although some findings have been inconsistent (Cullerton-Sen & Crick, 2005; Guroglu, et al., 2007; La Greca & Lopez, 1998; McDougall & Hymel, 2007; Rose, 2002); however, little research has been conducted to investigate whether certain characteristics of friends are more or less protective for boys or girls.

Aim 1. A preliminary goal of the present study is to replicate prior findings linking peer victimization and school adjustment. It is anticipated that peer victimization will be negatively associated with school adjustment, such that higher levels of peer victimization will be associated with poorer school adjustment (e.g., decreased school liking, academic competence, and increased loneliness in school).

Aim 2. The second goal of the present study is to examine the association between friends' scores on several indices of social adjustment and early adolescents' school liking, academic competence, and feelings of loneliness at school. It is hypothesized that early adolescents' with friends who have higher levels of social adjustment (e.g., high in prosocial behavior, low in social anxiety and peer victimization) may be better adjusted

to school, compared to early adolescents with friends who have lower levels of social adjustment, because they may have a better support system and a positive influence and perspective about school. In contrast, early adolescents' with friends who have lower levels of social adjustment (e.g., low in prosocial behaviors, high in social anxiety and peer victimization) may be poorer adjusted at school because they lack the support system and may be more focused on their friends' negative experiences and problems.

Aim 3. The primary goal of the present study is to examine friends' characteristics as a moderator of the association between peer victimization and school adjustment. Based on socialization theories (Kandel, 1978) and previous research, it is hypothesized that friends' characteristics of prosocial behaviors, social anxiety, and peer victimization will moderate the association between early adolescents' peer victimization and school adjustment. It is anticipated that the association between peer victimization and indices of school maladjustment will be attenuated among early adolescents with friends who have relatively high levels of social adjustment, and exacerbated among children with friends who have relatively low levels of social adjustment. In general, the characteristics of friends that will be examined in the present study are hypothesized to facilitate or undermine support in the context of peer victimization and separation from peer victimization experiences.

Aim 4. An exploratory goal of the present study is to test gender differences in the association between friends' characteristics and school adjustment. There have been no empirical studies examining gender differences in how friends' social adjustment may moderate the association between peer victimization and school adjustment. Given the mixed findings in the literature on gender differences in friendship networks, friendship

stability, friendship intimacy (Berndt & Hoyle, 1985; Chan & Poulin, 2007), as well as gender differences in internalizing and externalizing problems (Hankin et al., 1998; Nolen-Hoeksema & Girgus, 1994; Rose, 2002), analyses are exploratory and hypotheses should be considered tentative.

Aim 5. An additional exploratory aim is to consider where differences between self- and peer-reported victimization may exist as main and interactive predictors of school adjustment. Self- and peer-reported victimization have only been found to be moderately correlated (Juvonen, Nishina, & Graham, 2001). Research has suggested that self-reported victimization is more subjective, whereas peer-reported victimization is more representative of the social reputation of an individual. How an early adolescent views himself/herself may be different from how peers and friends may perceive him or her (Juvonen et al., 2001). These differences in perspective may be associated with differences in early adolescent school adjustment.

III. METHOD

Participants

A total of 412 sixth and seventh grade students from two middle schools in central Pennsylvania received parental consent to participate in the study (see Erath et al., 2008 for a study that used the same sample). However, only participants with complete data and reciprocated friendships were examined in this study; 31 (8%) participants were excluded because they did not have any reciprocated friendships and 32 (9%) participants were excluded because they did not have any close reciprocated friendships (i.e., very best and good). The final sample included 319 participants, with 201 (63%) girls and 118 (37%) boys and 101 (31.7%) sixth graders and 218 (68.3%) seventh graders. The mean age of the final sample was 12.7 years. The racial composition of the participants reflected the demographics of central Pennsylvania, which included 87.1% Caucasians, .6% African Americans, .6% Hispanics, and 1.9% other race.

Procedure

Self-report measures and peer nominations were administered by graduate research assistants during a single class period. Teachers were asked to complete ratings of prosocial behavior and academic competence during their free time and were compensated for their time at an hourly rate per school district standards. All 18 teachers consented to participate and divided the ratings among themselves, such that they completed ratings for students with whom they were most familiar.

Measures

Mutual friendships. The Peer Social Network Diagram (Lansford & Parker, 1999; Parker & Herrera, 1996) was used to assess mutual or reciprocated friendship nominations. Participants were asked to identify their very best friends, their good friends, and their remaining friends within three concentric circles. In the present study, friendships were operationalized as reciprocated very best friend and good friend nominations. The number of nominations in each friendship category was not limited in order to avoid mischaracterizing the number of mutual friends that early adolescents actually have (Fox & Boulton, 2006; George & Hartmann, 1996).

Peer-reported peer victimization. After completion of the Peer Social Network Diagram, participants were asked to identify "students who get picked on all the time by other students" and "students who get made fun of by other students." The nominations that participants received for both items (as reported by peers) were summed and standardized within school to obtain the peer-reported victimization score. This measure had good reliability ($\alpha = .95$).

Self-reported peer victimization. Using an adapted victimization questionnaire (Craig, Pepler, Connolly, & Henderson, 2001), students completed the 5-item measure using a 4-point scale (1 = never to 4 = always). This measure assessed both direct (e.g., teasing or insulting) and indirect (e.g., spreading rumors or lies) forms of victimization. The items were summed and averaged to create a self-reported victimization score with good internal consistency ($\alpha = .81$).

Teacher-reported prosocial behaviors. Teachers assessed prosocial behaviors using a 7-item scale from the Social Health Profile (Conduct Problems Prevention

Research Group; CPPRG, 1998). Each item was rated on a 5-point scale (e.g., "This child is friendly," "This child is helpful to others," "This child resolves problems with peers on his/her own;" 1 = almost never to 5 = all the time). The reliability and predictive validity of the Social Health Profile and the Child Behavior Scale have been established (CPPRG, 1998; Lavallee, Bierman, Nix, & CPPRG, 2005). This measures was found to be reliable (α = .93).

Self-reported social anxiety. Participants completed the Social Anxiety Scale for Adolescents (SAS-A; La Greca & Lopez, 1998), which was used to assess social anxiety. The 18-item self-report (e.g., "I worry about being teased," "I worry about what others think of me;" "I feel shy even with peers I know very well") was rated on a 5-point scale (1 = not at all to 5 = all the time). The SAS-A has demonstrated strong reliability and validity in several studies (Inderbitzen- Nolan & Walters, 2000; La Greca & Lopez, 1998; Storch et al., 2004). In the present study, the measure was found to be reliable (α= .91).

Teacher-reported academic competence. Teachers completed two items from the Social Health Profile (CPPRG, 1992), which were used to assess participants' academic competence. Both items ("This child is academically competent;" "Schoolwork is really hard for this child") were rated on a 5-point scale (1 = almost never to 5 = all the time). The second item was reverse-scored and the two items were averaged. In this study, the measure had good internal consistency (α = .92).

Self-reported school liking. School liking was assessed using the School Liking and Avoidance Questionnaire (Ladd & Price, 1987). Each item was rated on a 5-point scale (e.g., "I like being in my school," "When I get up in the morning, I feel happy about

going to my school;" 1 = not at all true to 5 = really true). Three negatively-valued items were reverse-scored. This measure was found to have good internal consistency (α = .78).

Self-reported loneliness at school. Loneliness was assessed with three items (e.g., "I feel alone at school," "I feel left out of things at school," and "I'm lonely at school") from the Loneliness and Social Dissatisfaction Questionnaire (LSDQ; Asher, Hymel, & Renshaw, 1984), rated on a 4-point scale (1= never to 4= always). The LSDQ has good psychometric properties (Asher et al., 1984), and the internal consistency of the items used in the present study was good (α =.86).

Friends' social adjustment scores. Scores that represented the average level of friends' social adjustment were obtained by computing the mean of friends' scores on each index of social adjustment (i.e., teacher-reported prosocial behaviors, self-reported social anxiety, and peer-reported peer victimization). Peer-reported victimization was used to assess friends' rates of victimization in order to avoid common-informant bias with friends' self-reported social anxiety. All of participants' close reciprocated friendships (i.e., very best and good friends) were used to compute the mean level of friends' social adjustment. Prior studies that examined the influence of friends' characteristics also averaged participants' friends' scores (Berndt & Keefe, 1995; Laird, Jordan, Dodge, Pettit, & Bates, 2001; Vitaro, Brendgen, & Wanner, 2005), to provide an overall estimate of characteristics of participants' friends (Vitaro et al., 2005).

IV. RESULTS

Preliminary Analyses

Descriptive analyses were conducted to determine the ranges, means, and standard deviations of the study variables for the total sample (Table 1). On average, early adolescents experienced some victimization at school, according to self-and peer-reports. The peer-reported victimization variable was log-transformed to reduce skewness for correlation and regression analyses. On average, participants reported relatively low levels of loneliness at school, generally liked school, and were academically competent. On average, participants' friends were relatively prosocial, and they experienced some social anxiety and peer victimization.

Individual t-tests were also conducted to test gender and grade differences in participants' peer victimization and school adjustment and friends' social adjustment (Table 2). As shown in Table 2, peer-reported victimization was significantly higher for boys than for girls; likewise, peer-reported victimization was higher for boys' friends as compared to girls' friends. Teachers also reported more prosocial behavior for girls' friends than boys' friends. There were marginally significant differences between girls and boys' academic competence and school liking, such that teachers reported higher academic competence for girls and girls reported higher school liking. There were no significant grade differences in self- or peer-reports of victimization. Teachers reported that sixth grade participants' friends were more prosocial than seventh grade participants'

friends. Furthermore, friends' of sixth graders reported greater social anxiety than friends' of seventh graders. Teachers reported that seventh graders had higher academic competence than sixth graders at the non-significant trend level.

Correlations were conducted for all study variables (Table 3). As shown in Table 3, peer-reported and self-reported victimization were significantly correlated ($r = .32$, $p < .001$); the moderate correlation suggests that peer- and self-perspectives on victimization overlap but tap partially distinct aspects of peer victimization (Juvonen et al., 2001). Both peer- and self-reported victimization were significantly correlated with participants' academic competence, school liking, and loneliness at school in the expected directions. Participants' number of mutual friends was negatively correlated with both self-and peer-reported victimization and with friends' peer-reported victimization, and positively correlated with indices of early adolescents' school adjustment and with friends' prosocial behaviors. Early adolescents' academic competence was positively correlated with their school liking, and their school liking was negatively correlated with their sense of loneliness at school.

Friends' prosocial behavior was negatively correlated with friends' social anxiety and peer-reported victimization, and friends' social anxiety was positively correlated with friends' peer-reported victimization. Friends' prosocial behavior, social anxiety, and peer victimization were significantly correlated with early adolescents' academic competence in the expected directions. Friends' prosocial behavior was also significantly correlated with early adolescents' school liking. As expected, there were significant correlations between target participants' and their friends' indices of social adjustment in the modest

to moderate range (i.e., prosocial behavior, $r = .40$, $p < .01$; social anxiety, $r = .17$, $p < .01$; peer-reported victimization, $r = .12$, $p < .05$).

Plan of Analysis

Regression analyses were conducted to examine the primary aims of the present study. In total, six separate regression analyses were conducted, which included either peer-reported victimization or self-reported victimization as the predictor variable and either academic competence, school liking, or loneliness as the outcome variable. For each regression analysis, gender, grade, and number of mutual friends were entered as control variables in the first step; participants' peer victimization was entered in the second step; friends' prosocial behaviors, social anxiety, and peer victimization were entered in the third step; and the interaction between participants' peer victimization and each index of friends' social adjustment was entered in the fourth step. The interaction between gender and participants' peer victimization was entered in the fifth step, and the interaction between gender and each index of friends' social adjustment was entered in the sixth step. In the final step, a three-way interaction among gender, participants' peer victimization, and each index of friends' social adjustment was entered.

For significant interactions, calculation of simple intercepts, simple slopes, and regions of significance were conducted according to standard procedures (Aiken &West, 1991; McCartney, Burchinal, & Bub, 2006), using the interaction utility described by Preacher, Curran, and Bauer (2006). These follow-up analyses included all control and predictor variables, lower-order interaction terms that comprised higher-order interactions, and all significant interaction terms from the original regression model. These analyses yielded intercepts and slopes representing the relations between the

predictor variable (peer victimization) and outcome variable (school adjustment) at low (-1 *SD*) and high (+1 *SD*) levels of the moderator variable (friends' social adjustment). In addition, regions of significance were computed for significant slopes to specify the range of moderator variables within which significant associations between predictor and outcome variables existed (Preacher et al., 2006). Predictor variables were centered for all regression analyses.

Predicting Academic Competence

Peer-reported victimization. Analyses that included participants' peer-reported victimization as a predictor of academic competence yielded support for the main effect and interaction hypotheses. Consistent with previous studies (Birch & Ladd, 1996; Schwartz et al., 2005; 2008), participants' peer-reported victimization was associated with lower academic competence, and participants' number of mutual friends was associated with higher academic competence. In addition, friends' prosocial behavior was associated with higher academic competence, whereas friends' social anxiety and peer-reported victimization were associated with lower academic competence, above and beyond demographic controls, peer victimization, and number of mutual friends (Table 4). Further, several hypothesized interaction effects emerged. Friends' prosocial behavior, social anxiety (three-way interaction with gender), and peer-reported victimization (three-way interaction with gender at the non-significant trend level) each independently moderated the association between early adolescents' peer-reported victimization and academic competence. The full set of predictors in this model explained 32% of the variance in early adolescents' academic competence.

