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## The associations among relational victimization, social support, depression, and academic achievement in early adolescence

Sonia Nowakowska Cooper

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## ABSTRACT

### THE ASSOCIATIONS AMONG RELATIONAL VICTIMIZATION, SOCIAL SUPPORT, DEPRESSION, AND ACADEMIC ACHIEVEMENT IN EARLY ADOLESCENCE

Sonia Nowakowska Cooper, Ph.D.  
Department of Psychology  
Northern Illinois University, 2016  
Christine Malecki, Director

The current study examined the associations among peer victimization, psychological distress, social support, and academic achievement outcomes in a middle school sample. Specifically, the current study investigated how social support and depression influence the association between relational aggression and academic achievement. These findings aimed to address a significant gap in our understanding of how peer victimization interferes with students' academic achievement. Analyses were conducted utilizing a total sample of 471 middle school students that were part of an all-school evaluation that occurred in May, 2014. Results indicated that depression and social support mediated the association between relational victimization and academic achievement. In sum, this study supports previous research and theory in the roles of depression and social support, but also included some unexpected patterns and new information regarding how depression and social support, together, impact the association of relational victimization and academic achievement. Limitations, implications, and future directions are discussed.

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THE ASSOCIATIONS AMONG RELATIONAL VICTIMIZATION, SOCIAL  
SUPPORT, DEPRESSION, AND ACADEMIC ACHIEVEMENT  
IN EARLY ADOLESCENCE

BY

SONIA NOWAKOWSKA COOPER  
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A DISSERTATION SUBMITTED TO THE GRADUATE SCHOOL  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE  
DOCTOR OF PHILOSOPHY

DEPARTMENT OF PSYCHOLOGY

Doctoral Director:

Christine Malecki

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	v
LIST OF FIGURES .....	vii
Chapter	
1. INTRODUCTION.....	1
2. REVIEW OF THE LITERATURE.....	4
Factors Associated with Academic Achievement.....	4
Depression as a Precursor to Academic Achievement.....	5
Social Support as a Precursor to Academic Achievement.....	7
Classmate Social Support .....	9
Teacher Social Support .....	10
Parent Social Support .....	11
Factors Associated with Relational Victimization.....	11
Engaging in Relational Aggression and Associated Academic Outcomes.	12
Victims of Relational Aggression and Associated Academic Outcomes...	14
Peer Victimization and Associated Psychological Difficulties.....	17
Peer Victimization and the Impact on Students' Perceived Social Support.....	20

	Page
Psychological Distress, Peer Victimization, and Poor Academic Adjustment.....	22
Social Support, Peer Victimization, and Poor Academic Adjustment.....	23
Current Study.....	25
Research Questions and Predictions.....	27
Question 1.....	27
Question 2.....	28
3. METHODOLOGY.....	32
Participants.....	32
Measures.....	34
Children’s Social Experience Questionnaire (CSEQ).....	34
Child and Adolescent Social Support Scale (CASSS).....	36
Behavior Assessment Scale for Children (BASC).....	37
Illinois Standards Achievement Test (ISAT).....	38
Grade Point Average Conversion.....	40
Statistical Analyses.....	40
Data Cleaning Procedures.....	40
Total Score Conversion.....	45
Significant Differences Between the Final Sample and Deleted Cases .....	46
Research Questions and Proposed Analysis Plan.....	47
Research Question 1.....	47

	Page
Research Question 2.....	50
4. RESULTS.....	53
Preliminary Results .....	54
Main Analyses.....	63
Associations between Depression, Relational Victimization, and Academic Achievement.....	63
Associations between Social Support, Relational Victimization, and Academic Achievement.....	67
Exploratory Analyses: Associations between Social Support, Depression, Relational Victimization, and Academic Achievement.....	80
5. DISCUSSION.....	90
Relational Victimization and Depression to Academic Achievement.....	91
Relational Victimization and Social Support to Academic Achievement.....	94
Relational Victimization, Depression, and Social Support to Academic Achievement.....	98
General Summary and Implications.....	100
Limitations and Future Directions.....	104
REFERENCES.....	106
APPENDIX: STUDENT DAY ONE QUESTIONNAIRE PACKET .....	113

## LIST OF TABLES

Table	Page
1. 2013-2014 Academic School Year Demographics.....	33
2. Number of Deleted Cases Due to Invalid Responses.....	41
3. Descriptives of Missing Data after Deletion of Invalid and Missing Cases.....	43
4. Descriptives for Total Sample and by Gender.....	45
5. Descriptive Statistics for Main Variables.....	54
6. Descriptive Statistics for Main Variables by Gender.....	55
7. Descriptive Statistics for Main Variables by Grade.....	56
8. Correlations by Main Variables for Total Sample.....	58
9. Correlations by Main Variables by Gender.....	60
10. Correlations by Main Variables by Grade.....	62
11. Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (ISAT) through Depression for Males and Females.....	64
12. Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (GPA) through Depression for Males and Females.....	66
13. Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (GPA) through Parent Social Support for Males and Females.....	69

	Page
14. Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (ISAT) through Parent Social Support for Males and Females.....	71
15. Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (GPA) through Teacher Social Support for Males and Females.....	73
16. Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (ISAT) through Teacher Social Support for Males and Females.....	75
17. Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (GPA) through Classmate Social Support for Males and Females.....	78
18. Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (ISAT) through Classmate Social Support for Males and Females.....	80
19. Serial Multiple Mediation Analyses for Social Support from Parents and Depression as Proposed Mediators of Relational Victimization on Academic Achievement (GPA) among Females.....	84
20. Serial Multiple Mediation Analyses for Depression and Social Support from Parents as Proposed Mediators of Relational Victimization on Academic Achievement (GPA) among Females.....	86
21. Serial Multiple Mediation Analyses for Social Support from Teachers and Depression as Proposed Mediators of Relational Victimization on Academic Achievement (GPA) among Females .....	87
22. Serial Multiple Mediation Analyses for Depression and Social Support from Teachers as Proposed Mediators of Relational Victimization on Academic Achievement (GPA) among Females.....	89



## LIST OF FIGURES

Figure	Page
1. A moderated mediation model with relational victimization as the focal predictor, depression as a mediator of relational victimization’s effect on academic achievement, and gender moderating the indirect effect of depression on relational victimization and academic achievement.....	49
2. A moderated moderation model with relational victimization as the focal predictor, depression as a moderator of relational victimization’s effect on academic achievement, and gender as the secondary moderator that moderates the effect of depression on relational victimization and academic achievement....	50
3. A moderated moderation model with relational victimization as the focal predictor, social support as a moderator of relational victimization’s effect on academic achievement, and gender as the secondary moderator that moderates the effect of social support on relational victimization and academic achievement.....	52
4. A moderated mediation model with relational victimization as the focal predictor, social support as a mediator of relational victimization’s effect on academic achievement, and gender moderating the indirect effect of social support on relational victimization and academic achievement.....	53
5. Relational victimization differences in the association between classmate social support and GPA among males. Classmate social support has a mean of 0 and a standard deviation of 1.16. Low and high represent 1 SD below and above the mean. All regressions were significantly different from zero, $p < .05$ .....	76
6. A parallel multiple mediator model where relational victimization is associated with academic achievement (GPA) directly, as well as indirectly through social support and depression.....	82
7. Serial multiple mediation model with parent social support and depression, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.....	83

8. Serial multiple mediation model with depression and parent social support, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.....	85
9. Serial multiple mediation model with teacher social support and depression, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.....	87
10. Serial multiple mediation model with depression and teacher social support, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.....	89
11. Serial multiple mediation model with parent social support and depression, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.....	92
12. Serial multiple mediation model with depression and parent social support, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.....	94
13. Serial multiple mediation model with teacher social support and depression, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.....	96
14. Serial multiple mediation model with depression and teacher social support, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.....	98
15. A summary of significance testing when examining the role of depression in the association between relational victimization and academic achievement.....	101
16. A summary of significance testing when examining the role of social support in the association between relational victimization and academic achievement.....	102

## CHAPTER 1

### INTRODUCTION

Educators support student success in many domains including academics as well as the physical, emotional, intellectual, and social growth of students. To promote student success, educators must understand what factors influence student success. Among the many factors that promote student growth, such as effective teaching and instructional practices, there are also factors that inhibit student success. Students experiencing aggression in schools is one example of a factor that has been shown to negatively impact student growth (Card, Stucky, Sawalani, & Little, 2008; Hoover, Oliver, & Hazler, 1992; Juvonen, Wang, & Espinoza, 2010; Pellegrini, 2002). Unfortunately, schools are a common place for aggression to occur (Pellegrini, 2002), and for some students, aggression poses a serious impediment to their individual development and academic success (Crick & Grotpeter, 1995; Crick, Ostrov, & Werner, 2006; Juvonen, Nishina, & Graham, 2000; Juvonen, Wang, & Espinoza, 2010).

Victimization experiences among students are prevalent. Many students have indicated they have been bullied at some point during their school career. Specifically, 49% of U.S. students in fourth through twelfth grade experienced aggression within the past month (Bradshaw, Sawyer, & O-Brennan, 2007). Victimization may be more prevalent in late elementary and middle school, as one study found that students felt more victimized during this period than early elementary and high school (Pellegrini, 2002). Many environmental factors, such as the digital

age and changes within the school setting, influence opportunities for aggression and victimization.

The cultural environment and changes from elementary to middle school are some contributing factors to the increase of victimization experiences among adolescents. Rapid advances in technology have led to profound shifts in how adolescents live and communicate; this digital age provides students with access to many social opportunities (cell phones, emails, social networking websites) and provides them with many platforms to be bullies and become targets of aggression. In addition to these social platforms influencing aggression, adolescents also experience changes in school structure. As adolescents transition from elementary school to middle school, frequent changes of teachers and classmates provide a more impersonal environment. Familiarity and closeness contribute to aggression, thus students transitioning between classes with different classmates could account for increases of aggression (Pellegrini, 2002). Additionally, middle school is more competitive than elementary school, which could be associated with the increases in relational aggression. With the prevalence of aggression increasing among adolescents, research on aggression has also expanded within the recent decades.

Recent research on aggression has studied definitions of and the nature of aggression, the negative ramifications associated with aggression, and effective strategies to prevent or reduce aggression. Bullying refers to the covert and overt behaviors that intend to hurt another person, emotionally or physically (Olweus, 1993). Bullying is also an umbrella term that includes different forms of behaviors (i.e., verbal, relational, social, and physical). Although recent

literature predominantly examines global bullying and global victimization, it is imperative to understand how the different types of this aggression may be associated with different outcomes.

For example, one type of this aggression is relational aggression. Relational aggression is the intentional behavior that damages friendships or restricts involvement in a social group (Grotzinger & Crick, 1996). These behaviors can be manipulative and subtle with the intent to emotionally hurt the recipient. Examples of these intentional behaviors are gossiping, excluding a peer from a group, or ignoring a peer. The experience of being relationally victimized is associated with deleterious psychological effects, including depression, anxiety, and low self-esteem (Desjardins & Leadbeater, 2011; Juvonen et al., 2000; Rueger & Jenkins, 2014), and academic effects (Schwartz, Gorman, Nakamoto, & Toblin, 2005; Risser, 2013; Liu, Bollock, & Coplan, 2014). Although there has been an increase in victimization literature, less is known about relational aggression/relational victimization.

The purpose of this study was to examine factors associated with both academic achievement and relational aggression. As previously mentioned, less is known about how more specific types of aggression, such as relational aggression, are associated with academic achievement and how the associated outcomes of relational aggression may impact student growth. The current study investigated a hypothesis that relational victimization operates as a stressor on students and that interferes with their ability to cope with or engage in the demands of school. This study examined the associations among constructs that may play a role in students' academic achievement.

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### Factors Associated with Academic Achievement

Although there are many factors associated with academic achievement and relational victimization, less is known about the overlapping factors that are associated with both academic achievement and relational victimization. Two factors in particular, depression and social support, are associated with both academic achievement and relational victimization (Juvonen, Nishina, & Graham, 2000; Rothson, Head, Klineberg, & Stansfeld, 2011; Rueger and Jenkins, 2013; Schwartz, Gorman, Nakamoto, & Toblin, 2005; Wang, Iannotti, & Luk, 2011). Both of these factors are important to examine as links between relational victimization and academic achievement, but also as factors that work together; a student is the center of many levels of contexts (e.g., community, schools, family, and friends) that interact to influence development over time (Bronfenbrenner, 1979). Both of these factors (depression and social support) are complex: students sharing similar experiences may not end up with the same outcome. In other words, the relationships that students have within their environment are viewed as mutually shaping and these factors interact. There is a large body of research on how mental health affects school performance and how factors such as social support may serve as protective factors to academic performance; this literature base will be reviewed in subsequent sections.

### Depression as a Precursor to Poor Academic Achievement

Emotional difficulties such as depressive symptoms in students can result in poor academic achievement. Multiple studies have investigated this link between depression and academic achievement: students who reported higher levels of depression had lower academic achievement (Al-Qaisy, 2011; Aluja & Blanch, 2002; Aluja & Blanch, 2004; Försterling, & Binsler, 2002; Glew, Fan, Katon, Rivara, & Kernic, 2005; Lucier-Greer et al., 2014; Roeser, Eccles, Strobel, 1998; Yousefi, et al., 2010). These findings were found across elementary school-aged students, adolescents, and college-aged students. Grimm (2007) examined the developmental associations between depression and academic achievement among children and adolescents and found that symptoms of depression were negatively related to academic achievement among students between the ages of 8 and 14. The association between depression and academic achievement was also found across ethnicities. For example, a study that examined Latino adolescents found that both student grade point average (GPA) and standardized test scores were significantly and negatively correlated with students' depressive symptoms (Zychinski & Polo, 2012). Taken together, these findings suggest that an important connection exists between academic achievement and depression among students.

Studies have also investigated the mitigating factors between depressive symptoms and academic achievement. Humanksy et al. (2010) found that adolescents' depressive symptoms were not related to GPAs. In fact, adolescents with greater depressive symptoms reported that their depressive symptoms affected their ability to do well in school, concentrate or complete

homework, concentrate in class, attend class, and interact with classmates, but their depressive symptoms did not impact their GPA. Roeser, Eccles, and Strobel (1998) also investigated emotional distress and the associated maladaptive behaviors in the classroom and found that depressive symptoms were most strongly associated with classroom resistance (e.g., failing to complete assignments, missing class). Thus, although the association between depression and academic achievement may be more complex than a direct association; depression may be associated with academic achievement indirectly through intermediate factors.

There are different hypotheses that describe this complex co-occurrence of emotional and academic difficulties among children; one such hypothesis is the *emotional difficulties hypothesis* (Roeser et al., 1998). The emotional difficulties hypothesis states that negative emotions (e.g., anxiety, depression) drain off attentional and motivational resources by diverting students' attention to task-irrelevant factors (e.g., personal attributes, environmental stimuli) during learning, thus diminishing the quality of learning and achievement. These findings could explain that depression does not necessarily lead to poor academic achievement directly. Rather, the academic difficulties could stem from the difficulty concentrating in class and completing homework. Mood is related to motivation, concentration, and energy levels; it could be that the feelings of depression impact students' ability to study and perform and do not directly impact academic achievement. In all, emotional difficulties such as depressive symptoms in children and adolescents often occur in tandem with poor academic achievement; however, this association may not be a direct and causal relationship.



### Social Support as a Precursor to Academic Achievement

Protective factors from adverse outcomes have been previously examined among children and adolescents. Social support is one such factor associated with positive adjustments in children and adolescents. Social support refers to the perception of having support available and has been found to buffer against adverse life effects (Demaray & Malecki, 2003). Social support can be received from one's social network; students' social network includes parents, teachers, classmates, close friends, and people in their school. There are multiple types of support (e.g., emotional, appraisal, instrumental, and informational; Tardy, 1985) that can be given or received. However, research primarily examines the perception of availability of support from others. Social support is associated with many positive outcomes; students' perceptions of social support is associated with better academic adjustment and psychological adjustment (Demaray & Malecki, 2002; Rothon, Head, Klineberg, & Stansfeld, 2011; Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2014).

Adolescents' perceptions of social support and the associated academic outcomes have been examined. The findings suggest a positive association between social support and academic motivation (Song, Bong, Lee, & Kim, 2014), academic adjustment (Rueger, Malecki, & Demaray, 2010; Song et al., 2014), and academic performance (Demaray & Malecki, 2002; Song et al., 2014). Studies also examined which specific, perceived sources of support were significant and unique predictors of academic adjustment. Although social support from all sources appear to be beneficial, consistent findings suggest that parental support has the strongest associations with academic outcomes of sources of support (Demaray & Malecki, 2002; Rueger

et al., 2010; Song et al., 2014). Studies also found significant gender differences with two studies finding that girls perceived significantly more support than boys (Rueger et al., 2010; Rueger, Malecki, & Demaray, 2010) and one study found that boys perceived significantly more support than girls (Song et al., 2014). It could be that the latter study was influenced by sociocultural factors unique to their Korean sample, although the researchers did not mention possible sociocultural factors influencing gender differences (Song et al., 2014). Also, only one of these aforementioned studies found an interaction effect: social support predicted more outcomes for girls than for boys (Rueger et al., 2010). Although only one study found an interaction, further research is needed to understand how gender impacts the association of social support and academic outcomes. All things considered, research is limited to middle-school students, thus it is unclear how social support is associated with elementary-aged and high-school-aged students. Overall, these findings suggest a positive association between social support and academic outcomes among middle-school-aged students.

People seek social support from different sources for specific reasons. Adolescents interact with a range of social agents at home and at school. Although adolescents may have multiple sources of support, classmates, teachers, and parents are important figures among adolescents and serve as common sources of support among most adolescents. However, the influence of classmates, teachers, and parents in terms of social support they provide differs and the consequences of these different sources of social support differ.

## Classmate Social Support

Students spend significant time with their classmates, thus classmate social supports are easily accessible. During the middle school years, students begin to seek social support outside of family (Song, Bong, Lee, & Kim, 2015). Classmate social support is positively associated with academic achievement (Ahmed, Minnart, Van Der Werf, & Kuyper, 2010; Wang, Iannotti, & Luk, 2011). This link has been found across cultures (Ahmed, Minnart, Van Der Werf, & Kuyper, 2010; Song et al., 2014; Wang, Iannotti, & Luk, 2011). Researchers have found that the direct association between classmate support and academic achievement is significant, yet small. For example, Malecki and Demaray (2006) investigated the relationship between social support and grade point average (GPA) in middle school students living in poverty and found a small, significant relationship between classmate social support and Reading GPA among students with lower SES. Another study found classmate social support, among middle school students, was associated with GPA for girls but not for boys (Rueger, Malecki, & Demaray, 2010). Consequently, the indirect effects of classmate social support on academic achievement have also been investigated. One study found that adolescents reporting higher levels of perceived classmate support also reported stronger mastery goals, lower testing anxiety, and performed higher academically (Song et al., 2014). Another study found that students who received social support from peers were more academically motivated and performed higher academically (Wentzel, 1999). In all, these findings across diverse samples suggest that social support from classmates is important for adolescents regardless of their socioeconomic status or ethnicity.

## Teacher Social Support

Students also spend significant time with their teachers, thus teacher social supports are also easily accessible. Research suggests that social support from teachers is positively associated with academic achievement (Ahmed, Minnart, Van Der Werf, & Kuyper, 2010; Malecki & Demaray, 2006; Malecki & Elliott, 1999; Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015). This link has been found across cultures (Ahmed, Minnart, Van Der Werf, & Kuyper, 2010; Song et al., 2014). Researchers have found that the direct association between teacher support and academic achievement is significant, however the strength of this association differs. For example, Malecki and Elliott (1999) found a small but significant relationship between students' perceived teacher support and their overall GPA. However, Malecki and Demaray (2006) found a moderate relationship between teacher social support and Total GPA, Reading GPA, Language GPA, and Science GPA among students with lower SES. It could be that these two studies differed in population or that Malecki and Elliott (1999) measured overall GPA, whereas Malecki and Demaray (2006) measured overall GPA but also GPA in specific subjects. The association between teacher social support and academic achievement has also been found to differ between genders. For example, Rueger, Malecki, and Demaray (2010) found that teacher social support among middle school students was associated with GPA for girls, but not for boys. In all, these findings across diverse samples suggest that social support from teachers is important for adolescents regardless of their socioeconomic status or ethnicity.

### Parent Social Support

Although adolescents begin to seek less social support from their parents and more social support outside of their family, parent support continues to contribute significantly to academic achievement (Ahmed, Minnart, Van Der Werf, & Kuyper, 2010; Malecki & Demaray, 2002; Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015; Song, Bong, Lee, & Kim, 2015). Social support from parents has been found to have the greatest influence on academic achievement above social support from other sources (Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015). This association has been found in both males and females (Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015). Additionally, this association has been found across diverse samples. For example, Malecki and Demaray (2006) investigated the relationship between social support and grade point average (GPA) in middle school students living in poverty and found a moderate relationship between teacher social support and Total GPA, Reading GPA, Language GPA, and Social Studies GPA among students with lower SES. These findings suggest that social support from parents is important for adolescents regardless of their socioeconomic status or ethnicity.

### Factors Associated with Relational Victimization

As previously mentioned, there are many overlapping factors that are associated with both academic achievement and relational aggression. Depression and social support were found to be associated with academic achievement, however, all three of these constructs have also been found to be associated with aggression. Overall, the research suggests an association

between victimization and negative outcomes. However, the specific associated outcomes of relational aggression are limited. The following literature review examines more broad constructs in addition to relational aggression. As previously mentioned, the broader constructs (i.e., aggression and victimization) do include relationally aggressive behaviors.

### Engaging in Relational Aggression and Poor Academic Outcomes

Researchers examined student involvement in relational aggression and the associated academic outcomes. Relational aggression has been shown to be associated with poorer academic performance (Preddy & Fite, 2012; Risser, 2013). This appears to be a problem across all grade levels when examining the correlations between engaging in relational aggression and academic performance (Feldman et al., 2014; Preddy & Fite, 2012; Risser, 2013). For example, Risser (2013) found that relational aggression among elementary school-aged students was associated with poorer academic performance. Preddy and Fite (2012) also found relational aggression in middle-school-aged students was negatively associated with academic performance; specifically, high levels of relational aggression were associated with lower ratings of academic performance. Feldman et al. (2014) also found greater involvement in aggression behaviors among middle-school-aged students associated with lower GPAs. Additionally, Feldman et al. (2014) examined these students through high school—over the course of five years—and found that not only was engaging in aggression concurrently associated with lower GPAs, but also longitudinally. Overall, there are consistent associations between perpetrating in relational aggression and academic performance.

However, there are exceptions to the associated academic outcomes when engaging in relationally aggressive behaviors. Feldman et al. (2014) suggested that engaging in relationally aggressive behaviors and the associated academic performance is not as simple as previously mentioned; Feldman et al. (2014) found student engagement in aggressive behaviors in middle school was negatively related to school attendance and academic performance. However, the longitudinal findings suggested that student engagement in aggressive behaviors in middle school predicted lower GPAs in high school in girls, but this association was not found in boys, suggesting possible gender differences in the association of engagement in aggressive behaviors and academic performance.

Although Feldman et al. (2014) examined a broader construct, there is also evidence of gender differences when examining specifically just relational aggression. For example, Risser (2013) found relational aggression was associated with school performance; however, separate gender regressions suggested that engaging in relational aggression was negatively associated with poorer school performance for girls, but not for boys. On the other hand, Preddy and Fite (2012) did not find any significant gender differences when examining relational aggression and academic performance in elementary-aged students. Although both Risser (2013) and Preddy and Fite (2012) used different methodologies to investigate relational aggression, these associations need to be further examined to understand if there really are gender differences in the associations between engaging in relational aggression and academic performance. These discrepant findings in the literature could be due to differences in raters (i.e., caregiver- or self-report) and measures, but perhaps there could be developmental differences in how relational aggression can impact academic performance that differ by gender. Overall, the current findings

suggest that students engaging in relational aggression have poorer academic outcomes—concurrently and longitudinally—than students not engaging in relational aggression, and in some cases, this association may be stronger for girls than for boys.

### Victims of Relational Aggression and Poor Academic Outcomes

Many researchers have examined how relational victimization is associated with academic performance. The specific literature on relational victimization is limited, thus global victimization is also examined in this section. Previous findings indicate that victimization is associated with poorer academic performance (Schwartz, Gorman, Nakamoto, & Toblin, 2005; Risser, 2013; Liu, Bollock, & Coplan, 2014). For example, Schwartz et al. (2005) found frequent peer relational victimization in third- and fourth-grade students associated with poor concurrent academic outcomes. Students who were relationally victimized by peers had lower GPAs and performed lower on standardized achievement tests than their peers who were not relationally victimized. Additionally, fourth- and fifth-grade victimized students also had poorer academic performance (Risser, 2013). This association between victimization and academic performance was also found across cultures: Liu, Bullock, and Coplan (2014) examined peer victimization and academic achievement in third-grade Chinese students and found that victimized students had significantly lower grades than their non-victimized peers. Overall, there are consistent associations between victimization and academic performance in elementary-aged students.



The association between victimization and academic performance appears to also be problematic across grade levels. As previously mentioned, relational aggression occurs in elementary-school-aged students, yet one study found that students felt at most risk for victimization between the ages of 10 and 14 (i.e., middle-school-aged students; Hoover, Oliver, & Hazler, 1992). Although the associations between victimization and academic performance have not examined a developmental change, victimization in middle-school-aged students is also consistently associated with lower academic performance (Juvonen, Nishina, & Graham, 2000; Juvonen, Wang, & Espinoza, 2011; Rothson, Head, Klineberg, & Stansfeld, 2011; Wang, Iannotti, & Luk, 2011). One study found a one-point higher mean on self-perceived victimization score predicted an average of 1.5 letter grade decrease in one academic subject across three years in middle school, suggesting that higher perceived victimization is associated with lower GPA (Juvonen et al., 2011). These findings suggest that victimization is associated with poor academic performance, even across diverse samples (Juvonen et al., 2011) and raters (i.e. self-, parent-, teacher-, or caregiver-report of victimization).

Although many studies examined the concurrent associations between victimization and academic performance, some studies examined the longitudinal associations between victimization and academic performance as well. Two studies found frequent peer victimization in elementary-aged-students associated with poor academic performance one and two years later (Schwartz, Gorman, Nakamoto, & Toblin, 2005; Liu, Bullock, & Coplan, 2014). Two studies also found frequent peer victimization in middle school students was associated with poor academic performance longitudinally (Juvonen, Wang, & Espinoza, 2010; Rueger & Jenkins, 2013). However, some studies found perceived victimization was not significantly related to

academic achievement one year later. Similarly, Feldman et al. (2014) found perceived victimization in middle school was unrelated to GPA concurrently and over a five-year period. These associations should be further examined to understand the longitudinal effects of victimization on academic performance. Perhaps there are inconsistent associations between relational aggression and academic performance because only direct linkages have been examined. For example, Juvonen, Nishina, and Graham (2000) found that perceived victimization in middle-school-aged students did not predict school outcomes one year later, however students' perceived aggression was significantly related to poor psychological adjustment and in turn was negatively associated with academic outcomes (GPA). Overall, the results suggest that victimized students perform lower academically—concurrently and longitudinally—than students who are not victimized.

Researchers examined the associations between victimization and academic performance more specifically between different subgroups. Generally, studies found inconsistent patterns of gender differences across variables; associations between victimization and academic performance did not differ across genders (Juvonen, Nishina, & Graham, 2000; Juvonen, Wang, & Espinoza, 2010; Liu, Bullock, & Coplan, 2014; Risser, 2013; Schwartz, Gorman, Nakamoto, & Toblin, 2005). A meta-analytic review of 33 studies also found the correlation between peer victimization and academic achievement did not differ across genders and the estimated effect sizes were similar for boys and girls (Nakamoto & Schwartz, 2009). However, one study did find gender differences. Rueger and Jenkins (2013) found that girls experienced higher levels of academic maladjustment concurrent with peer victimization than boys did, however, more intricate multivariate models suggested that there are no gender differences when examining the

indirect effect of psychological adjustment on the association between victimization and academic adjustment. Overall, the current research does not suggest gender differences among the association between victimization and academic performance.