Follow-up analyses to calculate simple intercepts and slopes for significant interactions provided further support for hypotheses. As expected, peer-reported victimization was associated with lower academic competence among participants whose friends exhibited low-prosocial behavior, B = -1.17, SE = .41, $p < .01$, but not associated with academic competence among participants whose friends exhibited high-prosocial behavior, B = .19, SE = .39, p = .61 (Figure 1). Regions of significance analysis revealed that the association between peer-reported victimization and lower academic competence was significant ($p < .05$) at values of friends' prosocial behavior equal to or less than .28 standard deviations below the mean of friends' prosocial behaviors. This result suggests that friends were protective against low academic competence in the context of peer victimization if their mean level of prosocial behavior was near or above average; conversely, friends operated as a vulnerability factor for low academic competence in the context of peer victimization if their mean level of prosocial behavior was well below average.

As noted, a three-way interaction among peer-reported victimization, friends' social anxiety, and gender also predicted academic competence. Follow-up analyses revealed that peer-reported victimization was associated with lower academic competence among boys whose friends exhibited high social anxiety, B = -1.18, SE = .50, $p < .05$, but not associated with academic competence among boys whose friends exhibited low social anxiety, B = .53, SE = .37, p = .15. The negative association between peer victimization and academic competence was non-significant among girls whose friends reported high or low levels of social anxiety, B = -.56, SE = .41, p = .17 and B = -.42, SE = .44, p = .35, respectively (Figure 2). Regions of significance analysis revealed

that the association between peer-reported victimization and lower academic competence was significant ($p < .05$) at values of friends' social anxiety equal to or greater than .37 standard deviations above the mean of friends' social anxiety. This result suggests that friends were protective against low academic competence in the context of peer victimization if their mean level of social anxiety was average to below average; conversely, friends operated as a vulnerability factor for low academic competence in the context of peer victimization if their mean social anxiety level was high.

A three-way interaction among participants' peer-reported victimization, friends' peer victimization, and gender also emerged at the non-significant trend level. Follow-up analyses revealed that peer-reported victimization was associated with lower academic competence for boys with low-victimized friends, $B = -.69$, $SE = .32$, $p < .05$, but not associated with academic competence for boys with high-victimized friends, $B = .15$, $SE = .34$, $p = .67$. There was a non-significant association between peer-reported victimization and academic competence for girls whose friends had high or low levels of peer victimization, $B = -.60$, $SE = .37$, $p = .11$ and $B = -.40$, $SE = .46$, $p = .39$, respectively (Figure 3). As illustrated in Figure 3, at low levels of peer victimization, early adolescent boys with low-victimized friends had higher academic competence than those with high-victimized friends, but at higher levels of peer victimization, their academic competence was similar. The negative association between peer victimization and academic competence for boys was significant ($p < .05$) at values of friends' peer victimization equal to or less than .57 standard deviations below the mean of friends' peer victimization. In contrast to expectations, this result suggests that friends operated as a vulnerability factor for low academic competence in the context of peer victimization if

their friends were well below the mean in peer victimization, but not if their friends were above the mean of peer victimization.

Self-reported victimization. Analyses that included participants' self-reported victimization as a predictor of academic competence also yielded support for the main effect hypotheses, but not for the interaction hypotheses. Participants' number of mutual friends was associated with higher academic competence. Gender moderated the association between self-reported victimization and academic competence, $B = .35$, $SE = .17$, $p < .05$, such that the association between self-reported victimization and lower academic competence was stronger for girls ($r = -.22$, $p < .01$) than boys ($r = .03$, $p = .73$). In addition, friends' social adjustment was associated with participants' academic competence. Specifically, friends' prosocial behavior was associated with higher academic competence, while friends' social anxiety and peer victimization were associated with lower academic competence, above and beyond demographic controls, peer victimization, and number of mutual friends (Table 7). The full set of predictors in this model explained 31% of the variance in early adolescents' academic competence.

Predicting Loneliness at School

Peer-reported victimization. Analyses that included participants' peer-reported victimization as a predictor of loneliness at school yielded some support for the main effect hypotheses. As expected, peer-reported victimization was associated with higher levels of loneliness at school, whereas participants' number of mutual friends was associated with lower levels of loneliness at school. A two-way interaction between peer-reported victimization and gender, $B = .99$, $SE = .30$, $p < .001$, revealed that the association between peer-reported victimization and loneliness was stronger for boys ($r =$

.49, $p < .001$) than girls ($r = .02$, $p = .73$). Surprisingly, friends' social adjustment was not a significant predictor of participants' sense of loneliness at school or a significant moderator of the association between participants' peer-reported victimization and loneliness at school (Table 6). All predictors in this model explained 14% of the variance in loneliness at school.

Self-reported victimization. Analyses that included participants' self-reported victimization as a predictor of loneliness at school yielded some support for main and interaction hypotheses. As anticipated, self-reported victimization was associated with higher levels of loneliness at school. A significant two-way interaction between self-reported victimization and gender, $B = .30$, $SE = .12$, $p < .01$, revealed that the association between self-reported victimization and loneliness at school was stronger for boys ($r = .59$, $p < .001$) than girls ($r = .33$, $p < .001$). In addition, although indices of friends' social adjustment were not associated with loneliness at school, friends' prosocial behavior and friends' social anxiety (as part of a three-way interaction with gender at the non-significant trend level) each independently moderated the association between self-reported victimization and loneliness at school, above and beyond demographic variables, peer victimization, and number of mutual friends (Table 9). The full set of predictors in this model explained 27% of the variance in loneliness at school.

As expected, the positive association between self-reported victimization and loneliness at school was stronger among early adolescents whose friends exhibited low-prosocial behavior, $B = .40$, $SE = .10$, $p < .001$, compared to participants whose friends exhibited high-prosocial behavior, $B = .30$, $SE = .10$, $p < .001$ (Figure 4). Regions of significance analysis revealed that the association between self-reported victimization

and higher levels of loneliness at school was significant ($p < .05$) at equal to or less than 1.94 standard deviations above the mean on friends' prosocial behaviors. This finding suggests that friends were protective against loneliness at school in the context of peer victimization only if their mean level of prosocial behavior was very high.

As noted, a three-way interaction among self-reported victimization, friends' social anxiety, and gender also predicted loneliness at school at the non-significant trend level. Contrary to expectations, the positive association between self-reported victimization and loneliness at school was stronger for boys and girls with low-anxious friends, $B = .94$, $SE = .11$, $p < .001$ and $B = .49$, $SE = .10$, $p < .001$, respectively. However, the association between self-reported victimization and loneliness at school was also significant, although not as strong, for boys and girls with high-anxious friends, $B = .32$, $SE = .13$, $p < .05$ and $B = .21$, $SE = .10$, $p < .05$, respectively (Figure 5). Significant associations between self-reported victimization and loneliness existed at all levels of friends' social anxiety.

Predicting School Liking

Peer-and self-reported victimization. Analyses that included peer- or self-reported victimization as a predictor of school liking did not yield support for most main or interaction hypotheses. Participants' number of mutual friends was associated with higher school liking in analyses including both peer- and self-reported victimization. Self-reported victimization was associated with lower levels of school liking. Surprisingly, friends' social adjustment was not a significant predictor of participants' school liking or a significant moderator of the association between peer- or self-reported victimization and school liking (Tables 5 and 8). Friends' social anxiety was positively associated with

participants' school liking at the non-significant trend level. The full set of predictors in the peer- and self-reported victimization models explained 12% and 15% of the variance in school liking, respectively.

An Alternative Interpretation: Peer-reported Victimization as Moderator

Given that peer victimization and friends' social adjustment were examined concurrently, peer-reported victimization could also be conceptualized as the moderator, rather than the predictor. Thus, in analyses that followed-up on significant interactions, peer victimization was entered as a moderator in the association between friends' social adjustment and early adolescents' academic adjustment. Specifically, the association between friends' prosocial behaviors and participants' higher academic competence was stronger for participants who experienced higher levels of peer-reported victimization, $B = .88$, $SE = .15$, $p < .001$, as compared to those who experienced lower levels of peer-reported victimization, $B = .34$, $SE = .11$, $p < .01$, above and beyond their number of mutual friends (Figure 6). The lowest levels of academic competence were observed among participants with low prosocial friends and high peer victimization.

In addition, the association between friends' social anxiety and participants' lower academic competence was stronger for girls who experienced higher levels of peer-reported victimization, $B = -.32$, $SE = .10$, $p < .10$, as compared to girls who experienced lower levels of peer-reported victimization, $B = -.26$, $SE = .19$, $p = .18$, independent of their number of mutual friends. Further, there was a stronger negative association between friends' social anxiety and academic competence for boys who experienced higher levels of peer-reported victimization, $B = -.48$, $SE = .25$, $p < .05$, as compared to boys with lower levels of peer-reported victimization, $B = .79$, $SE = .40$, $p < .05$,

independent of their number of mutual friends (Figure 7). The lowest levels of academic competence were observed among boys and girls with high victimization and friends with high social anxiety.

Friends' peer-reported victimization was also associated with academic competence at the non-significant trend level (Figure 8), such that there was a stronger association between friends' peer-reported victimization and lower academic competence for boys who experienced higher levels of peer-reported victimization, $B = -1.27$, $SE = .42$, $p < .001$, as compared to boys who experience low levels of peer-reported victimization, $B = .05$, $SE = .41$, $p = .90$, independent of their number of mutual friends. There were no significant associations for girls at high or low levels of peer-reported victimization, $B = -.27$, $SE = .45$, $p = .55$ and $B = -.05$, $SE = .48$, $p = .91$, respectively. The lowest levels of academic competence were observed among boys with high victimization and friends with high peer victimization.

V. DISCUSSION

The present study sought to examine whether the social adjustment of friends is associated with early adolescents' school adjustment and whether their friends' social adjustment moderates the association between their experiences of peer victimization and school adjustment, independent of their number of mutual friendships. Hypotheses were tested with a relatively large sample, multiple informants of each construct, and multiple indices of friends' social adjustment and early adolescents' school adjustment. The study is situated in the developmental context of early adolescence, when overall declines in school liking and academic performance occur (Fenzel, 2000; Rudolph et al., 2001), rates of bullying and peer victimization peak (Hoover et al., 1992; Nansel et al., 2001), and friendships become particularly salient (Newcomb & Bagwell, 1996; Parker et al., 2006).

Early adolescents spend considerable amounts of time with their peers and develop friendships characterized by intimacy, reciprocity, self-disclosure, and support (Furman & Buhrmester, 1992; Newcomb & Bagwell, 1996; Parker et al., 1995, 2006); these features of early adolescent friendships may help early adolescents cope with peer victimization and succeed in school. The specific friends' characteristics that were examined in this study have not yet been examined in association with early adolescents' school adjustment, or as moderators of the association between peer victimization and school adjustment. By focusing on the social adjustment of early adolescents' friends, we may better understand why some early adolescents do well in school, academically and

emotionally, and how some continue to achieve in school despite experiences with victimization.

As expected, early adolescents' number of mutual friends was associated with higher academic competence and school liking and lower loneliness at school, which was consistent with prior research that found having reciprocated friendships was associated with better school adjustment (i.e., better academic performance and school attitudes; Erath et al., 2008; for review see Hartup, 1996; Wentzel et al., 2004). In addition, self-reported victimization was associated with lower school liking and more loneliness at school, whereas peer-reported victimization was associated with lower academic competence and more loneliness at school. Independent of early adolescents' number of mutual friends and peer victimization, friends' prosocial behavior was associated with higher academic competence, and friends' social anxiety and peer victimization were associated with lower academic competence. Friends' social adjustment was not independently associated with early adolescents' subjective school liking or feelings of loneliness at school.

Some support emerged for hypotheses that higher levels of friends' social adjustment would protect against school maladjustment in the context of peer victimization, whereas lower levels of friends' social adjustment would exacerbate school maladjustment in the context of peer victimization. Moderation hypotheses were supported relatively consistently for the academic competence outcome but not for school liking and loneliness at school outcomes. Specifically, the association between peer-reported victimization and lower academic competence was attenuated among early adolescents with friends who were high in prosocial behaviors and low in social anxiety

(and, surprisingly, among early adolescents with friends who were low in peer victimization). As anticipated, the association between self-reported victimization and greater loneliness at school was also attenuated among early adolescents whose friends were more prosocial (and, surprisingly, among early adolescents whose friends were relatively high in social anxiety). In general, consistent with prior research (Juvonen et al., 2001), main effects and interactions involving peer-reported victimization tended to be associated with more objective reports of school adjustment (i.e., academic competence), whereas main effects and interactions involving self-reported victimization tended to be associated with more subjective self-reports of school adjustment (i.e., loneliness at school and school liking).

Peer Victimization and School Adjustment

Peer-reported victimization was associated with lower academic competence and greater loneliness at school, whereas self-reported victimization was associated with lower school liking and more loneliness at school. These findings are consistent with previous research, which have found peer victimization to be associated with school maladjustment, such as school absenteeism, declines in academic performance, school dislike, and developing negative attitudes about school (Birch & Ladd, 1996; Kochenderfer-Ladd, 2004; Juvonen et al., 2000; Nishina & Juvonen, 2005; Schwartz et al., 2008).