### Peer Victimization and Associated Psychological Difficulties

The associated emotional outcomes in both students that were victims of relational aggression and students that engaged in relational aggression have also been examined. As previously mentioned, research is limited in the specific construct of relational aggression, thus global victimization was also used to examine the associations between victimization and emotional outcomes.

Research on the emotional difficulties associated with victimization suggest that victimization is associated with emotional difficulties across all grade levels (Desjardins & Leadbeater, 2011; Hanish & Guerra, 2002; Juvonen, Nishina, & Graham, 2000; Reijntjes, Kamphuis, Prinzie, Telch, 2010; Rueger & Jenkins, 2014; Schwartz, Gorman, Nakamoto, & Toblin, 2005). For example, self-reported and peer nominations of victimization in elementary-aged students were associated with higher levels of depression and anxiety than students not victimized (Hanish & Guerra, 2002; Schwartz et al., 2005). Additionally, these results suggested that elementary-aged victimized students may endure lasting effects of depression as victimization was associated with depression both concurrently and one year later (Schwartz et al., 2005). Three studies found victimization in middle-school aged students was associated with higher levels of depression and lower levels of self-esteem than students not victimized

(Desjardins & Leadbeater, 2011; Juvonen et al., 2000; Rueger & Jenkins, 2014). These findings were consistent across raters: self-report, peer nominations, and teacher-report of victimization. Furthermore, studies found victimization is associated with higher levels of internalizing problems (i.e., feelings of depression, loneliness, low self-worth, anxiety) concurrently and longitudinally, suggesting that victimization was associated with concurrent and future psychological difficulties (Juvonen et al., 2000; Reijntjes, Kamphuis, Prinzie, Telch, 2010). These findings indicate that elementary- through middle-school students who are victimized may be at risk for serious psychological difficulties with potentially long-lasting effects.

When researchers examined victimization and the associated psychological difficulties between different subgroups, there appeared to be an exception to the associations between victimization and psychological adjustment. Two studies did not find differences between genders when examining how victimization is associated with psychological adjustment; however, Hanish and Guerra (2002) found both boys and girls experience similar outcomes following victimization, but boys experienced slightly higher rates of anxious and depressive symptoms after subsequent victimization. On the contrary, Rueger and Jenkins (2014) found girls experienced higher levels of anxiety and depression and lower levels of self-esteem following victimization than boys experienced. These associations need to be further examined to understand if there are gender differences in the associations between victimization and psychological adjustment. One possible explanation could be that the differences between Hanish and Guerra (2002) and Rueger and Jenkins (2014) were due to developmental differences as Hanish and Guerra (2002) examined elementary-aged students and Rueger and Jenkins (2014) examined middle-school-aged students. Overall, the findings suggest that students who are

victimized by peers experience more psychological difficulties than students not victimized by peers.

Researchers examined student engagement in relational aggression and the associated psychological difficulties. Correlations between relational victimization and psychological difficulties suggest that engaging in relational aggression is associated with psychological difficulties across elementary-school-aged and middle-school-aged students (Crick & Grotpeter, 1995; Crick, Ostrov, & Werner, 2006; Spieker et al., 2011; Preddy & Fite, 2012); however, there are inconsistent results on the specific associated psychological difficulties. For example, one study found that among elementary-aged students, relational aggression was not associated with feelings of withdrawal, anxiety, and depression concurrently; however, relational aggression was associated with more somatic complaints concurrently than non-relationally aggressive children (Crick, Ostrov, & Werner, 2006). Another study found engagement in relational aggression was not associated with internalizing symptoms (i.e., anxiety and withdrawal symptoms) among elementary-aged students; however, engaging in relational aggression was associated with higher levels of depression in girls, but not in boys (Spieker et al., 2011). On the contrary, three studies found engagement in relational aggression was associated with higher levels of depression among elementary- and middle-school-aged students (Crick & Grotpeter, 1995; Preddy & Fite, 2012; Taylor, Sullivan, & Kliwer, 2013). Additionally, Taylor, Sullivan, and Kliwer (2013) found Urban African American elementary- and middle-school-aged students who engaged in relational aggression reported more negative self-evaluations and higher levels of anxiety concurrently and two years later. These associations should be further examined to clarify the associations between engaging in relational aggression and psychological difficulties. One possible hypothesis explaining the differences between studies is due to the developmental

differences: there were significant associations with internalizing symptoms among middle-school-aged students but not among elementary-aged students. Perhaps anxious and depressive symptoms become more prominent as children age into adolescence; this could explain why the longitudinal studies found students engaging in relationally aggressive behaviors experienced enduring depressive and anxious symptoms. Overall, the findings suggest that students experienced more psychological difficulties when they engaged in relational aggression than students who did not engage in relational aggression, although there are inconsistent findings in what psychological difficulties these students experience. Of these psychological difficulties, depressive symptoms consistently appear throughout literature.

#### Peer Victimization and the Impact on Students' Perceived Social Support

Despite evidence of social support being associated with positive adjustment among students, only a few studies examined how students' perceptions of social support were associated with aggression. These studies found that students not involved in aggression perceived the most amount of social support, whereas students that were both victims and bullies perceived the least amount of social support (Conners-Burrow, Johnson, Whiteside-Mansell, McKelvey, & Gargus, 2009; Demaray & Malecki, 2003; Holt & Espelage, 2007). Additionally, two studies found that bullies' perceptions of peer/classmate social support did not significantly differ from students who were not involved in aggression nor were victims of aggression (Demaray & Malecki, 2003; Holt & Espelage, 2007). This is concerning for two reasons. One study found victims and bully/victims rated social support as more important relative to bully

and comparison groups; thus, students at greatest risk for negative outcomes value social support more than their peers, yet report less of it (Demaray & Malecki, 2003). Also, these findings may suggest that peers have a tolerance for aggressive behavior and supporting aggressive behavior could maintain aggressive behavior. Further research could examine social support, aggression, and student perceptions of school climate. Several hypotheses could be that students feel like they are not bullied, there is a zero-tolerance for aggressive behavior, or it could be that students feel like they are bullied but are scared to stand up to the bully. Possible gender differences have also been examined and one study found that females reported more peer social support than males across all four aggressive group comparisons (i.e., uninvolved, bullies, victims, bully/victims), however, only peer and maternal social support were examined (Holt & Espelage, 2007). Potential gender differences in perceived support across the four different bully comparison groups should be further examined. Overall, these studies found significant differences in perceptions of support between bully groups; students not involved in aggressive behaviors perceived the highest amount of social support, students that were both aggressors and victims perceived the least amount of social support, and students who valued and may need social support the most were not receiving it.

#### Psychological Distress, Peer Victimization, and Poor Academic Adjustment

Although there is evidence that peer victimization is associated with poor academic adjustment, researchers examined how psychological distress impacts the association between peer victimization and school adjustment. Victimization by peers was associated with poor school adjustment (e.g., GPA, achievement test scores, school engagement, school disaffection) through the mediating influence of internalizing difficulties (e.g., depression and anxiety) (Espinoza, Gonzales, & Fuligini, 2013; Galand & Hospel, 2013; Holt, Finkelhor, & Kantor, 2007; Juvonen, Nishina, & Graham, 2000; Rueger & Jenkins, 2014; Schwartz, Gorman, Nakamoto, & Toblin, 2005; Tortura, Karver, & Gesten, 2014). These findings were consistent across elementary-school-aged students, middle-school-aged students, and high-school-aged students. However, these studies examined peer victimization, academic achievement, or psychological adjustment as global constructs instead of examining specific constructs. Few studies have examined these constructs more specifically. For example, Espinoza, Gonzales, and Fuligni (2013) examined how chronic or episodic (daily-level) victimizations are associated with psychosocial and school adjustment. Findings suggested that depression distress mediates the association between victimization (chronic and episodic victimization) and academic problems. Although, it is unclear how more specific constructs (i.e., relational victimization, depression, and GPA) are related, the more global constructs indicate that these variables could follow a similar association. These studies could provide additional support for the emotional difficulties hypothesis (Roeser et al., 1998), in that peer victimization can lead to psychological distress. In turn, the psychological distress impacts students' motivation, concentration, and energy, resulting in poor academic performance.



Additional studies have examined the associations between victimization and academic achievement using two mediating variables. Both Hoglund (2007) and Tortura et al. (2014) examined how victimization impacts academic achievement through psychological distress and student engagement. Both studies found that psychological distress, alone, did not mediate the association between victimization and academic achievement; however, these studies found that psychological distress and student engagement, together, mediated the association between victimization and academic achievement. Additionally, both studies found that this association is stronger for females than males; Hoglund (2007) found that this association was the strongest internalizing problems and relational aggression among females. These findings also support the emotional difficulties hypothesis (Roeser et al., 1998), in which students' depression can lead to academic disengagement, consequently leading to poor academic performance.

#### Social Support, Peer Victimization, and Poor Academic Adjustment

Research examined how social support buffered (or moderated) the effect of victimization on academic adjustment, supporting the stress-buffering theory. However, this research is limited as only few studies examined how social support impacted the effect of victimization on academic adjustment among adolescents. For example, one study examined adolescents' perceived friends and family support and found friends and family support moderated the effect of victimization on academic adjustment (Rothon, Head, Klineberg, & Stansfeld, 2011). However, only high levels of friend support and moderate (not high) levels of family support moderated this effect. On the other hand, Galand and Hospel (2013) examined

parental, teacher, and peer social support among adolescents in Belgium and found that social support did not moderate the effect of victimization on academic adjustment. These two studies measured academic adjustment differently resulting in different findings: one study measured academic adjustment by national tests indicating if students were performing adequately (Rothon et al., 2011), whereas another study measured academic adjustment with school disaffection (Galand & Hospel, 2013). Thus, one study may suggest that victimized adolescents perform better academically with friend and family social support, whereas the other study may suggest that victimized adolescents have higher levels of school disaffection (emotional, cognitive, and behavioral) than adolescents who are not victimized, regardless of social support. Another study had found perceived classmate support mediated the association between victimization and academic adjustment (Wang, Iannotti, & Luk, 2011), suggesting that perceived classmate support may lead to greater academic adjustment among victimized students. However, results should be interpreted with caution as this study measured academic adjustment with two subjective items that asked students of their opinion on how they liked school and how they thought their teacher felt about their performance compared to peers; thus topically measuring academic adjustment, academic achievement, and academic affection. In all, there is limited evidence that social support buffers the effects of victimization on academic achievement.

Although the aforementioned studies have little to no evidence that social support moderates the effects of victimization on academic adjustment, there are some conclusions that could be assumed. All three studies suggest victimization is associated with poor academic adjustment (Galand & Hospel, 2013; Rothon et al., 2011; Wang, Iannotti, & Luk, 2011). These studies also suggest social support is a useful resource for students (not only for relationally

victimized students) and is associated with greater academic adjustment than those that perceived less social support. Further research should investigate how social support moderates the effect of victimization on academic adjustment because the research is limited. The previously mentioned research did not assess the multiple types and sources of support; consequently, it is unclear which source of support and which type of support can act as a useful resource. Also, only one study investigated academic outcomes with a standardized assessment and as a result, it is unclear if social support buffers the effects of victimization on academic adjustment/achievement. Thus, further research should examine multiple types of support from multiple sources of support and a standardized academic achievement measure (i.e., GPA or standardized achievement assessment) among victimized students to better understand how social support could buffer the effects of victimization on academic adjustment. Taken together, the current research cannot conclude there are moderating effects of social support on academic adjustment/achievement, but do suggest that victimized adolescents have poorer academic adjustment and social support appears to have a positive association with academic adjustment.

### Current Study

The purpose of this study was to examine the associations among relational victimization and academic achievement outcomes in a diverse sample of middle school students. Given evidence presented in prior sections, it was believed that poor academic outcomes are associated with symptoms of psychological distress related to experiences of victimization. Due to the definition of relational victimization (direct and indirect non-physical, manipulative acts to

intentionally hurt others by damaging peer relationships and feelings of belonging), it is suggested that victimized students interpret these negative peer experiences as critical appraisals. Using the emotional difficulties hypothesis, this sense of powerlessness or a lack of belonging is suggested to then drain off attentional and motivational resources by diverting students' attention to task-irrelevant factors. These negative emotions can be conceptualized as feelings of depression. This model is more consistent with mediation. On the other hand, social support is also associated with peer victimization and academic achievement. Using the stress-buffering hypothesis, social support acts as a stress buffer, in which in which the belief that support is available reduces the effects of stressful events (Lakey & Cohen, 2000; Cohen & Wills, 1985). Social support as a buffer would be consistent with a moderation model. Despite these findings, no study to date has examined salient psychological and perceived social support of victimized middle school students together to assess their association with academic achievement. These findings address a significant gap in our understanding of how peer victimization may interfere with students' academic achievement.

Thus far, models that try to explain the association between relational victimization and academic achievement have examined only one moderator or one mediator. However, the theories and previous research make it difficult to determine if this is a mediating or moderating relationship. The current study examined competing models for both depression and social support as moderators or mediators of the relationship between relational victimization and academic achievement. Additionally, the current study investigated if the combination of social support and depression could explain the association between academic achievement and relational aggression. The following questions were investigated:

- (1) Do students' symptoms of depression mediate or moderate the association between relational victimization and academic achievement? Did this association differ significantly between males and females?
- (2) Do students' perceptions of social support mediate or moderate the association between relational victimization and academic achievement? Did this association differ significantly between males and females?

## Research Questions and Predictions

### Question 1

Do students' symptoms of depression mediate or moderate the association between relational victimization and academic achievement? Did this association differ significantly between males and females? Victimization in middle school students has been consistently associated with lower academic performance (Juvonen, Nishina, & Graham, 2000; Juvonen, Wang, & Espinoza, 2011; Rethon, Head, Klineberg, & Stansfeld, 2011; Wang, Iannotti, & Luk, 2011). Although these studies focused on global victimization, it was expected that relational victimization would also be associated with academic achievement. Additionally, the literature suggests that the correlation between victimization and academic achievement does not differ across genders and the estimated effect sizes were similar for boys and girls (Nakamoto & Schwartz, 2009); it was expected that the association between relational victimization and academic achievement would function similarly for males and females.

The literature also suggests that depression is associated with the relationship of victimization on academic achievement (Espinoza, Gonzales, & Fuligini, 2013; Galand & Hospel, 2013; Holt, Finkelhor, & Kantor, 2007; Juvonen, Nishina, & Graham, 2000; Rueger & Jenkins, 2014; Schwartz, Gorman, Nakamoto, & Toblin, 2005; Tortura, Karver, & Gesten, 2014). Using the emotional difficulties hypothesis, depression drains off the attentional and motivational resources, impacting the quality of achievement. Thus, it was expected that depression would be a consequence of relational victimization and that depression *mediates* the association between victimization and academic achievement. Additionally, the literature suggests that among middle school students, females experience higher levels of depression following victimization than males (Rueger & Jenkins, 2014). Additionally, past researchers found that the association of depression on victimization and academic achievement was stronger for females than males (Hoglund, 2007; Tortura et al., 2014). Thus, it was expected that there would be differences among genders in this association.

## Question 2

Do students' perceptions of social support mediate or moderate the association between relational victimization and academic achievement? Did this association differ significantly between males and females? Victimization in middle school students has been consistently associated with lower academic performance (Juvonen, Nishina, & Graham, 2000; Juvonen, Wang, & Espinoza, 2011; Rothon, Head, Klineberg, & Stansfeld, 2011; Wang, Iannotti, & Luk, 2011). Although these studies focus on global victimization, it was expected that relational

victimization would also be associated with academic achievement. Additionally, the literature suggests that the correlation between victimization and academic achievement does not differ across genders and the estimated effect sizes have been similar for boys and girls (Nakamoto & Schwartz, 2009); thus, it was expected that the association between relational victimization and academic achievement would function similarly for males and females.

The literature also suggests that social support is associated with better academic adjustment (Demaray & Malecki, 2002; Rothon, Head, Klineberg, & Stansfeld, 2011; Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2014). Additionally, victims of aggression perceived less social support than students not involved in aggression (Connors-Burrow, Johnson, Whiteside-Mansell, McKelvey, & Gargus, 2009; Demaray & Malecki, 2003; Holt & Espelage, 2007). However, the literature that examined how social support impacts the effect of victimization on academic adjustment among adolescents is limited. Using the stress-buffering hypothesis, social support acts as a buffer against negative outcomes related to victimization. When incorporating the aforementioned literature, it was expected that social support would *moderate* the association between victimization and academic achievement.

Although social support from all sources appears to be beneficial, it was expected that the strength of these associations on academic achievement will function differently by different sources of support (Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015).

Social support from parents has been found to have the greatest association with academic achievement above social supports from other sources (Demaray & Malecki, 2002; Rueger et al., 2010; Song et al., 2014). This association has been found in both males and females (Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015). Although the

literature that examined how social support impacts the effect of victimization on academic adjustment among adolescents is limited, one study found that social support from family moderated the effect of victimization on academic adjustment (Rothon, Head, Klineberg, & Stansfeld, 2011). Thus, it was expected that the association would be strongest when examining support from parents. It was also expected that the association between social support from parents, relational victimization, and academic achievement would function similarly for males and females.

The literature suggests that social support from teachers is positively associated with academic achievement (Ahmed, Minnart, Van Der Werf, & Kuyper, 2010; Malecki & Demaray, 2006; Malecki & Elliott, 1999; Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015). However, the strength of this association differs across studies. Additionally, the literature has not yet examined how social support from teachers impacts the effect of victimization on academic adjustment among adolescents. Thus, it was expected that social support from teachers would have a small effect on the association of relational victimization on academic achievement. Additionally, the literature suggests that social support from teachers among middle school students is associated with academic achievement for females but not for males (Rueger, Malecki, & Demaray, 2010). Additionally, social support was associated with more outcomes for females than for males (Rueger et al., 2010). Thus, it was expected that the association between social support from teachers, relational victimization, and academic achievement would differ by gender; social support from teachers among females would moderate the association between relational victimization and academic achievement. However, it was expected that this association would function differently for males and females.



The literature also suggests that classmate support has a small effect on academic achievement (Malecki & Demaray, 2006). Additionally, classmate support impacted the association between victimization and academic adjustment (Wang, Iannotti, & Luk, 2011). Thus, it was expected that classmates would have a small effect on the association of relational victimization and academic achievement. However, the literature suggests that classmate social support, among middle school students, is associated with academic achievement for females but not for males (Rueger, Malecki, & Demaray, 2010). Additionally, social support was associated with outcomes for females than for males (Rueger et al., 2010). Thus, it was expected that the association between social support from classmates, relational victimization, and academic achievement would differ by gender; social support from classmates among females would moderate the association between relational victimization and academic achievement. However, it was expected that this association would not be found among males.

## CHAPTER 3

### METHODOLOGY

#### Participants

The participants in this study were seventh and eighth grade students from an Illinois suburban middle school that were part of an all-school evaluation that occurred in May, 2014. During the 2013-2014 academic school, 892 students were enrolled. Eighty percent of students attending the school were White. Additionally, 56% of the students attending the school were from a low-income background (i.e., receiving free and reduced lunch) and 2% of the students did not have permanent or adequate home (i.e., homeless). Also, 15% of students received special education services through an Individualized Education Plan (IEP). The school also partook in the state achievement assessment, Illinois State Achievement Test (ISAT); 49% of the students met or exceeded standards in reading, compared to 59% of students within the state that met or exceeded standards. Additionally, 42% of the students met or exceeded standards in mathematics, compared to 59% of students within the state that met or exceeded standards.

For a more detailed demographic break down of the school during the 2013-2014 academic school year, see Table 1. More detailed sample data will be presented after data cleaning procedures are discussed.

Table 1  
2013-2014 Academic School Year Demographics

	N	% Total Sample	N	% Illinois Report Card
Total	892	---	1,116	---
Male	463	51.9%	---	---
Female	429	48.1%	---	---
7th Grade	464	52%	---	---
8th Grade	428	48%	---	---
Asian American	21	2.4%	21	1.9%
African American	36	4.0%	46	4.1%
Hispanic American	84	9.4%	118	10.6%
Indian/Alaskan Native	6	0.7%	7	0.6%
Two or More Races	31	3.5%	55	4.9%
White	714	80%	868	77.8%
Free Lunch	398	44.6%	625	56%
Reduced Lunch	104	11.7%		
Normal Lunch	390	43.7%	491	44%

The all-school evaluation occurred in May, 2014. Graduate and undergraduate students from Northern Illinois University collected data on two consecutive days during the students' physical education classes. Around 50-80 students filled out questionnaires in the school's gymnasium during each school period. The first day of data collection included the Child and Adolescent Social Support Scale (CASSS; Malecki et al., 2000), the Big Five Questionnaire for

Children (BFQ-C; Barbaranelli, Caprara, Rabasca, & Pastorelli, 2003), subsections of the Behavior Assessment Scale for Children, second edition (BASC-2; Reynolds & Kamphaus, 2004), a brief demographic questionnaire, and the Children's Social Experience Questionnaire (CSEQ; Crick & Grotpeter, 1996). See Appendix A for the entire protocol for the first day of data collection. Approval from the Northern Illinois University Institutional Review Board (IRB) was sought to use the extant data for current research purposes.

### Measures

Data for the current study was analyzed using the Relational Victimization subscale of the CSEQ (Crick & Grotpeter, 1996), the CASSS (Malecki et al., 2000), and the Depression subscale of the BASC-2 (Reynolds & Kamphaus, 2004). School records were also collected during the all-school evaluation; students' previous year ISAT-Reading scores, current academic school year grade point average (GPA) from all four quarters, and gender. These records were used for research purposes.

#### Children's Social Experience Questionnaire—Self Report (CSEQ-SR; Crick & Grotpeter, 1996)

The Children Self Experience Questionnaire—Self Report (CSEQ-SR; Crick & Grotpeter, 1996) is a self-report measure of aggression. The CSEQ consists of three subscales: overt victimization, relational aggression, and prosocial behaviors. The Overt Victimization subscale assesses the frequency with which other students have harmed or threatened to harm the

student's physical well-being. The Relational subscale assesses how often students have attempted to harm a student's peer relationships. The Prosocial Receipt scale measures how often a student has been the recipient of supportive acts by peers. Items were generated based on a peer-nomination measure of aggression developed in prior research (Crick, 1995; Crick & Grotpeter, 1995). Items were reworded in order to make them appropriate for self-report and to be indicative of victimization rather than perpetration.

Each subscale consists of five items. All three subscales measure the frequency of particular experiences using a Likert-type scale (1 = Never, 2 = Almost Never, 3 = Sometimes, 4 = Almost All of the Time, 5 = All of the Time). Answers within each subscale are summed to yield a composite for overt victimization, relational victimization, and receipt of prosocial acts. Composite scores yield scores ranging from 5-25.

The CSEQ-SR has evidence of reliability on elementary and middle school students (Crick & Grotpeter, 1996; Desjardins et al., 2013; Storch, Crisp, Roberti, Bagner, & Masia-Warner, 2005). There is a distinct, three-factor structure categorizing among overt victimization, relational victimization, and receipt of prosocial acts. Factor loadings ranged from .69 to .88 (Crick & Grotpeter, 1996). Internal structure of the CSEQ-SR was confirmed with inter-correlations among subscales of the CSEQ-SR, with coefficient alphas ranging from .77 to .80 (Crick & Grotpeter, 1996). The CSEQ-SR was initially developed for third through sixth graders. In addition, recent studies reveal that the three subscales of the CSEQ-SR also have good psychometric properties with adolescents ages 13 through 17 (Storch, Crisp, Roberti, Bagner, & Masia-Warner, 2005; Storch & Masia-Warner, 2004).

Child and Adolescent Social Support Scale (CASSS; Malecki et al., 2000)

The CASSS (Malecki et al., 2000) is a self-report measure of perceived social support intended for use with students in grades 3 through 12. The CASSS has 60 items measuring perceived social support from parents, teachers, classmates, close friends, and the school. The CASSS measures the frequency and importance of the twelve supportive behaviors from each source of support; items for the frequency ratings assess how often a student perceives the support, whereas items for the importance ratings assess how important it is to the student that they perceive that support. Students respond to statements using Likert-type scales ranging from 1 (Never) to 6 (Always) for frequency and 1 (Not Important) to 3 (Very Important) for importance.

The items on the CASSS were written to assess perceived social support congruent with Tardy's (1985) model of social support. The CASSS measures student's perceptions of available social support (i.e., emotional, instrumental, informational, and appraisal) from persons in their social network, including parents, teachers, classmates, close friends, and school by asking students to rate the frequency and importance of a number of supportive behaviors. For each source of support, there are three items that assess emotional support (i.e., feeling loved or cared for), three items that assess informational support (i.e., receiving advice or information), three items that assess instrumental support (i.e., receiving helping behaviors including time and resources), and three items that assess appraisal support (i.e., receiving feedback). An example of an emotional support item is "My parent(s) listen to me when I need to talk." "My teacher(s) explains things that I don't understand" is an example of an informational support item. "My classmates spend time doing things with me" is an example of an instrumental support item. An

example of an appraisal support item is “My close friend nicely tells me the truth about how I do on things.”

The CASSS has evidence of reliability and validity on over 1,110 students Grades 3 through 12 (Malecki & Demaray, 2002). Strong, source-based factor structure was found, categorizing among parents, teachers, close friends, classmates, and school. There is strong evidence for reliability of the CASSS, with coefficient alphas ranging from .87 to .94 and test-retest reliabilities ranging from .60 to .70. There is also strong evidence for the validity of the CASSS. Internal structure of the CASSS was confirmed with inter-correlations among subscales of the CASSS, with coefficient alphas ranging from .20 to .54. Evidence of convergent validity was obtained with the Social Support Scale for Children (SSSC) (Harter, 1985), with a correlation of .70. Correlations between subscales were quite similar: Parent, .62; Teacher, .64; Classmate, .66; and Close Friend, .55.

### Behavior Assessment Scale for Children, Self-Report of Personality

(BASC-2; Reynolds & Kamphaus, 2004)

The Behavior Assessment System for Children—Second Edition (BASC-2; Reynolds & Kamphaus, 2004) is a measure of adaptive and problem behavior in children and adolescents. The BASC-2 Self-Report of Personality adolescent version is a 176-item rating scale that measures personality, self-perceptions, thoughts, and feelings from adolescents from ages 12-21. The BASC-2 measures the following scales and composites: anxiety, attention problems, attitude to school, attitude to teachers, atypicality, depression, hyperactivity, interpersonal relations, locus of control, relations with parents, self-esteem, self-reliance, sensation seeking, sense of

inadequacy, social stress, and somatization. The BASC-2 uses a true/false response format for some items and a 4-point response format for other items: 0 (never), 1 (sometimes), 2 (often), 3 (almost always).

The BASC-2 SRP was normed on a large, representative sample of 3,400 children, adolescents, and young adults in the United States. The BASC-2 SRP, Depression subscale also has evidence of reliability and validity. There is strong evidence of internal consistency on the Depression subscale, with coefficient alphas ranging from .86 to .88 in the adolescent sample. There is strong evidence of test-retest reliability on the Depression subscale, with a .82 coefficient alpha in the adolescent sample. The Depression subscale on the BASC-2 SRP is also correlated with other measures. At the adolescent level, the SRP Depression scale is correlated with the ASEBA Youth Self-Report (Achenbach & Rescorla, 2001) Anxious/ Depressed scale ( $r = .38$ ), Conners-Wells' Adolescent Self-Report Scale (CASS; Conners, 1997) Emotional Problems Subscale ( $r = .54$ ), CDI ( $r = .69$ ), Brief Symptom Inventory (BSI; Derogatis, 1993) ( $r = .50$ ), Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) ( $r = .60$ ), and the Minnesota Multiphasic Personality Inventory—2 (MMPI-2; Butcher, Graham, Ben-Porath, Tellegan, Dahlstrom, & Kaemmer, 2001) ( $r = .56$ ).