On average, peer-reported victimization was significantly higher for boys than for girls. These findings are consistent with some research that has found boys experience more victimization than girls (Nansel et al., 2001). Gender moderated the associations between self- and peer-reported victimization and loneliness at school, such that the

association between victimization and higher reports of loneliness at school were stronger for boys than girls. In addition, gender moderated the association between self-reported victimization and academic competence, such that the association between self-reported victimization and lower academic competence was stronger for girls than boys.

Main Effects: Friends' Social Adjustment and Early Adolescents' School Adjustment

Regression analyses revealed support for the hypothesis that friends' social adjustment would be associated with early adolescents' school adjustment, even after accounting for their number of mutual friends and peer victimization experiences. Specifically, friends' prosocial behavior was positively associated with early adolescents' academic competence, whereas friends' social anxiety and peer victimization were negatively associated with academic competence.

Friends' prosocial behaviors were associated with higher academic competence. Prosocial children tend to be more cooperative and helpful (Guroglu et al., 2007); likewise, prosocial friends may be more likely to help each other with difficulties on academic tasks, thus promoting academic competence. Moreover, prosocial friends may foster or improve adolescents' positive mood in the school setting which, in turn, may facilitate attention and learning at school (Birch & Ladd, 1996; Erath et al., 2008; Wentzel, 1996). Prior research yielded evidence that having reciprocated friendships is associated with prosocial behaviors and later academic achievement (Wentzel et al., 2004); however, friends' prosocial behaviors were not previously examined as a potential explanation as to why having friends was associated with prosocial behaviors and academic achievement. The present study documents the potential benefits of friends' prosocial behavior for academic competence.

Findings indicated that friends' social anxiety and peer victimization were negatively associated with early adolescents' academic competence. When friends were more socially anxious or experienced peer victimization, adolescents' academic competence was found to be lower. Individuals who are socially anxious are more socially disengaged, have fewer friendships, and their friendships are less intimate and supportive (Ginsburg et al, 1998; La Greca & Lopez, 1998). Therefore, having friends with high levels of social anxiety may not benefit early adolescents' school adjustment, as these friends may be less involved in school and classroom activities and perhaps less available to promote academic competence. Further, having highly victimized friends was associated with lower levels of academic competence. Individuals who are victimized have reported school adjustment problems themselves (Hanish & Guerra, 2002), as well as feelings of anger and humiliation, which are not conducive to school adjustment (Nishina & Juvonen, 2005). Peer-victimized friends may be unable to promote early adolescents' academic competence, as they may be preoccupied with their own negative emotions and school problems.

Another explanation as to why friends' social anxiety and peer victimization may be associated with lower academic competence may involve peer socialization and emotional contagion. Stevens and Prinstein (2005) found that friends' negative emotions (i.e., depressive symptoms) were associated with early adolescents' negative emotions and attributional style 11 months later, suggesting that emotional contagion may play a role in early adolescents' own adjustment. These findings may also be applicable to friends' levels of social anxiety and peer victimization, suggesting that the negative emotions shared by highly anxious or peer victimized friends may affect early

adolescents' own emotional state, thus potentially affecting their academic performance and concentration in class. The transmission of emotions and attributional styles may be particularly salient during early adolescence as friendships become more salient during this period and adolescents tend to rely on their friends and peers to provide support in times of need. Further, having socially anxious or victimized friends may also be negatively associated with early adolescents' school adjustment through corumination (Rose, 2002). Having friends who are socially maladjusted may place early adolescents in a context characterized by negative emotions and conversations focused on friends' interpersonal problems, detracting from more positive emotions and aspects of school.

Somewhat surprisingly, although friends' prosocial behavior was correlated with school liking, there were no independent associations between friends' social adjustment and early adolescents' school liking or loneliness at school in regression analyses. One potential explanation is that early adolescents' number of mutual friends overrides friends' characteristics in terms of how much one likes school and the extent to which one feels lonely at school. That is, simply having numerous friends or companions at school may be sufficient to support school liking and prevent loneliness, even if the friends are not well-adjusted socially. The present study found that number of mutual friends was linked with higher school liking and lower loneliness at school, and a study drawn from the same data set as the current study reported that adolescents' number of mutual friendships was linked with school liking, independent of friendship quality (Erath et al., 2008). Another possibility is that peer victimization, which was also controlled in regression analyses, overrides the potential benefits that friends' characteristics can serve. Experiences of verbal or physical harassment at school may

shape subjective feelings about school, and therefore, may explain why we did not find independent associations between friends' social adjustment and adolescents' subjective feelings about school.

However, the potential overriding influence of number of friends or peer victimization relies on at least a bivariate correlation between friends' social adjustment and school liking or loneliness, which was not evident in most cases. Thus, it is also possible the characteristics of friends are less important than the match between target adolescents' and their friends' characteristics, which was not considered in the present study. Perhaps when friends' social adjustment is closely matched with early adolescents' social adjustment, they are better able to relate to one another and provide support, and thus promote more positive subjective feelings about school. Considering the effect of match or compatibility between friends would be an informative direction for future research.

Interaction Effects: Moderating Role of Friends' Social Adjustment

Friends' social adjustment was not only associated with early adolescents' school adjustment, but also moderated the effects of peer victimization in some cases, such that the extent to which peer victimization experiences were associated with school maladjustment depended on friends' levels of social adjustment. In particular, some indices of friends' social adjustment were protective against teacher reports of lower academic competence in the context of peer-reported victimization. Thus, good academic performance may be maintained despite an adverse peer context, when friends are able to provide adequate support or separation from peer victimization.

Friends' prosocial behavior. Friends' prosocial behaviors moderated the association between peer-reported victimization and academic competence, such that the association between peer victimization and lower academic competence was attenuated among early adolescents with high-prosocial friends and exacerbated among early adolescents with low-prosocial friends. At low levels of peer-reported victimization, early adolescents with high-prosocial friends and low-prosocial friends were given similar ratings of academic competence by teachers; however at high levels of peer victimization, early adolescents with low-prosocial friends had lower levels of academic competence compared to early adolescents with high-prosocial friends, above and beyond early adolescents' number of mutual friendships.

As anticipated, these findings suggest that having more prosocial friends served as a protective factor, whereas having less prosocial friends served as a vulnerability factor for poorer academic competence in the context of peer victimization. Prosocial friends may be better equipped (i.e., socially skilled) to help and support victimized adolescents (Lamarche, et al., 2006), and they may be more motivated to protect their friends (Guroglu et al., 2007). Given the correlation between prosocial behavior and academic competence (Caprara et al., 2000), prosocial friends may also try to divert victimized adolescents' attention to other, more positive aspects of school, such as academic achievement, which would be expected to promote academic competence.

Friends' prosocial behavior also moderated the association between self-reported victimization and loneliness at school, such that the association between victimization and higher levels of loneliness at school were attenuated for early adolescents' with high-prosocial friends, as compared to early adolescents' who had low-prosocial friends,

above and beyond early adolescents' number of mutual friendships. As anticipated, having friends who were higher in prosocial behavior served as a protective factor, whereas having friends who were lower in prosocial behavior served as a vulnerability factor for loneliness at school in the context of self-perceived victimization. These findings are consistent with prior research which has found that prosocial behaviors from peers moderated the relationships between overt and relational victimization and loneliness in adolescents, such that prosocial peers provided victimized adolescents with greater support, which buffered against more loneliness (Storch & Masia, 2001; Storch, Nock, Masia-Warner, & Barlas, 2003). Prosocial friends also may be more socially engaging (Guroglu et al., 2007), which may also help victimized adolescents to feel less lonely at school, as their friends may be more likely to include them in activities and help them to shift their focus to other positive aspects of school.

Friends' social anxiety. As hypothesized, as part of a three-way interaction with gender, friends' social anxiety also moderated the association between peer-reported victimization and academic competence, such that the association between victimization and lower academic competence was exacerbated for early adolescent boys with high-anxious friends. At low levels of peer-reported victimization, boys with high-anxious friends were given similar ratings of academic competence compared to boys with low-anxious friends; however, at high levels of peer victimization, early adolescent boys with high-anxious friends had lower levels of academic competence than those with low-anxious friends, above and beyond early adolescents' number of mutual friendships.

This finding suggests that having friends with higher social anxiety served as a vulnerability factor for boys, whereas having friends with lower anxiety served as a

protective factor against poorer academic competence in the context of peer victimization. Socially anxious friends may be more focused on their own insecurities and worries, socially disengaged, and may be less supportive towards victims, as compared to those with friends who are less socially anxious (Biedel & Turner, 1998; Ginsburg et al., 1998). Research has consistently yielded evidence that socially anxious youth have lower levels of social acceptance and tend to be disliked by peers (Ginsburg et al., 1998; La Greca & Stone, 1993). Boys' socially anxious friends confer particularly high levels of vulnerability because socially anxious boys appear to be particularly susceptible to peer rejection and victimization (Boulton, 1999; Erath, Flanagan, & Bierman, 2007; Rubin & Coplan, 2004).

Friends' social anxiety also moderated the association between self-reported victimization and loneliness at school at the non-significant trend level. However, the nature of the interaction was not expected. Among early adolescents with low-social anxious friends, there was a stronger association between self-reported victimization and loneliness, compared to early adolescents with high-anxious friends. However, at low levels of peer victimization, adolescents with low-anxious friends reported lower levels of loneliness at school than those with high-anxious friends. Thus, a partial explanation may involve a ceiling effect because, on average, those with high-anxious friends reported greater loneliness than those with low-anxious friends; therefore, the potential increase in loneliness associated with increased victimization is potentially greater for those with low-anxious friends. We cannot draw strong conclusions about this finding or interpretation given that the interaction did not reach statistical significance.

Friends' peer victimization. Friends' peer victimization was found to moderate the association between peer-reported victimization and academic competence, at the non-significant trend level, such that the association between victimization and lower academic competence was found for early adolescent boys with low-victimized friends, but not among boys with high-victimized friends. Consistent with main effect hypothesis, boys with low-victimized friends had higher academic competence than boys with high-victimized friends at low levels of victimization; however, at high levels of victimization, boys with high-victimized and low-victimized friends had similar levels of academic competence, suggesting that having low-victimized friends does not operate as a protective factor.

One explanation for this unexpected finding may involve early adolescents' perceptions of their experiences in comparison with their friends. A study by Bellmore Witkow, Graham, & Juvonen (2004) examining ethnicity and peer-reported victimization found that students who were perceived as victims in classrooms with many same-ethnic peers reported more loneliness and greater social anxiety, as compared to victimized students in classrooms with few same-ethnicity peers. This suggests that when peers perceive victimization as deviating from the norm of the classroom there is a negative impact on adolescents' adjustment. These findings may explain why at high levels of peer victimization, early adolescents with low-victimized friends had academic competence levels that were as low as adolescents with high-victimized friends. Perhaps for these adolescents, their victimization deviated from the "normative" experiences of their low-victimized friends, which contributed to attributions of self-blame and thus disrupted their academic engagement. However, we cannot draw strong conclusions

about the nature of this interaction given that it was not hypothesized and it did not reach statistical significance.

Friends' social adjustment did not moderate the association between self- and peer-reported victimization and school liking. Perhaps peer victimization overrides the potential benefits of friends' characteristics for school liking. Since peer victimization was measured in the school context, early adolescents who experience victimization may dislike school regardless of their friends' social adjustment because they have associated the school context with their peer victimization experiences. Having socially adjusted friends may not be enough to influence or improve their school liking, especially if they perceive themselves as victims. Indeed, although children and adolescents have reported experiencing a range of victimization, from mild teasing to chronic verbal or physical victimization, associations with subjective feelings of distress, potentially reflected in school disliking, are clear (Hankin et al., 1998; Kochenderfer-Ladd & Ladd, 2001; Nolen-Hoeksema & Girgus, 1994; Rudolph et al., 2001). For instance, daily diary reports indicated that early adolescents reported feelings of humiliation, shame, and anger after experiencing peer victimization, which are not conducive to school liking (Nishina & Juvonen, 2005).

An Alternative Interpretation: Peer-reported Victimization as a Moderator

In follow-up analyses, early adolescents' peer-reported victimization was also examined as a moderator, rather than as a predictor, as both peer victimization and friends' social adjustment were assessed concurrently. The association between friends' prosocial behaviors and early adolescents' higher academic competence was stronger for early adolescents who experienced higher levels of peer victimization. In contrast, the

association between friends' social anxiety and lower academic competence was stronger for early adolescents who experienced higher levels of victimization. In addition, the association between friends' peer-reported victimization and lower academic competence was stronger for early adolescent boys who experienced higher levels of peer victimization. Overall, consistent with the original interaction follow-up analyses, the lowest levels of academic competence were observed among early adolescents who experienced high levels of peer victimization and had friends who were low in prosocial behavior, high in social anxiety, or high in peer victimization.

Limitations and Future Directions

While the results from the current study contributes to furthering our knowledge about early adolescents' peer relations, especially by providing new information about how friends' characteristics are associated with early adolescents' school outcomes and serve as moderating factors between peer victimization and school outcomes, there were also several limitations of the present study. First, the current study was limited in ethnic and racial diversity, as approximately 87% of our participants were Caucasian; thus, we cannot generalize our findings across ethnic and racial groups. Future research should consider how friendships and friends' characteristics may be protective in the context of victimization for different ethnic and racial groups.