Illinois Standards Achievement Test (ISAT; Illinois State Board of Education

Division of Assessment, 2010)

Academic achievement will be measured with student's reading scores on the Illinois Standards Achievement Test (ISAT), which participants completed in March 2013 during the



previous school year (2012-2013 academic school year). Students in Illinois completed the ISAT assessment yearly from third through eighth grade as part of required state-wide standardized testing. The ISAT has three components: reading, mathematics, and science. This study will use the ISAT reading scores. The ISAT reading assessment measured two state learning goals: (1) read with understanding and fluency and (2) read and understand literature representative of various societies, eras, and ideas. The ISAT reading test consists of 70 multiple-choice questions and one extended-response questions. The broad reading scores used in the current study were standard scores which range between 120 and 410. The ISAT was normed on a sample of about 15,000 Illinois students. There is strong evidence for reliability of the ISAT, with coefficient alphas for both seventh and eighth grade as .90. Empirical data, with all the student population, was used to evaluate test structure through point-biserial correlations of item-total and subscale-total correlations. The median of the item point-biserial correlations across reading among seventh- and eighth-grade students was .39 and .38, respectively. Concurrent validity evidence was developed with the use of Pearson r-correlations between scores computed with census ISAT and SAT 10 items; SAT 10 items were embedded in the ISAT to provide national norm interpretations. There is strong evidence of validity between SAT 10 and the full ISAT that includes SAT 10 items (.95 for seventh grade and .94 for eighth grade). There is also strong evidence of validity between the SAT 10 and the ISAT after excluding SAT 10 items (.78 for both seventh and eighth grade).

### Grade Point Average Conversion

School records were collected during the all-school evaluation; grades from all four quarters of the current 2013-2014 school year were used. English, Language Arts, and Reading scores were used for this study's analyses. The grades were collected using an A+, A, A-, etc. scale. These grades were converted on a 4.0 numerical scale (i.e., A = 4.0, B = 3.0, C = 2.0, D = 1.0, F = 0.0). After the classes were converted into a 4.0 scale, the average of the students' Language Arts, English, and Reading classes were calculated into their final GPA.

### Statistical Analyses

All analyses were conducted using SPSS version 23. For all moderation regression analyses PROCESS software by Andrew Hayes (2012) was used. This program runs within IBM's SPSS and completes a number of analyses automatically for the user. PROCESS software centers all relevant predictor variables, creates all necessary interaction terms when moderators are present, and automatically completes simple slope analyses for each level of the moderator (or at +/- 1 standard deviation for continuous moderators).

### Data Cleaning Procedures

The sample consist of 976 students. First, 107 cases were deleted due to missing ID numbers thus unable to be matched to records data. Second, cases were deleted if the student did

not attempt the last measure, CSEQ-Relational Victimization, or were missing more than two items on the CSEQ-Relational Victimization. This resulted in 369 cases being deleted. Third, values outside of the expected range were considered invalid. Cases with invalid responses were removed in sequential order, beginning with the first item—CASSS-Parent, item one—in the following order: CASSS-Parent, CASSS-Teacher, CASSS-Classmate, BASC-Depression, CSEQ-Relational Victimization. Refer to Table 2 for the number of cases deleted within the sample. After the invalid responses removed, the sample consisted of 477 students.

Table 2

## Number of Deleted Cases Due to Invalid Responses

Measure	Number of Deleted Cases
CASSS-Parent	2
CASSS-Teacher	1
CASSS-Classmate	0
BASC-Depression	42
CSEQ-Relational Victimization	2

Next, the nature of missing data was considered. Some participants may have skipped an item and some participants may not have been able to complete all items due to time constraints associated with survey administration. Each measure was carefully examined to determine the nature of missing data. Cases were deleted more than 20% of the responses on a measure were missing. On the BASC-2, Reynolds and Kamphaus (2004) state that if more than two items are omitted, the scale becomes unscorable. Thus, if two or more items were missing on the BASC-2,

they were omitted. Overall, no cases were deleted from the CASSS due to missing data; however, six cases were deleted due to missing data on the BASC-Depression.

In all, 505 cases were deleted due to missing identification numbers, not completing the last measure, invalid responses, or were missing more than 20% of responses on a measure.

Refer to Table 3 for post-data cleaning descriptives of valid cases, missing cases, and percent of missing cases per each item.

Table 3

## Descriptives of Missing Data after Deletion of Invalid and Missing Cases

Measure	Item	Valid Cases	Missing Cases	Percent Missing
CASSS-Parent	My parent(s) show they is proud of me.	471	0	0.00%
	My parent(s) understand me.	470	1	0.21%
	My parent(s) listen to me when I need to talk.	469	2	0.43%
	My parent(s) make suggestions when I don't know what to do.	468	3	0.64%
	My parent(s) give me good advice.	471	0	0.00%
	My parent(s) help me solve my problems by giving me information.	468	3	0.64%
	My parent(s) tell me I did a good job when I do something well.	471	0	0.00%
	My parent(s) nicely tell me when I make mistakes.	469	2	0.43%
	My parent(s) reward me when I've done something well.	469	2	0.43%
	My parent(s) help me practice my activities.	467	4	0.86%
	My parent(s) takes time to help me decide things.	470	1	0.21%
	My parent(s) gets me many of the things I need.	470	1	0.21%
CASSS-Teacher	My teachers care about me	469	2	0.43%
	My teachers treat me fairly	471	0	0.00%
	My teachers make it okay to ask questions	471	0	0.00%
	My teachers explain things that I don't understand	469	2	0.43%
	My teachers show me how to do things	471	0	0.00%
	My teachers help me solve my problems by giving me information	470	1	0.21%
	My teachers tell me I did a good job when I've done something well	469	2	0.43%
	My teachers nicely tell me when I make mistakes	469	2	0.43%
	My teachers tell me how well I do on tasks	471	0	0.00%
	My teachers make sure I have what I need for school	469	2	0.43%
	My teachers take time to help me learn to do something well	470	1	0.21%
	My teachers spend time with me when I need help	471	0	0.00%
CASSS-Classmate	My classmates treat me nicely	469	2	0.43%
	My classmates like most of my ideas and opinions	469	2	0.43%
	My classmates pay attention to me	471	0	0.00%
	My classmates give me ideas when I don't know what to do	471	0	0.00%
	My classmates give me information so I can learn new things	470	1	0.21%
	My classmates give me good advice	471	0	0.00%
	My classmates tell me I did a good job when I do something well	470	1	0.21%
	My classmates nicely tell me when I make mistakes	471	0	0.00%
	My classmates notice when I have worked hard	471	0	0.00%
	My classmates ask me to join activities	471	0	0.00%
	My classmates spend time doing things with me	470	1	0.21%
	My classmates help me with projects in class	471	0	0.00%

(Continued on following page)

Table 3 (continued)

Measure	Item	Valid Cases	Missing Cases	Percent Missing
BASC- Depression	Nothing goes my way	468	3	0.64%
	I used to be happier	469	2	0.43%
	Nothing is fun anymore	469	2	0.43%
	Nobody ever listens to me	468	3	0.64%
	I just don't care anymore	470	1	0.21%
	I don't seem to do anything right	471	0	0.00%
	Nothing ever goes right for me	471	0	0.00%
	Nothing about me is right	469	2	0.43%
	I feel like my life is getting worse and worse	467	4	0.86%
	I feel depressed	468	3	0.64%
	No one understands me	470	1	0.21%
	I feel sad	468	3	0.64%
CSEQ- Relational Victimization	How often do other peers leave you out or exclude you from activities when they are angry with you	469	2	0.43%
	How often does a peer try to get even with you by excluding you from their group of friends	470	1	0.21%
	How often does a peer spread rumors or gossip about you to make others not like you anymore	470	1	0.21%
	How often does another peer threaten to not hang out with you unless you do what they want you to do	471	0	0.00%
	How often does a peer try to keep others from hanging out with you by saying mean things about you	467	4	0.86%

Overall, the sample of the current study consisted of 471 students (222 males, 249 females). Of these students, 392 were White (83.3%), 35 were Hispanic (7.4%), 11 were African American (2.3%), 15 were Asian (3.2%), 1 was Indian/Alaskan Native (0.2%), and 17 reported as “Two or More Races” (3.6%). In the total sample, 221 students were in Grade 7 (46.9%) and 250 students were in Grade 8 (53.1%). Table 4 displays the descriptive data for the total sample and by gender.

Table 4

## Descriptives for Total Sample and by Gender

	Total Sample		Male Subsample		Female Subsample	
	N	% Total Sample	N	% Total Sample	N	% Total Sample
Total	471	---	222	47.1%	249	52.9%
7th Grade	221	46.9%	96	43.2%	125	50.2%
8th Grade	250	53.1%	126	56.8%	124	49.8%
Asian American	15	3.2%	7	3.2%	8	3.2%
African American	11	2.3%	2	0.9%	9	3.6%
Hispanic American	35	7.4%	20	9.0%	15	6.0%
Indian/Alaskan Native	1	0.2%	0	0.0%	1	0.4%
Two or More Races	17	3.6%	9	4.1%	8	3.2%
White	392	83.3%	184	82.9%	208	83.5%
Receive Free/Reduced Lunch	250	53.0%	115	51.8%	135	54.2%

## Total Score Conversion

Total scale scores were computed. On the CASSS, the mean of items was calculated for each source of support. On the BASC-2, Reynolds and Kamphaus (2004) state that if there are two or less items are omitted, a constant can be added to each missing value. A constant is defined as, “the average score on that scale’s item, [...] rounded to the nearest point.” (Reynolds & Kamphaus, 2004, p. 15). True and false items were recoded as 1 and 2. Reverse items were also recoded. Missing values were replaced with 1 if the total number of missing items per that scale was 2. The raw scores were then summed and converted into T-scores using combined sex

norms. The total score for the CSEQ-Relational Victimization was computed with the mean of items.

### Significant Differences Between the Final Sample and Deleted Cases

Independent-samples t-tests were run to determine if there were differences in the main variables between the final sample and the sample of deleted cases. There was a statistically significant difference in grade level between the final sample and the deleted cases,  $t(891) = -2.12, p = .03$ . There were more eighth-grade students in the final sample than the sample of deleted cases. There was a statistically significant difference among genders between the final sample and the deleted cases,  $t(891) = -2.70, p = .007$ . There were more females in the final sample than the sample of deleted cases. There was a statistically significant difference of ISAT scores between the final sample and the deleted cases,  $t(808) = -5.52, p < .001$ . Students performed higher on the ISAT in the final sample than in the sample of deleted cases. There was a statistically significant difference of GPAs between the final sample and the deleted cases,  $t(890) = -5.886, p < .001$ . Students in the final sample had higher GPAs than students in the sample of deleted cases. There was not a statistically significant difference of perceptions of social support from parents between the final sample and the deleted cases,  $t(948) = -.88, p = .38$ . Students in the final sample perceived similar levels of social support from parents as the students in the sample of deleted cases. There was not a statistically significant difference of perceptions of social support from teachers between the final sample and the deleted cases,  $t(947) = -1.35, p = .18$ . Students in the final sample perceived similar levels of social support from teachers as the students in the sample of deleted cases. There was not a statistically



significant difference of perceptions of social support from classmates between the final sample and the deleted cases,  $t(944) = -.04, p = .97$ . Students in the final sample perceived similar levels of social support from classmates as the students in the sample of deleted cases. There was a statistically significant difference in symptoms of depression between the final sample and the deleted cases,  $t(483.57) = 2.28, p = .02$ . Students in the final sample perceived lower levels of depression than the students in the sample of deleted cases. However, it is important to note that the final sample consisted of 471 students, whereas the sample of deleted cases consisted of only 268 students; thus, equal variances were not assumed. There was a statistically significant difference in perceptions of relational victimization between the final sample and the deleted cases,  $t(547) = 4.55, p < .001$ . Students in the final sample reported lower levels of relational victimization than the students in the sample of deleted cases.

## Research Questions and Proposed Analysis Plan

### Research Question 1

Do students' symptoms of depression mediate or moderate the association between relational victimization and academic achievement? Did this association differ significantly between males and females? It was predicted that symptoms of depression would mediate the association between relational victimization and academic achievement.

First, to examine the association between relational victimization and academic achievement considering depression as a mediator, conditional process modeling was used (Hayes, 2013). Using Model 8 in PROCESS, it was tested whether or not depression could

mediate the interaction between relational victimization and gender predicting academic achievement. This type of mediation is called “first stage and direct effect moderation.” This model allows the direct and indirect effects of an independent variable (X; relational victimization) on a dependent variable (Y; academic achievement) through a mediator (M; depression) to be moderated (W; gender). This conceptual model is a test of whether the indirect effect of relational victimization on academic achievement through depression differs between males and females. A bootstrapping method (Preacher & Hayes, 2004) was used to examine this moderated mediation model. Bootstrapping creates a large, predetermined number of samples by sampling with replacement and calculates the indirect effect in each sample. For the current study, 1,000 samples were created. The distribution of the estimated effects from all of the samples was then examined to determine whether the indirect effect was significant. If the 95% confidence interval of estimated indirect effects did not include zero, it was concluded that the indirect effect was significantly different from zero at  $p < .05$ . These analyses were run separately using GPA and ISAT as outcome variables. Figure 1 illustrates that relational victimization was the focal predictor, depression was the mediator, and gender as the moderator of the indirect effect.