Furthermore, the current study was cross-sectional; therefore we cannot conclude that friends' characteristics or peer victimization affects early adolescents' school adjustment over time, or vice versa. We also cannot be certain about which of the predictors (i.e., peer victimization or friends' social adjustment) operates as a buffer or protective factor against problematic levels of the other. However, there appears to be

evidence from a longitudinal study by Schwartz et al. (2008) that supports the notion that friends' characteristics (i.e., aggression) may have long-term effects on early adolescents' school adjustment. Future research should consider a longitudinal research design in order to determine the directionality and change in peer victimization, friends' characteristics, and early adolescent adjustment outcomes over time. In addition, a design that includes more intensive and objective assessments of children's school adjustment and academic performance (e.g., standardized test scores and report card grades) would also be informative.

Because the present study examined the potential protective role of friendships, we were not able to include participants who did not have reciprocated best or good friendships, which amounted to about 8% of the total sample. As a result, we may have excluded a group of early adolescents who were particularly vulnerable to peer victimization and poorer school adjustment outcomes. Longitudinal research that assesses friendship at multiple time points could more readily study adolescents who are not chronically friendless, as some may not have friends at a single time point (i.e., our study excluded individuals who did not have reciprocated friendships at the time of data collection). This would allow researchers to examine the characteristics of friends of adolescents who are perhaps even more vulnerable, on average, than the adolescents included in the present study.

Although we were able to identify several characteristics of early adolescents' friends, we still do not know the specific processes or behaviors that friends with these characteristics engaged in that protected against or exacerbated lower academic competence and loneliness at school. Future research should include reports about how

socially competent friends help one another when their friends are victimized and about the types of behaviors that help resolve problems or serve as a distraction (using self- and peer-reports and observations). It also would be informative for future research to examine the match between target participants and their friends' social adjustment, as this was not considered in the current study. Perhaps the protective or vulnerability function of friends' social adjustment depends, in part, on the similarity or compatibility of early adolescents and their friends. The present study found modest correlations between early adolescents' social adjustment and their friends' social adjustment, suggesting that some overlap exists yet substantial variability remains. It is also interesting that the association between early adolescents' peer victimization and their friends' social adjustment was generally modest. Future research is necessary in order to further determine why some adolescents experience victimization yet have socially competent friends, or experience little victimization yet have socially maladjusted friends.

We also did not examine relational and physical victimization separately. While our measures tapped into both types, there were not enough items to separate the measures into two scales. This may explain why we did not find other significant gender differences. In the victimization literature, researchers have differentiated between relational and physical victimization, with some findings supporting the notion that girls experience more relational victimization and boys experience more physical victimization (Crick, Casas, & Ku, 1999; Crick & Grotpeter, 1995; Crick & Nelson, 2002), while others have found that there are no significant gender differences in relational victimization (as cited in Crick, Casas, & Nelson, 2002; Sullivan, Farrell, & Kliewer, 2006). Differentiating between relational and physical victimization (i.e., having

separate measures for both types of victimization) would be important to consider in future research.

Although we focused on some internalizing problems in this study, we did not examine externalizing behavior problems, which have also been found to be associated with peer victimization and school maladjustment (Hodges et al., 1997; Rudolph et al., 2001; Schwartz et al., 1999). It would be important for future research to control for externalizing behaviors and examine friends' externalizing behaviors as moderators of the association between peer victimization and school adjustment.

Lastly, our study did not account for other contextual factors, such as family and school conditions, that may also affect school adjustment for early adolescents. The family environment may be an important area to study in order to better understand variability in the effects of peer victimization. Research by Schwartz Dodge, Pettit, and Bates (2009) found evidence that peer victimization was associated with academic declines over time, but only among children who had been exposed to harsh parental discipline during adolescence. Furthermore, the school environment should be examined to determine whether the conditions at school exacerbate problems associated with school adjustment, such as peer victimization, or whether the environment is more protective against such experiences.

Conclusions

Despite these limitations, there were strengths of our study that advance the existing literature, specifically by examining the unique associations of reciprocated friendships and friends' characteristics with early adolescents' school adjustment, and as a moderator between victimization and school adjustment. Results from this study

indicate that friends' characteristics are associated with early adolescents' school outcomes and that some friends' characteristics can serve as protective or vulnerability factors in the association between early adolescents' peer victimization and school adjustment. Moreover, results from this study indicated that friends were less protective against self-perceptions of victimization than peer-perceptions, as well as less protective for subjective outcomes.

The design of the study allowed for the use of multiple informants, which enhanced the methodological design of the study. In having multiple informants for different measures, we were able to gain both objective and subjective perspectives. Furthermore, the present study examined mutually reciprocated friendships. In using reciprocated friendships, we were able to ensure the validity of the friendships and that these were individuals who considered each other to be friends. We also attempted to further explore gender differences, as gender differences have been found in the literature to be related to peer victimization and adjustment outcomes. While our analyses did yield some gender differences, such that there was more evidence for friends' social adjustment as a moderator for boys than girls, the relatively small number of interactions makes it difficult to draw conclusions about gender differences in the moderating role of friends' social adjustment. Future research that distinguishes types of victimization (e.g., physical versus relational) and includes other characteristics of friends (e.g., externalizing) or processes within friendships (e.g., corumination) may produce more conclusive evidence about gender differences (or lack thereof).

Findings from this study provide further support that peer victimization is associated with lower school adjustment. Moreover, friends' characteristics were also

found to be significantly associated with early adolescents' school adjustment. Some friends' characteristics were also found to be significant moderators between early adolescents' peer victimization and school adjustment, and evidence for moderation difference between boys and girls in some cases. In particular, these findings contribute to our knowledge and understanding of how friends' attributes may contribute to early adolescents' school adjustment and further explain differences in the association between peer victimization and school adjustment. These findings may also have implications for prevention and intervention with victimized adolescents, as they suggest that facilitating friendships with socially competent adolescents may promote their school adjustment and help protect them against peer victimization.

REFERENCES

Aikins, J.W., Bierman, K.L., & Parker, J.G. (2005). Navigating the transition to junior high school: The influence of pre-transition friendship and self-system characteristics. *Social Development, 14,* 42-60.

Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions.* Newbury Park, CA: Sage.

Altermatt, E.R., & Pomerantz, E.M. (2005). The implications of having high-achieving versus low-achieving friends: A longitudinal analysis. *Social Development, 14,* 61-77.

Asher, S.R., Hymel, S., & Renshaw, P.D. (1984). Loneliness in children. *Child Development, 55,* 1456-1464.

Bagwell, C.L., Schmidt, M.E., Newcomb, A.F., & Bukowski, W.M. (2001). Friendship and peer rejection as predictors of adult adjustment. *New Directions for Child and Adolescent Development, 91,* 25-49.

Beidel, D.C., & Turner, S.M. (1998). *Shy Children, Phobic Adults: Nature and Treatment of Social Phobia.* Washington D.C.: American Psychological Association.

Bellmore, A.D., Witkow, M.R., Graham, S., & Juvonen, J. (2004). Beyond the individual: The impact of ethnic context and classroom behavioral norms on victims' adjustment. *Developmental Psychology, 40,* 1159-1172.

Berndt, T.J. (1989). Obtaining support from friends during childhood and adolescents. In D. Belle (Ed.), *Children's Social Networks and Social Supports* (pp. 308-33). New York: Wiley.

Berndt, T.J. (1999). Friends' influence on students' adjustment to school. *Educational Psychologist, 34*, 15-28.

Berndt, T.J., & Hoyle, S.G. (1985). Stability and change in childhood and adolescent friendships. *Developmental Psychology, 21*, 1007-1015.

Berndt, T.J., & Keefe, K. (1995). Friends' influence on adolescents' adjustment to school. *Child Development, 66*, 1312-1329.

Berndt, T.J., & Keefe, K. (1996). Friends' influence on school adjustment: A motivational analysis. In J. Juvonen & K.R. Wentzel (Eds.), *Social motivation: Understanding children's school adjustment* (pp. 248-278). New York: Cambridge University Press.

Birch, S.H., & Ladd, G.W. (1996). Interpersonal relationships in the school environment and children's early school adjustment: The role of teachers and peers. In J. Juvonen & K.R. Wentzel (Eds.), *Social motivation: Understanding children's school adjustment* (pp. 199-225). New York: Cambridge University Press.

Blyth, D.A., Simmons, R.G., & Bush, D. (1978). The transition into early adolescence: A longitudinal comparison of youth in two educational contexts. *Sociology of Education, 51*, 149-162.

Bond, L., Carlin, J.B., Thomas, L., Rubin, K., & Patton, G. (2001). Does bullying cause emotional problems? A prospective study of young teenagers. *British Medical Journal, 323*, 480-484.

Boulton, M. J. (1999). Concurrent and longitudinal relations between children's playground behavior and social preference, victimization, and bullying. *Child Development, 70,* 944-954.

Boulton, M.J., Trueman, M., Chau, C., Whitehand, C., & Amatya, K. (1999). Concurrent and longitudinal links between friendship and peer victimization: Implications for befriending interventions. *Journal of Adolescence, 22,* 461-466.

Boulton, M.J., & Underwood, K. (1992). Bully/victim problems among middle school children. *British Journal of Educational Psychology, 62,* 73-87.

Bronfrenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

Brown, B.B. (1990). Peer groups and peer cultures. In S. Feldman & G.R. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 171-196). Cambridge, MA: Harvard University Press.

Buhs, E.S., Ladd, G.W., & Herald, S.L. (2006). Peer exclusion and victimization: Processes that mediate the relation between peer group rejection and children's classroom engagement and achievement? *Journal of Educational Psychology, 98,* 1-13.

Carnegie Council on Adolescent Development. (1989). *Turning points: Preparing American youth for the 21st century.* New York: Carnegie Corp.

Carnegie Council on Adolescent Development. (1995). *Great transitions: preparing adolescents for a new century*. New York: Carnegie Corp.

Caprara, G.V., Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P.G. (2000). Prosocial foundations of children's academic achievement. *Psychological*

Science, 11, 302-306.

Chan, A., & Poulin, F. (2007). Monthly changes in the composition of friendship networks in early adolescence. *Merrill-Palmer Quarterly, 53*, 578-602.

Chung, H., Elias, M., & Schneider, K. (1998). Patterns of individual adjustment changes during middle school transition. *Journal of School Psychology, 36*, 83-101.

Cicchetti, D. (2006). Development and psychopathology. In (Eds.), *Developmental psychopathology: Theory and method* (pp. 1-23). Hoboken, NJ: John Wiley & Sons Inc.

Conduct Problems Prevention Research Group (CPPRG). (1992). A developmental and clinical model for the prevention of conduct disorder: The fast track program. *Development and Psychopathology, 4*, 509-527.

Conduct Problems Prevention Research Group (CPPRG). (1998). *Social health profile and TOCA-R: Technical report*. Retrieved online at http://fasttrackproject.org.

Cook, T.D., Deng, Y., & Morgano, E. (2007). Friendship influences during early adolescence: The special role of friends' grade point average. *Journal of Research on Adolescence, 17*, 325-356.

Craig, W.M., Pepler, D., Connolly, J., & Henderson, K. (2001). Developmental context of peer harassment in early adolescence: The role of puberty and the peer group. In J. Juvonen, & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 242-262). New York: Guilford.

Crick, N. R., Casas, J. F., & Ku, H. C. (1999). Relational and physical forms of peer victimization in preschool. *Developmental Psychology, 35*, 376–385.

Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, physical aggression,

and social–psychological adjustment. *Child Development, 66,* 710–722.

Crick, N.R., & Nelson, D.A. (2002). Relational and physical victimization within friendships: Nobody told me there'd be friends like these. *Journal of Abnormal Child and Psychology, 30,* 599-607.

Cullerton-Sen, C., & Crick, N.R. (2005). Understanding the effects of physical and relational victimization: The utility of multiple perspectives in predicting social-emotional adjustment. *School Psychology Review, 34,* 147-160.

Dishion, T.J., Capaldi, D., Spracklen, K.M., & Li, F. (1995). Peer ecology of male adolescent drug use. *Development and Psychopathology, 7,* 803-824.

Duncan, S.C., Duncan, T.E., & Strycker, L.A. (2000). Risk and protective factors influencing adolescent problem behavior: A multivariate latent growth curve analysis. *Annals of Behavioral Medicine, 22,* 103-109.

Eccles, J.S., & Harold, R.D. (1993). Parent-school involvement during the early adolescent years. *Teachers College Record, 94,* 568-587.

Eccles, J.S., Lord, S., & Roeser, R.W. (1996). Round holes, square pegs, rocky roads, and sore feet: A discussion of stage-environment fit theory applied to families and school. In D. Cicchetti & S.L. Toth (Eds.), *Rochester symposium on developmental psychopathology: Vol. 7. Adolescence: Opportunities and challenges* (pp. 47-92). Rochester, NY: University of Rochester Press.

Eccles, J.S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In N. Eisenberg (Ed.), W. Damon (Series Ed.), *Handbook of child psychology: Vol. 4. Personality and social development*. New York: Wiley.

Erath, S. A., Flanagan, K. S., & Bierman, K. L. (2007). Social anxiety and peer relations in early adolescence: Behavioral and cognitive factors. *Journal of Abnormal Child Psychology, 35*, 405-416.

Erath, S.A., Flanagan, K.S., & Bierman, K.L. (2008). Early adolescent school adjustment: Associations with friendship and peer victimization. *Social Development, 17*, 853-870.

Fenzel, M.L. (1989). Role strain in early adolescence: A model for investigating school transition stress. *Journal of Early Adolescence, 9*, 13-33.

Fenzel, M.L. (2000). Prospective study of changes in global self-worth and strain during the transition to middle school. *Journal of Early Adolescence, 20*, 93-116.

Fox, C.L., & Boulton, M.J. (2006). Friendships as a moderator of the relationship between social skills problems and peer victimization. *Aggressive Behavior, 32*, 110-121.

Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development, 63*, 103-115.

Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*, 148–162.

George, T.P., & Hartmann, D.P. (1996). Friendships networks of unpopular, average, and popular children. *Child Development, 67*, 2301-2316.

Ginsburg, G.S., La Greca, A.M., & Silverman, W.K. (1998). Social anxiety in children with anxiety disorders: Relation with social and emotional functioning. *Journal of Abnormal Child Psychology, 26*, 175-185.

Guroglu, B., van Lieshout, C.F.M., Haselager, G.J.T., Scholte, R.H.J. (2007). Similarity

and complementarity of behavioral profiles of friendship types and types of friends: Friendships and psychosocial adjustment. *Journal of Research on Adolescence, 17,* 357-386.

Hanish, L.D., & Guerra, N.G., (2002). A longitudinal analysis of patterns of adjustment following peer victimization. *Development and Psychopathology, 14,* 69-89.

Hankin, B.J., Abramson, L.Y., Silva, P.A., McGee, R., Moffitt, T.E., & Angell, K.E. (1998). Development of depression from preadolescence to young adulthood: Emerging gender differences in a 10-year longitudinal study. *Journal of Abnormal Psychology, 107,* 128-140.

Haselager, G.J.T., Hartup, W.W., van Lieshout, C.F.M., & Riksen-Walraven, J.M.A. (1998). Similarities between friends and nonfriends in middle childhood. *Child Development, 69,* 1198-1208.

Hawker, D. S. J., & Boulton, M. J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry, 41*, 441–455.

Hodges, E.V.E., Boivin, M., Vitaro, F., & Bukowski, W.M. (1999). The power of friendships: Protection against an escalating cycle of peer victimization. *Developmental Psychology, 35*, 94-101.

Hodges, E.V.E., Malone, M.J., & Perry, D.G. (1997). Individual risk and social risk as interacting determinants of victimization in the peer group. *Developmental Psychology, 33,* 1032-1039.

Hoover, J.H., Oliver, R., & Hazler, R.J. (1992). Bullying: Perceptions of adolescent victims in the Midwestern USA. *School Psychology International, 13*, 5-16.

Inderbitzen-Nolan, H.M., & Walters, K.S. (2000). Social anxiety scale for adolescents: Normative data and further evidence of construct validity. *Journal of Clinical Child Psychology, 29,* 360-371.

Juvonen, J., Nishina, A., & Graham, S. (2000). Peer harassment, psychological adjustment, and school functioning in early adolescence. *Journal of Educational Psychology, 92,* 349-359.

Juvonen, J., Nishina, A., Graham, S. (2001). Self-views versus peer perceptions of victim status among early adolescents. *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 105-124). New York: Guilford.

Kandel, D.B. (1978). Homophily, selection, and socialization in adolescent friendships. *American Journal of Sociology, 84,* 427-436.

Kingery, J.N., & Erdley, C.A. (2007). Peer experiences as predictors of adjustment across the middle school transition. *Education and Treatment of Children, 30,* 73-88.

Kochenderfer, B.J. (1995). *Peer victimization in kindergarten: Stability and its relation to school adjustment.* Poster session presented at the meeting of the Society for Research in Child Development, Indianapolis, IN.

Kochenderfer-Ladd, B. (2004). Peer victimization: The role of emotions in adaptive and maladaptive coping. *Social Development, 13,* 229-349.

Kochenderfer, B.J., & Ladd, G.W. (1996). Peer victimization: Cause or consequences of school maladjustment? *Child Development, 67,* 1305-1317.

Kochenderfer-Ladd, B., & Ladd, G.W. (2001). Variations in peer victimization: Relations to children's maladjustment. In J. Juvonen & S. Graham (Eds.), *Peer harassment*

in school: The plight of the vulnerable and victimized (pp. 25-48). New York: Guildford Press.

Kochenderfer-Ladd, B., & Skinner, K. (2002). Children's coping strategies: Moderators of the effects of peer victimization? *Developmental Psychology, 38*, 267-278.

Ladd, G.W., Kochenderfer, B.J., & Coleman, C.C. (1997). Friendship quality as a predictor of young children's early school adjustment. *Child Development, 67,* 1103-1118.

Ladd, G.W., & Price, J.M. (1987). Predicting children's social and school adjustment following the transition from preschool to kindergarten. *Child Development, 58,* 1168-1189.

La Greca, A.M., & Harrison, H.M. (2005). Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and depression? *Journal of Clinical Child and Adolescent Psychology, 34*, 49-61.

La Greca, A.M. & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology, 26*, 83-94.

La Greca, A.M., & Stone, W.L. (1993). Social anxiety scale for children-revised: Factor structure and concurrent validity. *Journal of Clinical Child Psychology, 22*, 17-27.

Laird, R.D., Jordan, K.Y., Dodge, K.A., Pettit, G.S., & Bates, J.E. (2001). Peer rejection in childhood, involvement with antisocial peers in early adolescence, and the development of externalizing behavior problems. *Development and Psychopathology, 13*, 337-354.

Lamarche, V., Brendgen, M., Boivin, M., Vitaro, F., & Perusse, D. (2006). Do friendships and sibling relationships provide protection against peer victimization in a similar way? *Social Development, 15,* 373-293.

Lansford, J.E., & Parker, J.G. (1999). Children's interactions in tryads: Behavioral profiles and effects of gender and patterns of friendship among members. *Developmental Psychology, 35,* 80-93.

Lavallee, K. L., Bierman, K. L., Nix, R. L., & the Conduct Problems Prevention Research Group (2005). The impact of first grade "friendship group" experiences on child social outcomes in the Fast Track program. *Journal of Abnormal Child Psychology, 33,* 307-324.

Masten, A. (1994). Resilience in individual development: Successful adaptation despite risk and adversity. In M.C. Wang & E.W. Gordon (Eds.) *Educational Resilience in Inner-city America* (pp. 3-26). New Jersey: Lawrence Erlbaum Associates.

Masten, A., & Coatsworth, J.D. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist, 53,* 205-220.

McCartney, K., Bub, K.L., & Burchinal, M. (2006). Selection, detection, and reflection. *Monographs of the Society for Research in Child Development, 71,* 105-126.

McDougall, P. & Hymel, S. (1998). Moving into middle school: Individual differences in the transition experience. *Canadian Journal of Behavioural Science, 30,*108-120

McDougall, P., & Hymel, S. (2007). Same-gender versus cross-gender friendship conceptions: Similar or different? *Merrill-Palmer Quarterly, 53*, 347-380.

Midgley, C., Anderman, E., & Hicks, L. (1995). Differences between elementary and

middle school teachers and students: A goal theory approach. *Journal of Early Adolescence, 15,* 90-113.

Nansel, T. R., Overbeck, M., Pilla, R. S., Ruan, W. J., Simon-Morton, B., & Scheidt, P. (2001). Bullying behaviors among US youth: Prevalence and association with psychosocial adjustment. *Journal of the American Medical Association, 285,* 2094-2100.

Nelson, R.M., & DeBacker, T.K. (2008). Achievement motivation in adolescents: The role of peer climate and best friends. *The Journal of Experimental Education, 76,* 170-189.

Newcomb, A. F., & Bagwell, C. L. (1995). Children's friendship relations: A meta-analytic review. *Psychological Bulletin, 117,* 306–347.

Nishina, A., & Juvonen, J. (2005). Daily Reports of Witnessing and Experiencing Peer Harassment in Middle School. *Child Development, 76,* 435-450.

Nolen-Hoeksema, S., & Girgus, J.S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin, 115,* 195-206.

Olweus, D. (1992). Victimization by peers: Antecedents and long-term outcomes. In K.H. Rubin & J.B. Asendorpf (Eds.), *Social withdrawal, inhibition, and shyness in childhood* (pp. 315-3410). Hillsdale, NJ: Erlbaum.

Parker, J.G., & Asher, S.R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology, 29,* 611-621.

Parker, J.G., & Herrera, C. (1996). Interpersonal processes in friendship: A comparison of abused and nonabused children's experiences. *Developmental Psychology, 32,*

1025-1038.

Parker, J.G., Rubin, K.H., Erath, S.A., Wojslawowicz, J.C., & Buskirk, A.A. (2006). Peer relationship, child development, and adjustment: A developmental psychopathology perspective. In D. Cicchetti, D.J. Cohen, (Eds.), *Developmental Psychopathology: Theory and method* (pp. 419-493). Hoboken, NJ: John Wiley & Sons Inc.

Parker, J.G., Rubin, K.H., Price, J., & DeRosier, M.E. (1995). Peer relationships, child development, and adjustment: A developmental psychopathology perspective. In D. Cicchetti, D. Cohen (Eds.), *Developmental Psychopathology*: Vol. 2: Risk, disorder, and adaptation (pp. 96-161). New York: Wiley.

Pearlin, L.I. (1983). Role strains and personal stress. In H.B. Kaplan (Ed.), *Psychological stress* (pp. 3-32). New York: Academic Press.

Preacher, K.J., Curran, P.J., & Bauer, D.J., (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics, 31*, 437-448.

Pristein, M.J. (2007). Moderators of peer contagion: A longitudinal examination of depression socialization between adolescents and their best friends. *Journal of Clinical Child and Adolescent Psychology, 36*, 159-170.

Prinstein, M.J., & Dodge, K. (2008). *Understanding peer influence in children and adolescents.* New York: Guilford Press.

Roeser, R.W., Eccles, J.S., & Sameroff, A.J. (2000). School as a context of early adolescents' academic and social-emotional development: Summary of research findings. *The Elementary School Journal*, *100*, 443-471.

Rose, A. J. (2002). Co-rumination in the friendships of girls and boys. *Child Development, 73,* 1830-1843.

Rose, A.J., Carlson, W., & Waller, E.M. (2007). Prospective associations of co-rumination with friendship and emotional adjustment: Considering the socioemotional trade-offs of co-rumination. *Developmental Psychology, 43,* 1019-1031.

Rose, A.J., & Rudolph, K.D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin, 132,* 98-131.

Rubin, K. H., & Coplan, R. J. (2004). Paying attention to and not neglecting social withdrawal and social isolation. *Merrill-Palmer Quarterly, 50,* 506-534.

Rubin, K.H., Coplan, R. Chen, X., Buskirk, A.A., Wojslawowicz, J.C. (2005). Peer relationships in childhood. In M.H. Bornstein & M.E. Lamb (Eds.), *Developmental science: An advanced textbook* (pp. 469-512). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Rubin, K.H., Wojslawowicz, J.C., Rose-Krasnor, L., Booth-LaForce, C., & Burgess, K.B. (2006). The best friendships of shy/withdrawn children: Prevalence, stability, and relationship quality. *Journal of Abnormal Child Psychology, 34,*143-157.

Rudolph, K.D., Lambert, S.F., Clark, A.G., & Kurlakowsky, K.D. (2001). Negotiating the transition to middle school: the role of self-regulatory processes. *Child Development, 72,* 929-946.

Olweus, D. (1992). Victimization by peers: Antecedents and long-term outcomes. In K.H. Rubin & J.B. Asendorpf (Eds.), *Social withdrawal, inhibition, and shyness*

in childhood (pp. 315-3410. Hillsdale, NJ: Erlbaum.

Schmidt, M.E., & Bagwell, C.L. (2007). The protective role of friendships in overtly and relationally victimized boys and girls. *Merrill-Palmer Quarterly, 53*, 439-460.

Schwartz, D., Dodge, K.A., Pettit, G.S., Bates, J.E. (2009). Peer victimization during middle childhood as a predictor of academic functioning during adolescence. (Manuscript under review).

Schwartz, D., Gorman, A.H., Dodge, K.A., Pettit, G.S., & Bates, J.E. (2008). Friendships with peers who are low or high in aggression as moderators of the link between peer victimization and declines in academic functioning. *Journal of Abnormal Child Psychology*, *36*,719-730.

Schwartz, D., Gorman, A.H., Nakamoto, J., & Toblin, R.L. (2005). Victimization in the peer group and children's academic functioning. *Journal of Educational Psychology*, *97*, 425-435.

Solberg, M.E., & Olweus, D. (2003). Prevalence estimation of school bullying with the Olweus Bully/Victim Questionnaire. *Aggressive Behavior, 29*, 239-268.

Storch, E. A., & Masia, C. L. (2001). Peer victimization and social anxiety and distress in adolscence. In M. Prinstein (Chair), Peer relationships, social anxiety, and developmental psychopathology. Symposium presented at the annual meeting of the Association for the Advancement of Behavioural Therapy, Philadelphia, PA, November.