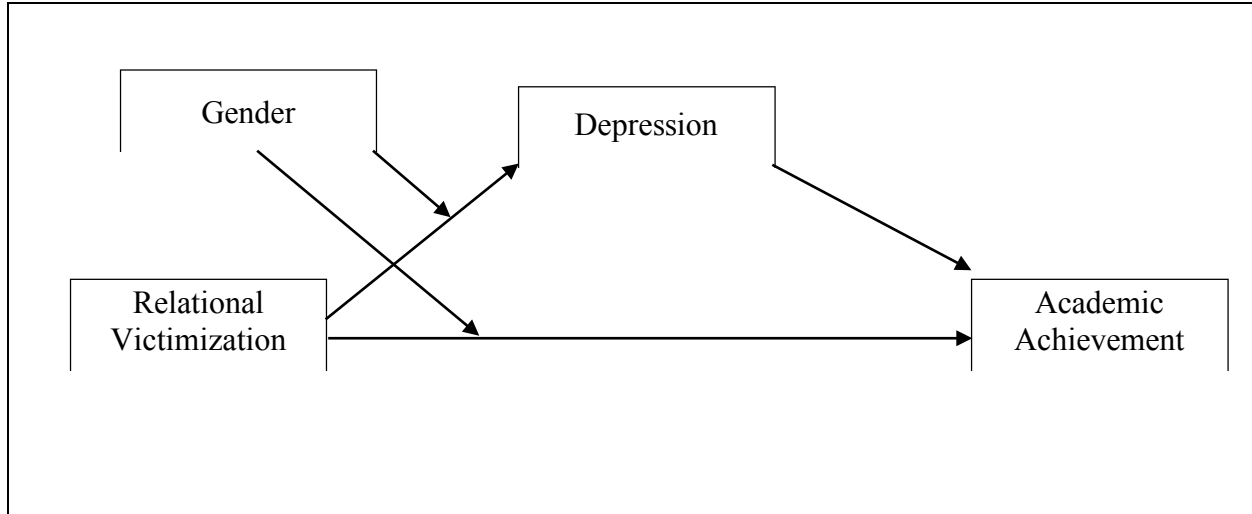


Figure 1. A moderated mediation model with relational victimization as the focal predictor, depression as a mediator of relational victimization's effect on academic achievement, and gender moderating the indirect effect of depression on relational victimization and academic achievement.

Next, to examine the association between relational victimization and academic achievement considering depression as a moderator, a three-way interaction was conducted using hierarchical multiple regressions. Using Model 3 in PROCESS, it was tested whether or not depression could moderate the association between relational victimization and academic achievement. Additionally, this model also assesses whether gender moderates the moderation of depression on relational victimization and academic achievement. This is also known as a moderated moderation model. The first step in the moderated moderation model is to assess whether or not all of the predictors (relational victimization, depression, and gender) account for a significant amount of variance in academic achievement. The second step in moderated moderation is to assess whether the predictor variables are significant predictors of academic achievement. If there are significant interactions, the third step in moderated moderation is to

examine the conditional interaction of relational victimization and depression between males and females. The moderated moderation models were run separately using GPA and ISAT scores as outcome variables for academic achievement. Figure 2 illustrates the moderation model where relational victimization is the focal predictor, depression is the moderator, gender is the secondary moderator, and academic achievement as the outcome variable.

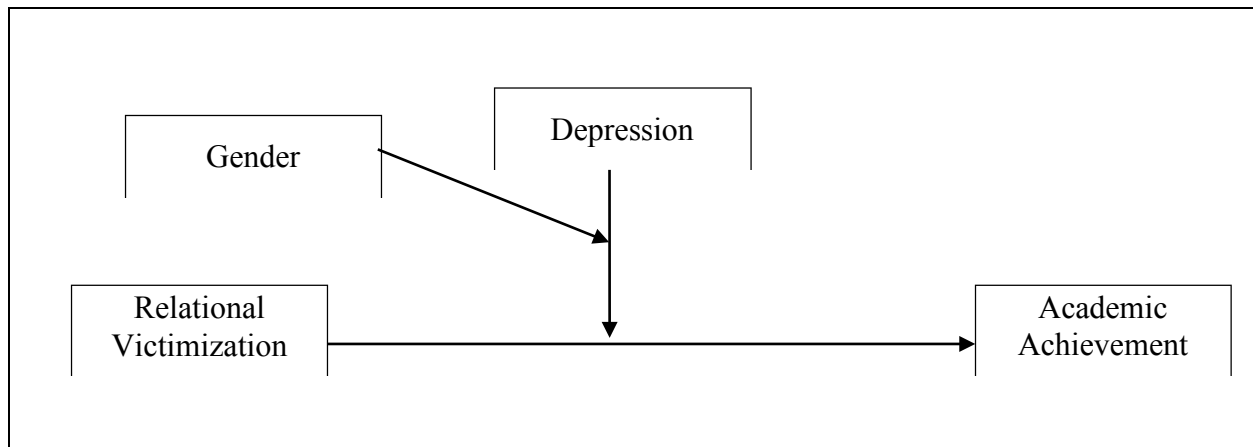


Figure 2. A moderated moderation model with relational victimization as the focal predictor, depression as a moderator of relational victimization's effect on academic achievement, and gender as the secondary moderator that moderates the effect of depression on relational victimization and academic achievement.

### Research Question 2

Do students' perceptions of social support mediate or moderate the association between relational victimization and academic achievement? Did this association differ significantly

between males and females? It was predicted that students' perceptions of social support would moderate the association between relational victimization and academic achievement.

First, to examine the association between relational victimization and academic achievement considering social support as a moderator, a three-way interaction was conducted using hierarchical multiple regressions. Using Model 3 in PROCESS, it was tested whether or not social support could moderate the association between relational victimization and academic achievement. Additionally, this model also assesses whether gender moderates the moderation of social support on relational victimization and academic achievement. This is also known as a moderated moderation model. The first step in the moderated moderation model is to assess whether or not all of the predictors (relational victimization, social support, and gender) account for a significant amount of variance in academic achievement. The second step in moderated moderation is to assess whether the predictor variables are significant predictors of academic achievement. If there are significant interactions, the third step in moderated moderation is to examine the conditional interaction of relational victimization and social support between males and females. These analyses were run separately using GPA and ISAT as outcome variables and separately for each source of support as moderators. Figure 3 illustrates that relational victimization was the focal predictor, social support was the moderator, and gender as the moderator of the indirect effect.

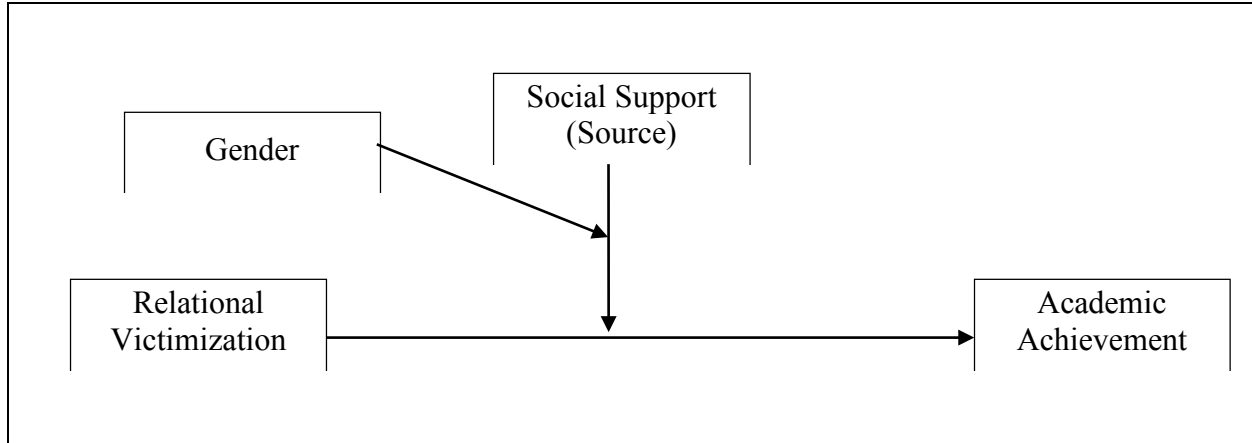


Figure 3. A moderated moderation model with relational victimization as the focal predictor, social support as a moderator of relational victimization's effect on academic achievement, and gender as the secondary moderator that moderates the effect of social support on relational victimization and academic achievement.

Next, to examine the association between relational victimization and academic achievement considering social support as a mediator, conditional process modeling was used (Hayes, 2013). Using Model 8 in PROCESS, it was tested whether or not social support could mediate the interaction between relational victimization and gender predicting academic achievement. This type of mediation is called “first stage and direct effect moderation.” This model allows the direct and indirect effects of an independent variable (X; relational victimization) on a dependent variable (Y; academic achievement) through a mediator (M; social support) to be moderated (W; gender). This conceptual model is a test of whether the indirect effect of relational victimization on academic achievement through social support differs between males and females. A bootstrapping method (Preacher & Hayes, 2004) was used to examine this moderated mediation model. Bootstrapping creates a large, predetermined number of samples by sampling with replacement and calculates the indirect effect in each sample. For the current study, 1,000 samples were created. The distribution of the estimated effects from all

of the samples was then examined to determine whether the indirect effect was significant. If the 95% confidence interval of estimated indirect effects did not include zero, it was concluded that the indirect effect was significantly different from zero at  $p < .05$ . These analyses were run separately using GPA and ISAT as outcome variables and separately for each source of support as mediators. Figure 4 illustrates that relational victimization was the focal predictor, social support was the mediator, and gender as the moderator of the indirect effect.

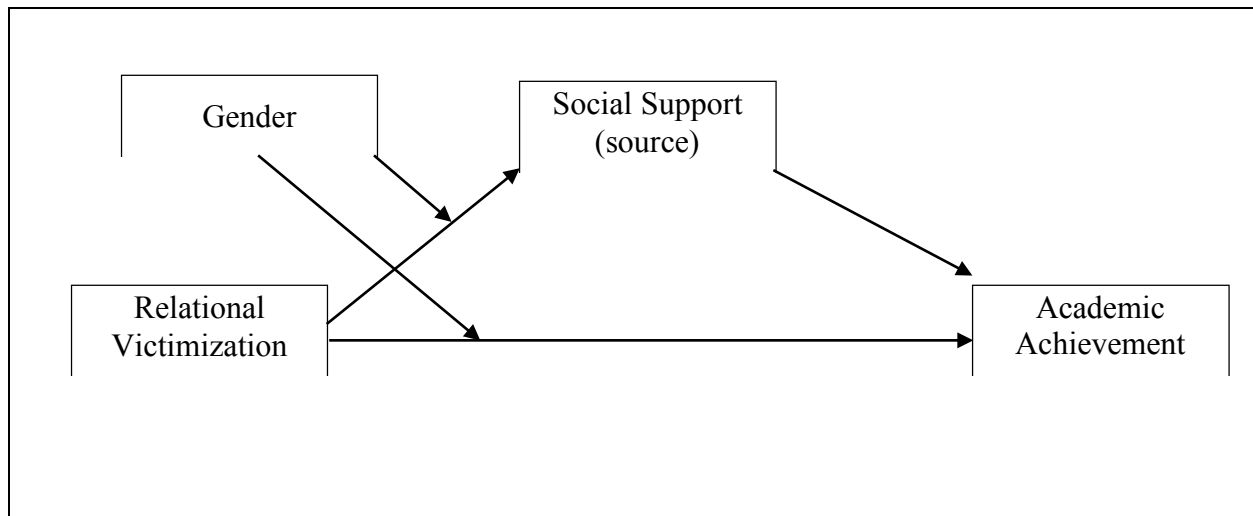


Figure 4. A moderated mediation model with relational victimization as the focal predictor, social support as a mediator of relational victimization's effect on academic achievement, and gender moderating the indirect effect of social support on relational victimization and academic achievement.

CHAPTER 4  
RESULTS

Preliminary Results

Descriptive analyses of the independent and dependent variables were conducted prior to examining the hypotheses. Descriptive information on the number of participants, mean, standard deviation, range, and Cronbach's Alphas for all main variables were examined (see Table 5). Additionally, descriptive information regarding the sample size, means, standard deviations of the sample's CASSS scores (i.e., parent, teacher, classmate), BASC-2 scores, CSEQ scores, ISAT scores, and GPA for the total sample and by gender and grade level (see Table 6 and Table 7).

Table 5

Descriptive Statistic for Main Variables

Composite Variables	N	Mean	SD	Range	Cronbach's $\alpha$
Parent Social Support	471	4.44	1.11	1.00-6.00	.94
Teacher Social Support	471	4.40	1.10	1.00-6.00	.94
Classmate Social Support	471	3.69	1.16	1.00-6.00	.94
Depression	471	53.23	12.82	40.00-86.00	.70
Relational Victimization	471	2.19	.99	1.00-5.00	.87
GPA	471	2.72	.96	0.13-4.00	---
ISAT Reading Scaled Score	432	246.57	22.81	166-312	---



Table 6

## Descriptive Statistics for Main Variables by Gender

Composite Variables	N	Mean	SD
Parent Social Support - Males	222	4.49	1.10
Parent Social Support - Females	249	4.40	1.12
Teacher Social Support - Males	222	4.31	1.18
Teacher Social Support - Females	249	4.47	1.01
Classmate Social Support - Males	222	3.69	1.13
Classmate Social Support - Females	249	3.68	1.18
Depression - Males	222	51.56	11.35
Depression - Females	249	54.72	13.85
Relational Victimization - Males	222	2.16	1.00
Relational Victimization - Females	249	2.22	0.99
GPA - Males	222	2.45	0.98
GPA - Females	249	2.95	0.87
ISAT Reading Scaled Score - Males	201	243.92	23.41
ISAT Reading Scaled Score - Females	231	248.87	22.06

Table 7

## Descriptive Statistics for Main Variables by Grade

Composite Variables	N	Mean	SD
Parent Social Support – 7 <sup>th</sup>	221	4.48	1.06
Parent Social Support – 8 <sup>th</sup>	250	4.41	1.15
Teacher Social Support – 7 <sup>th</sup>	221	4.52	1.00
Teacher Social Support – 8 <sup>th</sup>	250	4.29	1.65
Classmate Social Support – 7 <sup>th</sup>	221	3.68	1.11
Classmate Social Support – 8 <sup>th</sup>	250	3.69	1.20
Depression – 7 <sup>th</sup>	221	52.60	12.29
Depression – 8 <sup>th</sup>	250	53.79	13.27
Relational Victimization – 7 <sup>th</sup>	221	2.07	0.91
Relational Victimization – 8 <sup>th</sup>	250	2.30	1.06
GPA – 7 <sup>th</sup>	221	2.86	0.88
GPA – 8 <sup>th</sup>	250	2.58	1.00
ISAT Reading Scaled Score – 7 <sup>th</sup>	203	248.25	18.65
ISAT Reading Scaled Score – 8 <sup>th</sup>	229	245.08	25.89

Pearson correlations were obtained to examine patterns of associations among the variables (See Table 8). The statistically significant correlations are as follows. ISAT scaled scores were positively correlated with GPA ( $r = .53, p < .001$ ) and negatively correlated with Classmate Social Support ( $r = -.10, p = .023$ ), Depression ( $r = -.17, p < .001$ ), and Relational Victimization ( $r = -.24, p < .001$ ). Students with higher academic achievement (ISAT) perceived lower levels of classmate support and reported lower levels of depression and relational victimization. GPA was positively correlated with Parent Social Support ( $r = .22, p < .001$ ) and

Teacher Social Support ( $r = .21, p < .001$ ); students that perceived higher levels of social support from teachers and parents performed stronger academically (GPA). GPA was negatively correlated with Depression ( $r = -.21, p < .001$ ) and Relational Victimization ( $r = -.27, p < .001$ ). Students that reported higher levels of depression and relational victimization tend to perform lower academically (GPA). Parent Social Support was positively correlated with Teacher Social Support ( $r = .42, p < .001$ ) and Classmate Social Support ( $r = .40, p < .001$ ); Parent Social Support was negatively correlated with Depression ( $r = -.52, p < .001$ ) and Relational Victimization ( $r = -.25, p < .001$ ). Students who perceived higher levels of social support from parents also perceived higher levels of social support from teachers and classmates. Additionally, students who perceived higher levels of social support from parents also reported lower levels of depression and relational victimization. Teacher Social Support was positively correlated with Classmate Social Support ( $r = .32, p < .001$ ) and negatively correlated with Depression ( $r = -.24, p < .001$ ) and Relational Victimization ( $r = -.22, p < .001$ ). Students who perceived higher levels of social support from teachers also perceived higher levels of social support from classmates and reported lower levels of depression and relational victimization. Classmate Social Support was shown to be negatively correlated with Depression ( $r = -.38, p < .001$ ) and Relational Victimization ( $r = -.25, p < .001$ ). Students who perceived higher levels of social support from classmates reported lower levels of depression and relational victimization. Depression was positively correlated with Relational Victimization ( $r = .53, p < .001$ ). Students who reported higher levels of depression also reported higher levels of relational victimization.