Storch, E.A., Masia-Warner, C., Dent, H.C., Roberti, J.W., & Fisher, P.H. (2004). Psychometric evaluation of the social anxiety scale for adolescents and the social

phobia and anxiety inventory for children: Construct validity and normative data. *Journal of Anxiety Disorders, 18,* 665-679.

Storch, E.A., Nock, M.K., Masia-Warner, C., & Barlas, M.E. (2003). Peer victimization and social-psychological adjustment in Hispanic and African-American Children. *Journal of Child and Family Studies, 12,* 439-452.

Sullivan, H.S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.

Sullivan, T.N., Farrell, A.D., & Kliewer, W. (2006). Peer victimization in early adolescence: Association between physical and relational victimization and drug use, aggression, and delinquent behaviors among urban middle school students. *Development and Psychopathology, 18,* 119-137.

Vitaro, F., Brendgen, M., & Wanner, B. (2005). Patterns of affiliation with delinquent friends during late childhood and early adolescence: Correlates and consequences. *Social Development, 14,* 82-108.

Wentzel, K. R. (1996). Social goals and social relationships as motivators of school adjustment. In J. Juvonen, & K. R. Wentzel (Eds.), *Social motivation: Understanding children's school adjustment* (pp. 226–247). New York: Cambridge University Press.

Wentzel, K.R., Barry, C.M., & Caldwell, K.A. (2004). Friendships in middle school: Influences on motivation and school adjustment. *Journal of Educational Psychology, 96,* 195-203.

Wentzel, K. R., & Caldwell, K. (1997). Friendships, peer acceptance, and group membership: Relations to academic achievement in middle school. *Child Development, 68,* 1198–1209.

Wentzel, K.R., & McNamara, C.C. (1999). Interpersonal relationships, emotional distress, and prosocial behavior in middle school. *Journal of Early Adolescence, 19*, 114-125.

APPENDICES

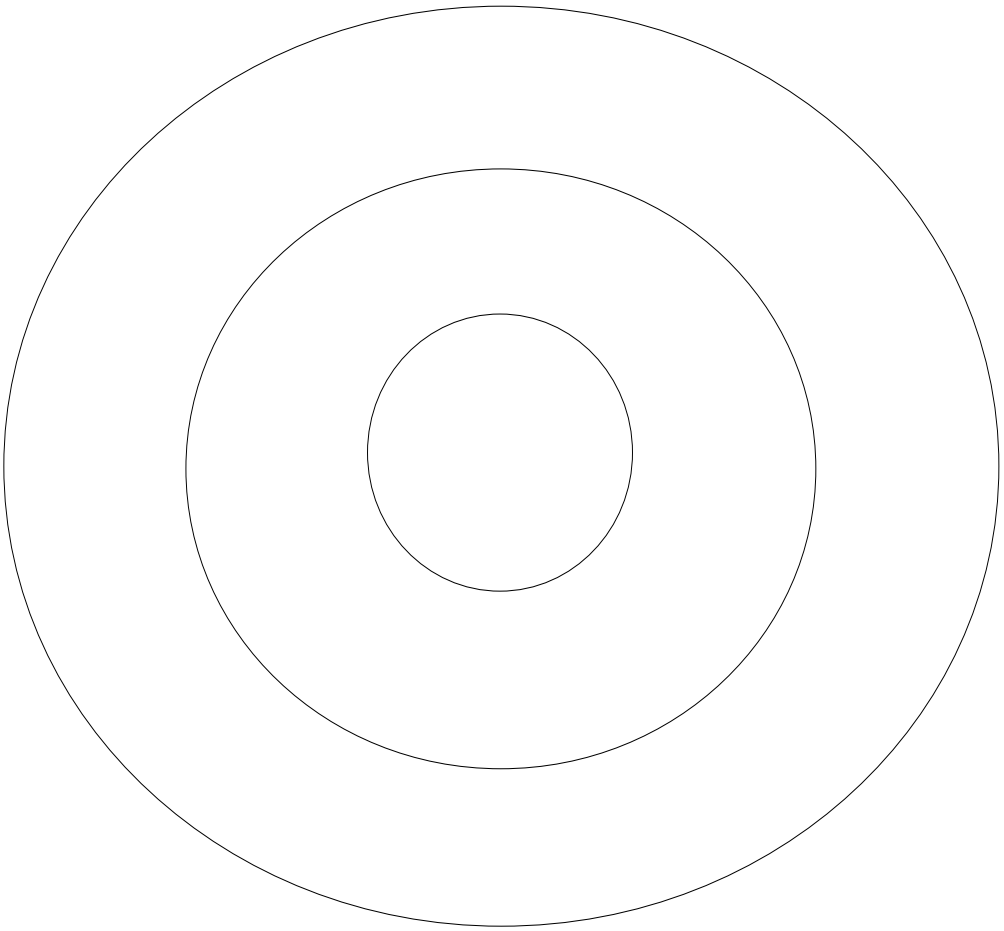
Appendix A

Measures

The Peer Social Network Diagram (Lansford & Parker, 1999)

In this section, please write the full first and last names of your friends (do not use nicknames). If you are not sure about a friend's last name, write the last initial or put a star by the friend's name.

1) In the center circle put the names (first and last) of your very best friend or friends.
2) In the second circle put the names of people whom you consider to be good friends but not quite as special as those in the first circle.
3) In the third circle put the names of all your remaining friends.



Self-reported Peer Victimization (Craig et al., 2001)

The following is a list of behaviors that sometimes happen between people your age. For each behavior circle the number that best describes how often these things were done to you, DURING THE LAST TWO MONTHS.

1. Pushing or shoving…

1	2	3	4
Never	Sometimes	Often	Always

2. Stealing or destroying your things to be mean…

1	2	3	4
Never	Sometimes	Often	Always

3. Teasing or insulting…

1	2	3	4
Never	Sometimes	Often	Always

4. Telling rumors or lies about you…

1	2	3	4
Never	Sometimes	Often	Always

5. Ignoring you or keeping you out of a group…

1	2	3	4
Never	Sometimes	Often	Always

(modified version of the Victimization Questionnaire; Craig et al., 2001)

Teacher-reported Prosocial Behaviors (CPPRG, 1992, Ladd & Profilet, 1996)

For each statement, please indicate how well it describes this child.

1. This child is friendly…

1	2	3	4	5
Almost Never	Rarely	Sometimes	Most of the time	All of the time

2. This child is helpful to others…

1	2	3	4	5
Almost Never	Rarely	Sometimes	Most of the time	All of the time

3. This child can give suggestions and opinions without being bossy…

1	2	3	4	5
Almost Never	Rarely	Sometimes	Most of the time	All of the time

4. This child is good at understanding other people's feelings…

1	2	3	4	5
Almost Never	Rarely	Sometimes	Most of the time	All of the time

5. This child is kind and cooperative with peers…

1	2	3	4	5
Almost Never	Rarely	Sometimes	Most of the time	All of the time

6. This child controls his/her temper in a disagreement…

1	2	3	4	5
Almost Never	Rarely	Sometimes	Most of the time	All of the time

7. This child resolves problems with peers on his/her own…

1	2	3	4	5
Almost Never	Rarely	Sometimes	Most of the time	All of the time

(selected items from the SHP and Child Behavior Scale; CPPRG, 1992, Ladd & Profilet, 1996)

Social Anxiety Scale for Adolescents (La Greca & Lopez, 1998)

Read each of the following sentences carefully and circle the number that shows how true you think it is of you, in general.

1. I worry about doing something new in front of others…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

2. I worry about being teased…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

3. I feel shy around people I don't know…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

4. I only talk to people I know really well…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

5. I feel that peers talk about me behind my back…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

6. I worry about what others think of me…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

7. I'm afraid that others will not like me…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

8. I get nervous when I talk to peers I don't know very well…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

9. I worry about what others say about me…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

10. I get nervous when I meet new people…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

11. I worry that others don't like me…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

12. I am quiet when I'm with a group of people…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

13. I feel that others make fun of me....

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

14. If I get into an argument, I worry that the other person will not like me…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

15. I'm afraid to invite others to do things with me because they might say no…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

16. I feel nervous when I'm around certain people…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

17. I feel shy even with peers I know very well…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

18. It's hard for me to ask others to do things with me…

1	2	3	4	5
Not at all	Hardly Ever	Sometimes	Most of the time	All of the time

School Liking and Avoidance Questionnaire (Ladd & Price, 1987)

Read each of the following sentences carefully and circle the number that shows how true you think it is for you.

1. I like being in my school.

1	2	3	4	5
Not at all true	Not true	Somewhat true	Mostly true	Really true

2. I wish I could stay home from my school.

1	2	3	4	5
Not at all true	Not true	Somewhat true	Mostly true	Really true

3. When I get up in the morning, I feel happy about going to my school.

1	2	3	4	5
Not at all true	Not true	Somewhat true	Mostly true	Really true

4. I wish I could move to another school.

1	2	3	4	5
Not at all true	Not true	Somewhat true	Mostly true	Really true

5. I would be much happier if I could go to a different school.

1	2	3	4	5
Not at all true	Not true	Somewhat true	Mostly true	Really true

Loneliness and Social Dissatisfaction Questionnaire (Adapted)
(Asher, Hymel, & Renshaw, 1984)

1. I'm lonely at school.

1	2	3	4	5
Not at all true	Not true	Somewhat true	Mostly true	Really true

2. I feel left out of things at school.

1	2	3	4	5
Not at all true	Not true	Somewhat true	Mostly true	Really true

3. I feel alone at school.

1	2	3	4	5
Not at all true	Not true	Somewhat true	Mostly true	Really true

Appendix B

Tables

Table 1.

Descriptive Statistics for All Study Variables

	N	Minimum	Maximum	*M*	*SD*
SR Victimization	319	1.00	4.00	1.57	.59
PR Victimization	319	0	18.00	.84	2.24
Log10 transformed PR Victimization	319	0	1.28	.15	.26
Friends' Prosocial Skills	319	2.00	5.00	3.95	.53
Friends' Social Anxiety	319	1.00	4.06	1.97	.46
Friends' PR Victimization	319	0	9.00	.73	1.31
Log10 transformed Friends' PR Vic	319	0	1.00	.17	.21
Academic Competence	319	1.00	5.00	3.78	.99
School Liking (SR)	319	1.00	5.00	3.71	.79
Loneliness at School (SR)	319	1.00	5.00	1.34	.66

Table 2.

Descriptive Statistics and Individual t-tests for All Study Variables by Gender and Grade

		Gender			Grade		
	N	Boys Mean (*SD*)	Girls Mean (*SD*)	*t*	Sixth Mean (*SD*)	Seventh Mean (*SD*)	*t*
SR Victimization	319	1.66 (.65)	1.51 (.55)	-2.16	1.56 (.58)	1.57 (.60)	-.10
PR Victimization	319	1.32 (3.32)	.56 (1.17)	-2.40***	.86 (1.54)	.83 (2.51)	.10
Friends' Prosocial Skills	319	3.86 (.58)	4.01 (.49)	2.35*	3.88 (.59)	3.99 (.50)	-1.61**
Friends' Social Anxiety	319	1.86 (.47)	2.02 (.45)	3.15	1.99 (.55)	1.95 (.41)	.74***
Friends' PR Victimization	319	.91 (1.65)	.61 (1.03)	-1.78***	.87 (1.25)	.64 (1.32)	1.47
Academic Competence	319	3.71 (1.06)	3.82 (.95)	.98^{+}	3.57 (1.12)	3.88 (.92)	-2.37^{+}
School Liking	319	3.47 (.85)	3.86 (.72)	4.10^{+}	3.76 (82)	3.70 (.78)	.64
Loneliness at School	319	1.40 (.76)	1.31 (.60)	-1.09*	1.36 (.68)	1.33 (.66)	.43

$^{+}$ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 3.

Correlations for all Study Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Gender	-										
2. Grade	.05	-									
3. Number of Mutual Friends	-.29***	.28***	-								
4. SR Victimization	.12*	.01	-.12*	-							
5. PR Victimization	.16**	-.01	-.20***	.32***	-						
6. Friends' Prosocial Behaviors	-.14*	.10^{+}	.16**	-.07	-.07	-					
7. Friends' Social Anxiety	-.17**	-.05	-.08	-.01	.03	-.12*	-				
8. Friends' PR Victimization	.11*	-.08	-.24***	.14**	.12*	-.26***	.34***	-			
9. TR Academic Competence	-.06	.14**	.38***	-.12*	-.12*	.37***	-.21***	-.28***	-		
10. SR School Liking	-.23***	-.04	.19***	-.22***	-.16**	.13*	.08	-.09	.29***	-	
11. SR Loneliness	.07	.02	-.15**	.47***	.32***	-.02	.05	.07	-.07	-.24***	-

$^{+}p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 4.

Regression Model for Academic Competence using Peer-reported Victimization

Predictors	β	B	SE	ΔR^2
Step 1: Controls				.15***
Gender	.05	.11	.11	
Grade	.03	.06	.12	
# Mutual Friends	.39***	.09	.01	
Step 2:				.02**
Participants' PR Victimization (PV)	-.15**	-.55	.20	
Step 3: Main Effects				.12***
Friends' Prosocial Behaviors	.28***	.52	.09	
Friends' Social Anxiety	-.10*	-.22	.11	
Friends' PR Victimization	$-.10^{+}$	-.47	.25	
Step 4: Interactions				.02*
PV x Friends' Prosocial	.15**	.96	.37	
PV x Friends' Social Anxiety	-.11*	-.86	.44	
PV x Friends' PR Victimization	.06	.86	.85	
Step 5: Gender Interaction				.00
Gender x PV	.06	.30	.40	
Step 6: 2 way interactions				.00
Gender x Friends' Prosocial	.01	.03	.20	
Gender x Friends' Anxiety	.04	.06	.24	
Gender x Friends' PR Victimization	-.03	-.19	.52	
Step 7: 3 way interactions				.012
Gender x PV x Friends' Prosocial	.07	.52	.82	
Gender x PV x Friends' Anxiety	-.17*	-2.10	1.05	
Gender x PV x Friends' PR Victimization	$.16^{+}$	3.23	1.80	

$^{+}$ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 5.

Regression Model for School Liking using Peer-reported Victimization

Predictors	β	B	SE	ΔR^2
Step 1: Controls				.08***
Gender	-.19***	-.31	.09	
Grade	-.07	-.12	.10	
# Mutual Friends	.16**	.03	.01	
Step 2:				.01
Participants' PR Victimization (PV)	-.09	-.27	.17	
Step 3: Main Effects				.01
Friends' Prosocial Behaviors	.09	.13	.08	
Friends' Social Anxiety	.10^{+}	.16	.10	
Friends' PR Victimization	-.04	-.16	.22	
Step 4: Interactions				.01
PV x Friends' Prosocial	-.03	-.17	.34	
PV x Friends' Social Anxiety	.09	.57	.40	
PV x Friends' PR Victimization	-.02	-.20	.77	
Step 5: Gender Interaction				.00
Gender x PV	.07	.26	.37	
Step 6: 2 way interactions				.01
Gender x Friends' Prosocial	.01	.01	.18	
Gender x Friends' Anxiety	-.14	-.18	.22	
Gender x Friends' PR Victimization	-.06	-.30	.47	
Step 7: 3 way interactions				.01
Gender x PV x Friends' Prosocial	-.13	-.86	.74	
Gender x PV x Friends' Anxiety	.09	.88	.96	
Gender x PV x Friends' PR Victimization	.02	.31	1.63	

$^{+}$ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 6.

Regression Models for Loneliness at School using Peer-reported Victimization

Predictors	β	B	SE	ΔR^2
Step 1: Controls				.02^{+}
Gender	.02	.03	.08	
Grade	.02	.02	.08	
# Mutual Friends	-.15*	-.02	.01	
Step 2:				.04***
Participants' PR Victimization (PV)	.22***	.55	.14	
Step 3: Main Effects				.00
Friends' Prosocial Behaviors	.04	.05	.07	
Friends' Social Anxiety	.03	.05	.09	
Friends' PR Victimization	-.01	-.02	.19	
Step 4: Interactions				.02^{+}
PV x Friends' Prosocial	-.08	-.35	.28	
PV x Friends' Social Anxiety	-.06	-.31	.34	
PV x Friends' PR Victimization	-.10	-.94	.65	
Step 5: Gender Interaction				.03***
Gender x PV	.30***	.99	.30	
Step 6: 2 way interactions				.01
Gender x Friends' Prosocial	-.03	-.06	.15	
Gender x Friends' Anxiety	-.22	-.23	.18	
Gender x Friends' PR Victimization	-.09	-.40	.39	
Step 7: 3 way interactions				.01
Gender x PV x Friends' Prosocial	-.02	-.11	.61	
Gender x PV x Friends' Anxiety	-.11	-.94	.79	
Gender x PV x Friends' PR Victimization	-.03	-.33	1.35	

$^{+}$ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 7.

Regression Models for Academic Competence using Self-reported Victimization

Predictors	β	B	SE	ΔR^2
Step 1: Controls				.15***
Gender	.05	.11	.11	
Grade	.03	.06	.12	
# Mutual Friends	.39***	.09	.01	
Step 2:				.01
Participants' SR Victimization (Vic)	-.08	-.13	.09	
Step 3: Main Effects				.12***
Friends' Prosocial Behaviors	.28***	.53	.09	
Friends' Social Anxiety	-.11*	-.23	.11	
Friends' PR Victimization	-.11*	-.50	.25	
Step 4: Interactions				.00
Vic x Friends' Prosocial	-.03	-.08	.15	
Vic x Friends' Social Anxiety	-.05	-.15	.17	
Vic x Friends' PR Victimization	-.02	-.14	.40	
Step 5: Gender Interaction				.01*
Gender x Vic	.14*	.35	.17	
Step 6: 2 way interactions				.00
Gender x Friends' Prosocial	.02	.06	.20	
Gender x Friends' Anxiety	.16	.26	.24	
Gender x Friends' PR Victimization	-.03	-.16	.51	
Step 7: 3 way interactions				.00
Gender x Vic x Friends' Prosocial	.04	.16	.32	
Gender x Vic x Friends' Anxiety	.02	.07	.36	
Gender x Vic x Friends' PR Victimization	.00	.02	.86	

$^{+}$ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 8.

Regression Models for School Liking using Self-reported Victimization

Predictors	β	B	SE	ΔR^2
Step 1: Controls				.08***
Gender	-.19***	-.31	.09	
Grade	-.07	-.12	.10	
# Mutual Friends	.16**	.03	.01	
Step 2:				.03***
Participants' SR Victimization (Vic)	-.18***	-.24	.07	
Step 3: Main Effects				.01
Friends' Prosocial Behaviors	.09	.13	.08	
Friends' Social Anxiety	.09	.15	.10	
Friends' PR Victimization	-.04	-.13	.22	
Step 4: Interactions				.01
Vic x Friends' Prosocial	-.07	-.16	.13	
Vic x Friends' Social Anxiety	-.03	-.06	.15	
Vic x Friends' PR Victimization	-.05	-.25	.36	
Step 5: Gender Interaction				.01
Gender x Vic	-.11	-.22	.15	
Step 6: 2 way interactions				.01
Gender x Friends' Prosocial	.03	.06	.18	
Gender x Friends' Anxiety	-.16	-.21	.21	
Gender x Friends' PR Victimization	-.03	-.17	.45	
Step 7: 3 way interactions				.01
Gender x Vic x Friends' Prosocial	-.08	-.27	.29	
Gender x Vic x Friends' Anxiety	.13	.44	.33	
Gender x Vic x Friends' PR Victimization	-.15	-1.05	.76	

$^{+}$ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 9.

Regression Models for Loneliness at School using Self-reported Victimization

Predictors	β	B	SE	ΔR^2
Step 1: Controls				.02^{+}
Gender	.02	.03	.08	
Grade	.02	.02	.08	
# Mutual Friends	-.15*	-.02	.01	
Step 2:				.19***
Participants' SR Victimization (Vic)	.45***	.50	.06	
Step 3: Main Effects				.00
Friends' Prosocial Behaviors	.03	.04	.07	
Friends' Social Anxiety	.06	.08	.08	
Friends' PRVictimization	-.03	-.09	.17	
Step 4: Interactions				.02^{+}
Vic x Friends' Prosocial	-.11*	-.22	.10	
Vic x Friends' Social Anxiety	-.01	-.02	.12	
Vic x Friends' PR Victimization	-.09	-.41	.28	
Step 5: Gender Interaction				.02**
Gender x Vic	.18**	.30	.12	
Step 6: 2 way interactions				.01
Gender x Friends' Prosocial	-.07	-.13	.14	
Gender x Friends' Anxiety	-.17	-.18	.17	
Gender x Friends' PR Victimization	-.01	-.03	.35	
Step 7: 3 way interactions				.01
Gender x Vic x Friends' Prosocial	-.03	-.09	.22	
Gender x Vic x Friends' Anxiety	-.15^{+}	-.42	.26	
Gender x Vic x Friends' PR Victimization	-.09	-.50	.59	

$^{+}$ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Appendix C

Figures

Figure 1. *Friends' prosocial behavior as moderator between* p*eer-reported victimization and academic competence.*

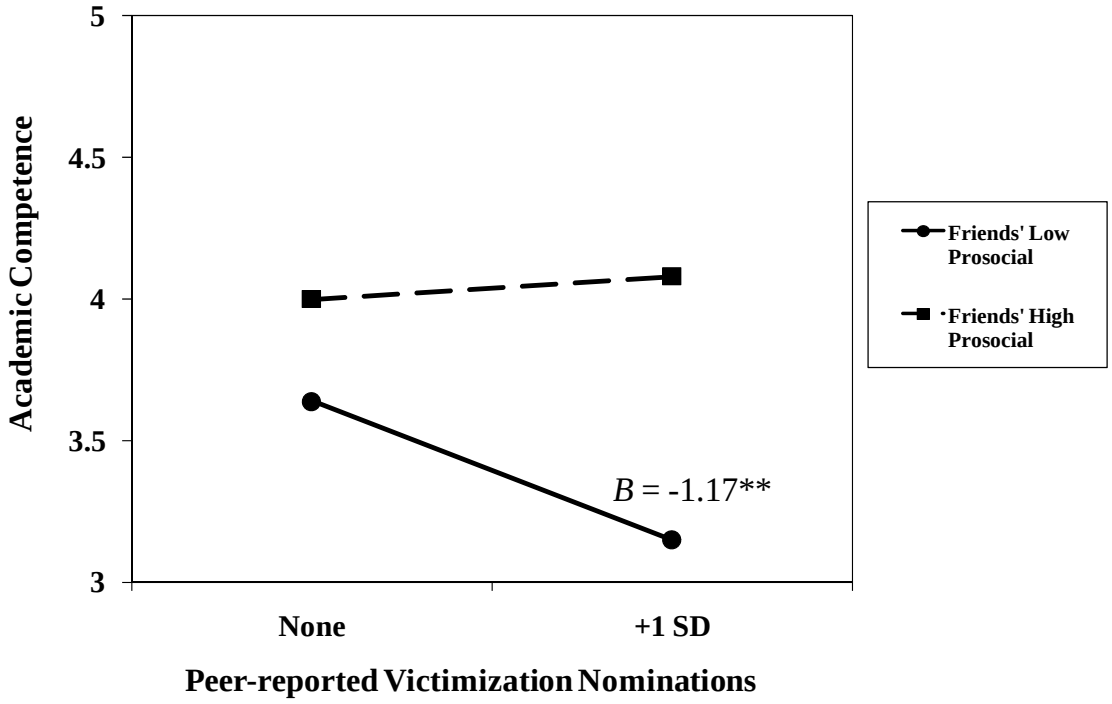


Figure 2. *Friends' social anxiety as moderator between peer-reported victimization and academic competence.*

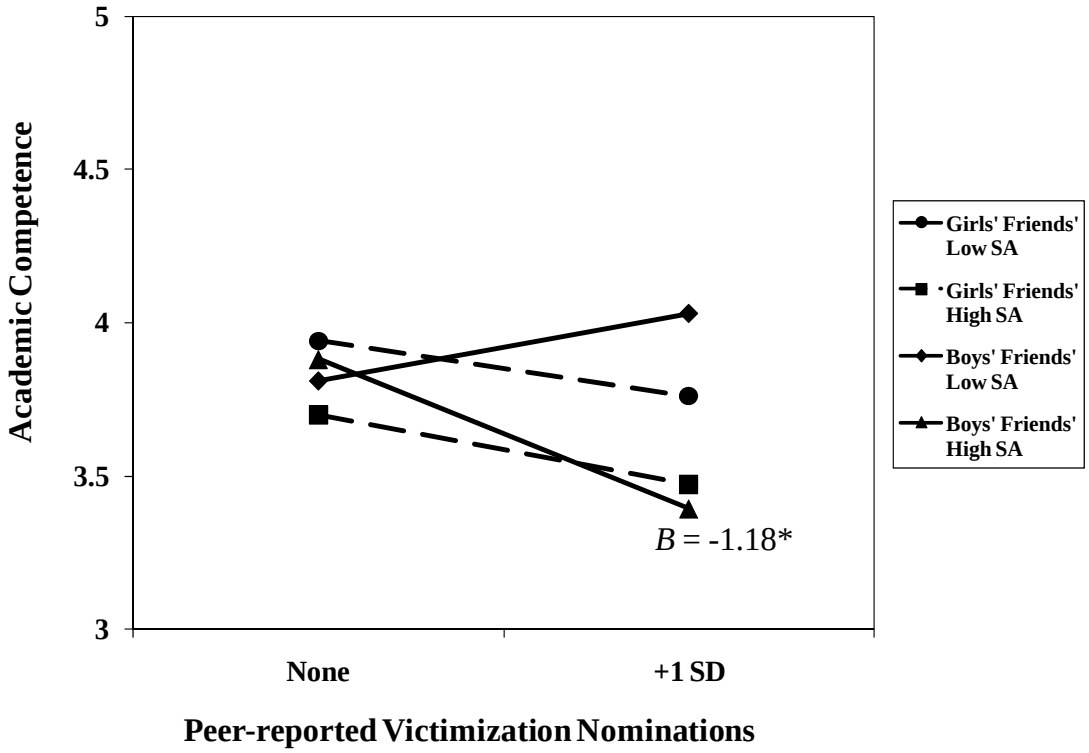


Figure 3. *Friends' peer victimization as moderator between peer-reported victimization and academic competence.*