Table 8  
Correlations of Main Variables for Total Sample

	1	2	3	4	5	6	7
1. ISAT Scaled Score	---						
2. GPA	.53**	---					
3. Parent Support	.07	.22**	---				
4. Teacher Support	.06	.21**	.42**	---			
5. Classmate Support	-.10*	.04	.40**	.32**	---		
6. Depression T-Score	-.17**	-.21**	-.50**	-.24**	-.38**	---	
7. Relational Victimization	-.24**	-.27**	-.25**	-.22**	-.25**	.53**	---

\*\*  $p < 0.01$ . \*  $p < 0.05$ .

Pearson correlations were also obtained to examine patterns of associations among the variables by gender (See Table 9). The statistically significant correlations are as follows. ISAT scaled scores were positively correlated with GPA ( $r = .55, p < .001$ ) and negatively correlated with Depression ( $r = -.16, p = .01$ ) and Relational Victimization ( $r = -.19, p = .003$ ) among females. These correlations were also found among males; ISAT scores was shown to positively correlate with GPA ( $r = .49, p < .001$ ) and negatively correlate with Depression ( $r = -.23, p = .001$ ) and Relational Victimization ( $r = -.31, p < .001$ ). GPA among females was positively correlated with Parent Social Support ( $r = .28, p < .001$ ) and teacher social support ( $r = .25, p < .001$ ), and negatively correlated with Depression ( $r = -.27, p < .001$ ) and Relational Victimization ( $r = -.26, p < .001$ ). These patterns of correlations were also found among males;

GPA was positively correlated with Parent Social Support ( $r = .2, p = .002$ ) and teacher social support ( $r = .15, p = .02$ ), and negatively correlated with Depression ( $r = -.26, p < .001$ ) and Relational Victimization ( $r = -.31, p < .001$ ). Perceived social support from parents among females was shown to be positively correlated with social support from teachers ( $r = .39, p < .001$ ) and classmates ( $r = .44, p < .001$ ); perceived social support from parents among females was also shown to be negatively correlated with Depression ( $r = -.56, p < .001$ ) and Relational Victimization ( $r = -.31, p < .001$ ). These correlations were also found among males: perceived social support from parents was shown to be positively correlated with social support from teachers ( $r = .47, p < .001$ ) and classmates ( $r = .36, p < .001$ ) and negatively correlated with Depression ( $r = -.42, p < .001$ ) and Relational Victimization ( $r = -.19, p = .003$ ). Perceived social support from teachers among females was shown to be positively correlated with classmate social support ( $r = .34, p < .001$ ) and negatively correlated with Depression ( $r = -.35, p < .001$ ) and Relational Victimization ( $r = -.30, p < .001$ ). These correlations were similar among males; perceived social support from teachers was shown to be positively correlated with classmate social support ( $r = .31, p < .001$ ) and negatively correlated with Depression ( $r = -.14, p = .02$ ) and Relational Victimization ( $r = -.15, p = .01$ ). Depression among females was shown to be positively correlated with Relational Victimization ( $r = .57, p < .001$ ); this correlation was also found among males ( $r = .58, p < .001$ ).

Table 9  
Correlations of Main Variables by Gender

	1	2	3	4	5	6	7
1. ISAT Scaled Score	---	.55**	.04	.06	-.10	-.16*	-.19**
2. GPA	.49**	---	.28**	.25**	.10	-.27**	-.26**
3. Parent Support	.11	.20**	---	.39**	.44**	-.56**	-.31**
4. Teacher Support	.04	.15*	.47**	---	.34**	-.44**	-.35**
5. Classmate Support	-.12	-.01	.36**	.31**	---	-.26**	-.13*
6. Depression T-Score	-.23**	-.26**	-.42**	-.14*	-.29**	---	.54**
7. Relational Victimization	-.31**	-.31**	-.19**	-.15*	-.13*	.51**	---

*Note.* Females are above the diagonal and males are below the diagonal; \*\*  $p < .01$ . \*  $p < 0.05$ .

Pearson correlations were also obtained to examine patterns of associations among the variables by grade (See Table 10). The statistically significant correlations are as follows. ISAT scores among seventh-grade students was shown to positively correlate with GPA ( $r = .55, p < .001$ ). However, ISAT scores among eighth-grade students was positively correlated with GPA ( $r = .52, p < .001$ ) and negatively correlated with Classmate Social Support ( $r = -.13, p = .04$ ), Depression ( $r = -.21, p = .001$ ), and Relational Victimization ( $r = -.31, p < .001$ ). GPA among seventh-grade students was shown to positively correlate with Parent Social Support ( $r = .19, p = .004$ ) and Teacher Social Support ( $r = .21, p = .002$ ). GPA among seventh-grade students was

also shown to negatively correlate with Depression ( $r = -.23, p < .001$ ) and Relational Victimization ( $r = -.21, p = .003$ ). These correlations were similar among eighth-grade students: GPA was shown to positively correlate with Parent Social Support ( $r = .24, < .001$ ) and Teacher Social Support ( $r = .18, p = .003$ ), and negatively correlate with Depression ( $r = -.20, p = .001$ ) and Relational Victimization ( $r = -.29, p < .001$ ). Parent Social Support among seventh-grade students was shown to positively correlate with Teacher Social Support ( $r = .45, p < .001$ ) and Classmate Social Support ( $r = .46, p < .001$ ). Parent Social Support among seventh-grade students was shown to negatively correlate with Depression ( $r = -.58, p < .001$ ) and Relational Victimization ( $r = -.30, p < .001$ ). These correlations similar among eighth-grade students: Parent Social Support was shown to positively correlate with Teacher Social Support ( $r = .40, p < .001$ ) and Classmate Social Support ( $r = .36, p < .001$ ). Additionally, Parent Social Support among eighth-grade students was shown to negatively correlate with Depression ( $r = -.49, p < .001$ ) and Relational Victimization ( $r = -.26, p < .001$ ). Teacher Social Support among seventh-grade students was shown to positively correlate with Classmate Social Support ( $r = .28, p < .001$ ) and negatively correlate with Depression ( $r = -.31, p < .001$ ) and Relational Victimization ( $r = -.22, p < .001$ ). These correlations were similar among eighth-grade students. Teacher Social Support among eighth-grade students was shown to positively correlate with Classmate Social Support ( $r = .34, p < .001$ ) and negatively correlate with Depression ( $r = -.19, p = .002$ ) and Relational Victimization ( $r = -.20, p = .001$ ). Classmate Social Support among seventh-grade students was shown to negatively correlate with Depression ( $r = -.45, p < .001$ ) and Relational Victimization ( $r = -.31, p < .001$ ). These correlations were similar among eighth-grade students; Classmate Social Support was shown to negatively correlate with Depression ( $r =$

-.32,  $p < .001$ ) and Relational Victimization ( $r = -.22, p < .001$ ). Depression among seventh-grade students was shown to positively correlate with Relational Victimization ( $r = -.56, p < .001$ ). Similarly, Depression among eighth-grade students was shown to positively correlate with Relational Victimization ( $r = -.50, p < .001$ ).

Table 10

## Correlations of Main Variables by Grade

	1	2	3	4	5	6	7
1. ISAT Scaled Score	---	.52**	.07	.03	-.13*	-.21**	-.31**
2. GPA	.55**	---	.24**	.18**	.06	-.20**	-.29**
3. Parent Support	.07	.19**	---	.40**	.36**	-.43**	-.22**
4. Teacher Support	.08	.21**	.45**	---	.34**	-.19**	-.20**
5. Classmate Support	-.06	.01	.46**	.28**	---	-.32**	-.22**
6. Depression T-Score	-.11	-.23**	-.58**	-.31**	-.45**	---	.50**
7. Relational Victimization	-.12	-.20**	-.30**	-.22**	-.31**	.56**	---

Note. 8<sup>th</sup> grade is above the diagonal and 7<sup>th</sup> grade is below the diagonal; \*\*  $p < .01$ . \*  $p < 0.05$ .

A one-way ANOVA was conducted to identify any significant gender differences in adolescent's ISAT performance. Their ISAT performance was statistically significantly different between males and females,  $F(1, 430) = 5.12, p = .02$ ; females performed higher on the ISAT than males.



A one-way ANOVA was conducted to identify any significant gender differences in adolescent's GPAs. Their GPAs were statistically significantly different between males and females,  $F(1, 469) = 34.93, p < .001$ ; females achieved higher GPAs than males.

A one-way ANOVA was conducted to identify any significant gender differences in adolescents' perceptions of social support. Perceptions of Parent Social Support did not significantly differ between males and females,  $F(1, 469) = .77, p = .39$ . Perceptions of Teacher Social Support did not significantly differ between males and females,  $F(1, 469) = 2.40, p = .12$ . Perceptions of Classmate Social Support did not significantly differ between males and females,  $F(1, 469) = .003, p = .95$ .

A one-way ANOVA was conducted to identify any significant gender differences in adolescents' reports of depression. Specifically, gender was entered as the independent variable and depression was entered as the dependent variable. There were significant differences in depression, ( $F(1, 469) = 7.22, p = .007$ ); females reported higher levels of depression than males.

A one-way ANOVA was conducted to identify any significant gender differences in adolescents' reports of relational victimization. Specifically, gender was entered as the independent variable and relational victimization was entered as the dependent variable. There was not a significant difference in relational victimization,  $F(1, 469) = .45, p = .50$ .

## Main Analyses

### Associations between Depression, Relational Victimization, and Academic Achievement

Question 1: Do students' symptoms of depression mediate or moderate the association between relational victimization and academic achievement? Did this association differ significantly

between males and females? It was predicted that there would be an association between relational victimization and academic achievement; it was expected that this association would not differ between males and females. It was also expected that depression would mediate the association between victimization and academic achievement; it was expected that this association would differ between males and females.

Regression analysis was used to investigate the hypothesis that depression mediates the effect of relational victimization on academic achievement (ISAT). This was conducted utilizing Model 8 in PROCESS, a model designed to examine the effect of relational victimization on ISAT, with the indirect effect of depression moderated by gender. Results of the bootstrapping analysis with ISAT as the outcome, which are presented in Table 11, are as follows. First, the index of moderated mediation suggests that the indirect effect through depression did not significantly differ between males and females,  $b = -.26$ ,  $SE = .26$ , 95% CI [-1.11, .05]. Next, the conditional indirect effect of relational victimization on ISAT through depression was nonsignificant for males,  $b = -.93$ ,  $SE = .60$ , 95% CI [-2.19, .17]; depression did not mediate the association between relational victimization and academic achievement (ISAT) for males. Last, the conditional indirect effect of relational victimization on ISAT through depression was also nonsignificant for females,  $b = -1.20$ ,  $SE = .77$ , 95% CI [-2.82, .23]; depression did not mediate the association between relational victimization and academic achievement (ISAT) for females.

Table 11

Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (ISAT) through Depression for Males and Females

Gender	Effect	SE	95% CI	
			Lower	Upper
Males	-.93	.60	-2.19	.17
Females	-1.20	.77	-2.82	.23

To test the competing model that depression moderates the association between relational victimization and academic achievement (ISAT), a hierarchical multiple regression analysis was conducted. This was assessed using Model 3 in PROCESS. First, the overall model suggested that relational victimization, depression, and gender, together, accounted for a significant amount of variance of academic achievement using ISAT as an outcome variable,  $F(7, 424) = 4.97, p < .001, R^2 = .09$ . Second, the predictor variables and interactions were examined. Relational victimization was a significant predictor of ISAT,  $b = -4.78, t(424) = -3.58, p < .001$ ; higher levels of relational victimization was associated with lower ISAT scores. However, depression was a not a significant predictor of ISAT,  $b = -.16, t(424) = -1.54, p = .12$ . Depression also did not moderate the effect of relational victimization on academic achievement using ISAT as a predictor variable; the interaction between depression and relational victimization was nonsignificant,  $b = -.01, t(424) = -.10, p = .92$ . Additionally, the three-way interaction between relational victimization, depression, and gender predicting ISAT scores was also not significant, suggesting that there was not a significant difference in the moderation models between males and females,  $b = .13, t(424) = .60, p = .55$ .