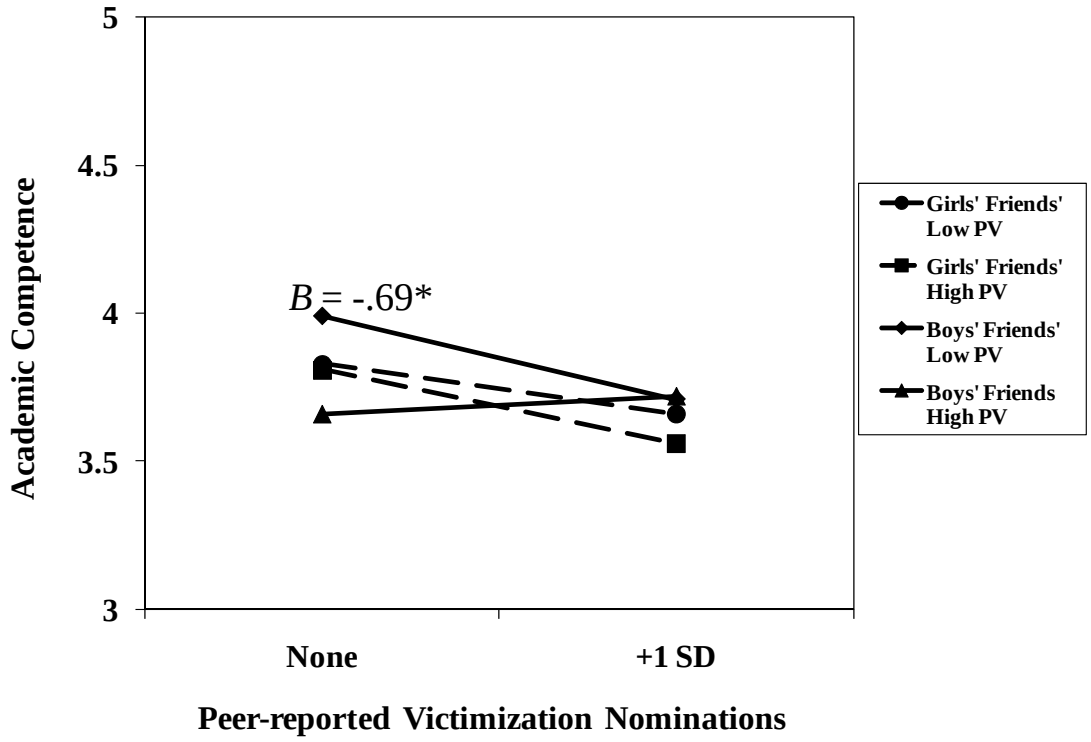


Figure 4. *Friends' prosocial behavior as moderator between self-reported victimization and loneliness at school.*

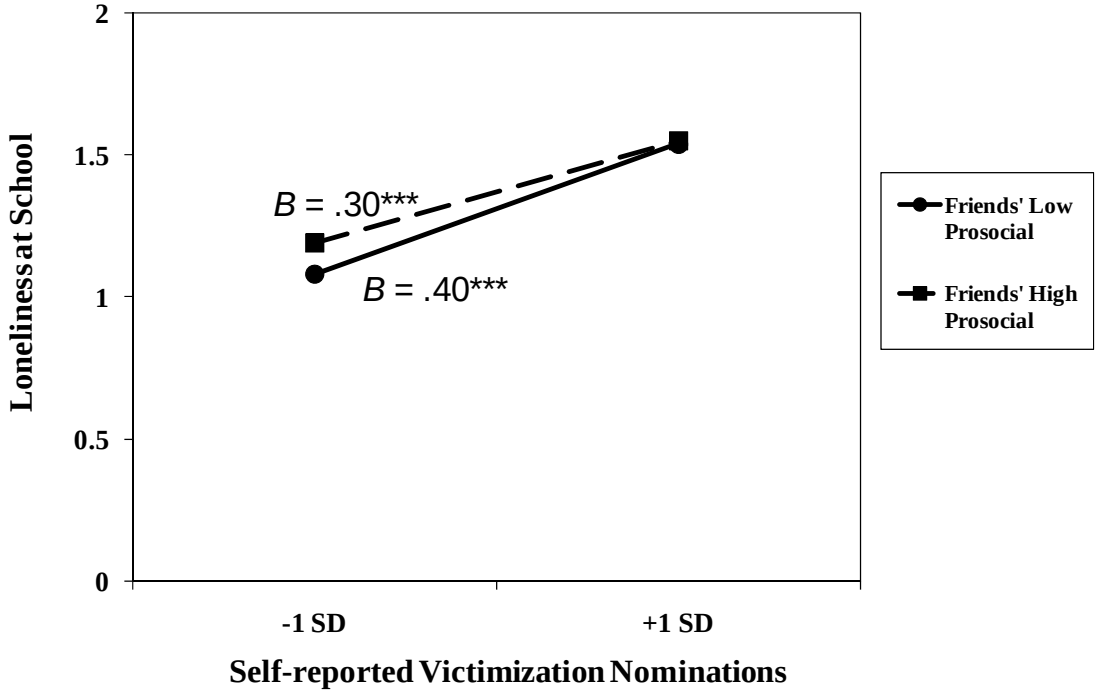


Figure 5. *Friends' social anxiety as moderator between self-reported victimization and loneliness at school.*

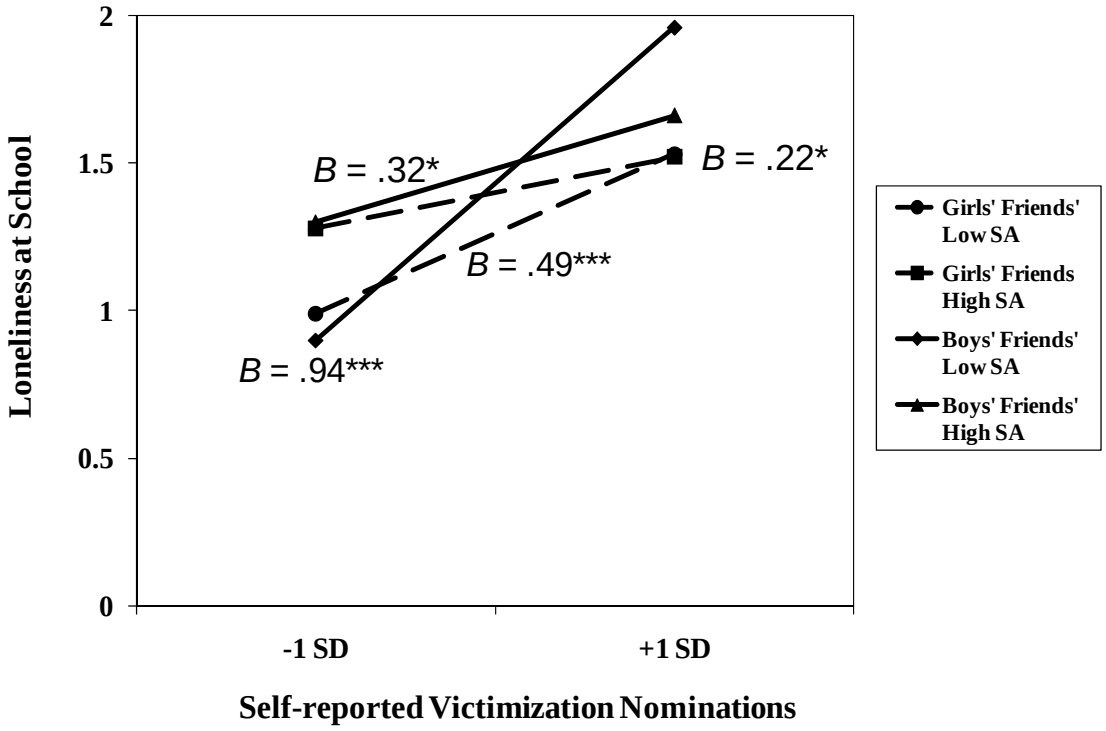


Figure 6. *Peer-reported victimization as moderator between friends' prosocial behaviors and early adolescents' academic competence.*

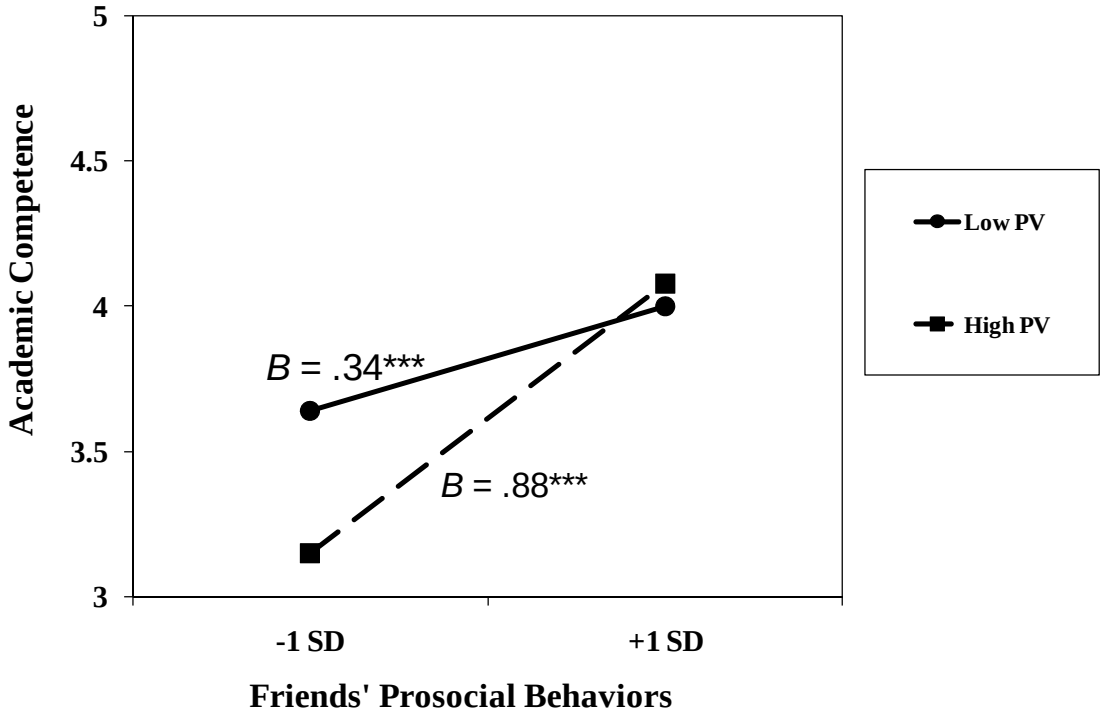


Figure 7. *Peer-reported victimization as moderator between friends' social anxiety and early adolescents' academic competence.*

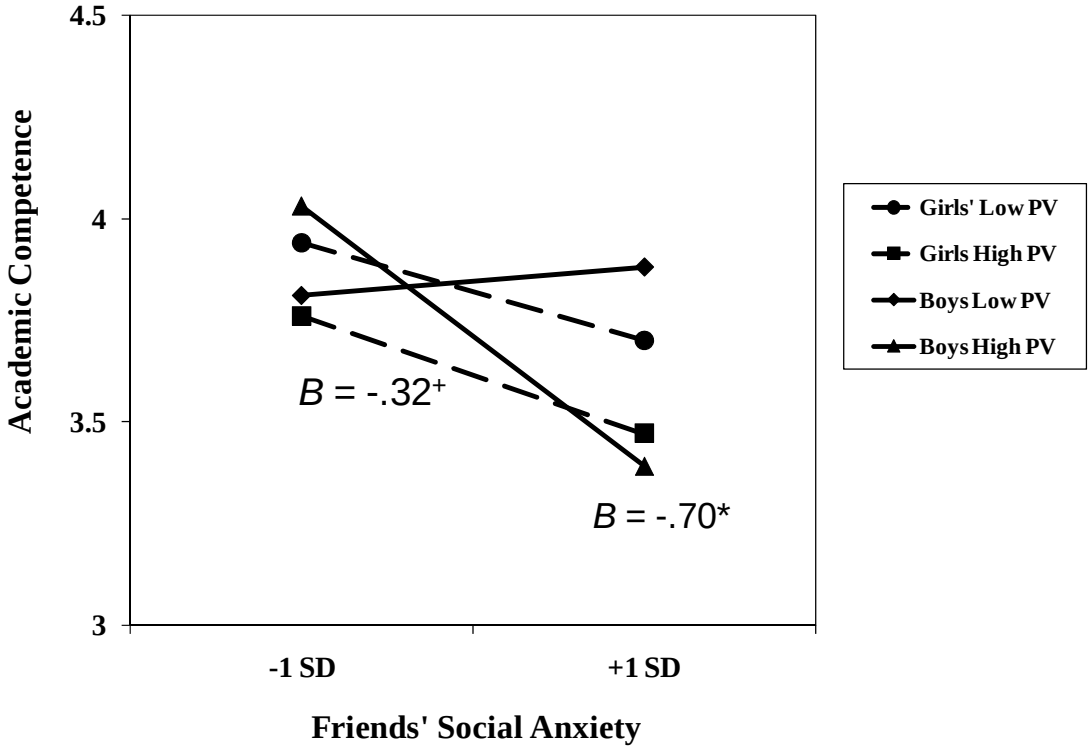


Figure 8. *Peer-reported victimization as moderator between friends' peer-reported victimization and early adolescents' academic competence.*