Regression analysis was used to investigate the hypothesis that depression mediates the effect of relational victimization on academic achievement (GPA). This was conducted utilizing Model 8 in PROCESS, a model designed to examine the effect of relational victimization on GPA, with the indirect of depression moderated by gender. Results of the bootstrapping analysis with GPA as the outcome variable, which are presented in Table 12, are as follows. First, the index of moderated mediation was not significant, suggesting that the indirect effect of depression did not significantly differ between males and females,  $b = -.02$ ,  $SE = .01$ , 95% CI [-.06, .00]. Next, the conditional indirect effect of relational victimization on GPA through depression was significant for males,  $b = -.07$ ,  $SE = .03$ , 95% CI [-.12, -.02]; depression among males mediates the association between relational victimization and academic achievement (GPA). Last, the conditional indirect effect of relational victimization on GPA through depression was also significant for females,  $b = -.09$ ,  $SE = .03$ , 95% CI [-.16, -.03]; depression among females mediates the association between relational victimization and academic achievement (GPA).

Table 12

Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic

Achievement (GPA) through Depression for Males and Females

Gender	Effect	SE	95% CI	
			Lower	Upper
Males	-.07	.03	-.12	-.02
Females	-.09	.03	-.16	-.03

To test the competing model that depression moderates the association between relational victimization and academic achievement (GPA), a hierarchical multiple regression analysis was conducted. This was assessed using Model 3 in PROCESS. First, the overall model suggested that relational victimization, depression, and gender, together, accounted for a significant amount of variance of academic achievement using GPA as an outcome variable,  $F(7, 463) = 14.73, p < .001, R^2 = .17$ . Second, the predictor variables and interactions were examined. Depression was a significant predictor of GPA,  $b = -.01, t(463) = -2.76, p = .01$ ; higher levels of depression was associated with lower GPAs. Relational victimization was a significant predictor of GPA,  $b = -.19, t(463) = -3.75, p < .001$ ; higher levels of relational victimization was associated with lower GPAs. The two-way interaction between relational victimization and depression predicting GPA was not significant, suggesting that depression did not moderate the association between relational victimization and GPA,  $b = .00, t(463) = .47, p = .65$ . Additionally, the three-way interaction between relational victimization, depression, and gender predicting GPA was also not significant, suggesting that there was not a significant difference in the moderation models between males and females,  $b = .00, t(463) = .22, p = .83$ .

### Associations between Social Support, Relational Victimization, and Academic Achievement

Question 2: Do students' perceptions of social support mediate or moderate the association between relational victimization and academic achievement? Did this association differ significantly between males and females? It was predicted that students' perceptions of social support would moderate the association between relational victimization and academic

achievement. It was also predicted that strength of the associations between social support, victimization, and academic achievement would differ by source of support. Specifically, it was expected that social support from parents has the strongest effect on the association between social support, victimization, and academic achievement. It was expected that social support from teachers will have a small effect on the association between social support, victimization, and academic achievement. It was expected that social support from classmates will have a small effect on the association between social support, victimization, and academic achievement.

It was predicted that the association between social support from parents, relational victimization, and academic achievement will not differ by gender. It was also predicted that social support from teachers among females will moderate the association between relational victimization and academic achievement, but this association will not be found in males. It was also predicted that social support from classmates among females will moderate the association between relational victimization and academic achievement, but this association will not be found in males.

To test the model that social support from parents moderates the association between relational victimization and academic achievement (GPA), a hierarchical multiple regression analysis was conducted. This was assessed using Model 3 in PROCESS. First, the overall model suggested that relational victimization, social support, and gender, together, accounted for a significant amount of variance of academic achievement (GPA),  $F(7, 463) = 17.47, p < .001, R^2 = .18$ . Second, the predictor variables and interactions were examined. Social support from parents was a significant predictor of GPA,  $b = .15, t(463) = 3.69, p < .001$ ; higher social support was associated with higher GPA. Relational victimization was a significant predictor of GPA,  $b$

= -.19,  $t(463) = -3.75$ ,  $p < .001$ ; higher relational victimization was associated with lower GPAs.

The two-way interaction between relational victimization and social support from parents predicting GPA was not significant, suggesting that parent social support did not moderate the association between relational victimization and GPA,  $b = .03$ ,  $t(463) = .47$ ,  $p = .42$ .

Additionally, the three-way interaction between relational victimization, social support from parents, and gender predicting GPA was also not significant, suggesting that there was not a significant difference in the moderation models between males and females,  $b = -.06$ ,  $t(463) = -.88$ ,  $p = .38$ .

To test the competing model that social support from parents mediates the effect of relational victimization on academic achievement (GPA), Model 8 in PROCESS was utilized. Model 8 is designed to examine how social support from parents effects the association between relational victimization on GPA, as well as if the indirect effect is moderated by gender. In other words, does gender impact the mediation model? Results of the bootstrapping analysis with GPA as the outcome, which are presented in Table 13, are as follows. First, the index of moderated mediation suggests that the indirect effect of relational victimization on GPA through parent social support was not significant,  $b = -.02$ ,  $SE = .02$ , 95% CI [-.07, .01]; the mediation model did not significantly differ among males and females. Next, the conditional indirect effects were examined. The conditional indirect effect of relational victimization on GPA through parent social support was significant for males,  $b = -.03$ ,  $SE = .02$ , 95% CI [-.07, -.01]. Parent social support mediated the association between relational victimization and academic achievement (GPA) among males. The conditional indirect effect of relational victimization on GPA through parent social support was also significant among females,  $b = -.05$ ,  $SE = .02$ , 95%

CI [-.10, -.03]. Parent social support mediated the association between relational victimization and academic achievement (GPA) among females.

Table 13

Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (GPA) through Parent Social Support for Males and Females

Gender	Effect	SE	95% CI	
			Lower	Upper
Males	-.03	.02	-.07	-.01
Females	-.05	.02	-.10	-.03

To test the model that social support from parents moderates the association between relational victimization and academic achievement (ISAT), a hierarchical multiple regression analysis was conducted. This was assessed using Model 3 in PROCESS. First, the overall model suggested that relational victimization, social support, and gender, together, accounted for a significant amount of variance of academic achievement using ISAT as the outcome variable,  $F(7, 424) = 4.50, p < .001, R^2 = .08$ . Second, the predictor variables and interactions were examined. Social support from parents was not a significant predictor of ISAT scores,  $b = .39, t(424) = .34, p = .73$ . Relational victimization was a significant predictor of ISAT scores,  $b = -5.59, t(424) = -4.46, p < .001$ ; higher relational victimization was associated with lower ISAT performance. The two-way interaction between relational victimization and parent social support predicting ISAT was not significant, suggesting that parent social support did not moderate the association between relational victimization and ISAT,  $b = -.11, t(424) = -.10, p =$



.92. Additionally, the three-way interaction between relational victimization, social support from parents, and gender predicting ISAT performance was also not significant, suggesting that there was not a significant difference in the moderation models between males and females,  $b = 1.18$ ,  $t(424) = .52$ ,  $p = .61$ .

To test the competing model that social support from parents mediates the effect of relational victimization on academic achievement using ISAT scores as an outcome variable, Model 8 in PROCESS was utilized. Model 8 is designed to examine how social support from parents effects the association between relational victimization on ISAT performance, as well as if the indirect effect is moderated by gender. In other words, does gender impact the mediation model? Results of the bootstrapping analysis with ISAT scores as the outcome, which are presented in Table 14, are as follows. First, the index of moderated mediation suggests that the indirect effect of relational victimization on ISAT performance through parent social support was not significant,  $b = -.06$ ,  $SE = .22$ , 95% CI [-.78, .24]; the mediation model did not significantly differ among males and females. Next, the conditional indirect effects were examined. The conditional indirect effect of relational victimization on ISAT performance through parent social support was not significant for males,  $b = -.08$ ,  $SE = .25$ , 95% CI [-.68, -.34]. Parent social support did not mediate the association between relational victimization and academic achievement (ISAT) among males. The conditional indirect effect of relational victimization on ISAT through parent social support as also nonsignificant among females,  $b = -.14$ ,  $SE = .45$ , 95% CI [-1.01, .63]. Parent social support did not mediate the association between relational victimization and academic achievement (ISAT) among females.

Table 14

Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (ISAT) through Parent Social Support for Males and Females

Gender	Effect	SE	95% CI	
			Lower	Upper
Males	-.08	.25	-.68	.34
Females	-.14	.41	-1.01	.63

To test the model that social support from teachers moderates the association between relational victimization and academic achievement using GPA as the outcome variable, a hierarchical multiple regression analysis was conducted. This was assessed using Model 3 in PROCESS. First, the overall model suggested that relational victimization, teacher social support, and gender, together, accounted for a significant amount of variance of academic achievement (GPA),  $F(7, 463) = 16.87, p < .001, R^2 = .17$ . Second, the predictor variables and interactions were examined. Social support from teachers was a significant predictor of GPA,  $b = .13, t(463) = 3.35, p < .001$ ; higher teacher social support was associated with higher GPA. Relational victimization was a significant predictor of GPA,  $b = -.24, t(463) = -5.33, p < .001$ ; higher relational victimization was associated with lower GPAs. The two-way interaction between relational victimization and teacher social support predicting GPA was not significant, suggesting that teacher social support did not moderate the association between relational victimization and GPA,  $b = .01, t(463) = .29, p = .77$ . Additionally, the three-way interaction between relational victimization, social support from teachers, and gender predicting GPA was

also not significant, suggesting that there was not a significant difference in the moderation models between males and females,  $b = -.05$ ,  $t(463) = -.75$ ,  $p = .45$ .

To test the competing model that social support from teachers mediates the effect of relational victimization on academic achievement using GPA as the outcome variable, Model 8 in PROCESS was utilized. Model 8 is designed to examine how social support from teachers effects the association between relational victimization and GPA, as well as if the indirect effect is moderated by gender. In other words, does gender impact the mediation model? Results of the bootstrapping analysis with GPA as the outcome variable, which are presented in Table 15, are as follows. First, the index of moderated mediation suggests that the indirect effect of relational victimization on GPA through teacher social support was not significant,  $b = -.02$ ,  $SE = .01$ , 95% CI [-.05, .01]; the mediation model did not significantly differ among males and females. Next, the conditional indirect effects were examined. The conditional indirect effect of relational victimization on GPA through teacher social support was not significant for males,  $b = -.02$ ,  $SE = .01$ , 95% CI [-.06, .00]. Teacher social support did not mediate the association between relational victimization and academic achievement (GPA) among males. However, the conditional indirect effect of relational victimization on GPA through teacher social support was significant among females,  $b = -.04$ ,  $SE = .01$ , 95% CI [-.07, -.02]. Teacher social support mediated the association between relational victimization and academic achievement (GPA) among females.

Table 15

Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (GPA) through Teacher Social Support for Males and Females

Gender	Effect	SE	95% CI	
			Lower	Upper
Males	-.02	.01	-.06	.00
Females	-.02	.01	-.07	-.02

To test the model that social support from teachers moderates the association between relational victimization and academic achievement using ISAT as the outcome variable, a hierarchical multiple regression analysis was conducted. This was assessed using Model 3 in PROCESS. First, the overall model suggested that relational victimization, teacher social support, and gender, together, accounted for a significant amount of variance of academic achievement (ISAT),  $F(7, 424) = 4.51, p < .001, R^2 = .08$ . Second, the predictor variables and interactions were examined. Social support from teachers was not a significant predictor of ISAT performance,  $b = .08, t(424) = .08, p = .94$ . Relational victimization was a significant predictor of ISAT performance,  $b = -5.76, t(424) = -4.86, p < .001$ ; higher relational victimization was associated with lower ISAT performance. The two-way interaction between relational victimization and social support from teachers predicting ISAT performance was not significant, suggesting that teacher social support did not moderate the association between relational victimization and ISAT performance,  $b = -.37, t(424) = -.41, p = .68$ . Additionally, the three-way interaction between relational victimization, social support from teachers, and gender predicting ISAT performance was also not significant, suggesting that there was not a significant difference in the moderation models between males and females,  $b = -.62, t(424) = -.33, p = .74$ .

To test the competing model that social support from teachers mediates the effect of relational victimization on academic achievement using ISAT scores as the outcome variable, Model 8 in PROCESS was utilized. Model 8 is designed to examine how social support from teachers effects the association between relational victimization and ISAT performance, as well as if the indirect effect is moderated by gender. In other words, does gender impact the mediation model? Results of the bootstrapping analysis with ISAT scores as the outcome variable, which are presented in Table 16, are as follows. First, the index of moderated mediation suggests that the indirect effect of relational victimization on ISAT performance through teacher social support was not significant,  $b = .00$ ,  $SE = .17$ , 95% CI [-.33, .39]; the mediation model did not significantly differ among males and females. Next, the conditional indirect effects were examined. The conditional indirect effect of relational victimization on ISAT through teacher social support was nonsignificant among males,  $b = .00$ ,  $SE = .22$ , 95% CI [-.46, .46]. Teacher social support did not mediate the association between relational victimization and academic achievement (ISAT) among males. The conditional indirect effect of relational victimization on ISAT through teacher social support is also not significant among females,  $b = -.01$ ,  $SE = .32$ , 95% CI [-.62, .67]. Teacher social support did not mediate the association between relational victimization and academic achievement (ISAT) among females.

Table 16

Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (ISAT) through Teacher Social Support for Males and Females

Gender	Effect	SE	95% CI	
			Lower	Upper
Males	.00	.22	-.46	.46

Females	.01	.32	-.62	.67
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To test the model that social support from classmates moderates the association between relational victimization and academic achievement using GPA as the outcome variable, a hierarchical multiple regression analysis was conducted. This was assessed using Model 3 in PROCESS. First, the overall model suggested that relational victimization, classmate social support, and gender, together, accounted for a significant amount of variance of academic achievement (GPA),  $F(7, 463) = 13.89, p < .001, R^2 = .16$ . Second, the predictor variables and interactions were examined. Social support from classmates was not a significant predictor of GPA,  $b = -.03, t(463) = -.86, p = .39$ . Relational victimization was a significant predictor of GPA,  $b = -.29, t(463) = -6.49, p < .001$ ; higher relational victimization was associated with lower GPAs. The two-way interaction between relational victimization and classmate social support predicting GPA was not significant, suggesting that classmate social support did not moderate the association between relational victimization and GPA,  $b = .05, t(463) = 1.50, p = .13$ . Additionally, the three-way interaction between relational victimization, social support from classmates, and gender predicting GPA was also not significant, suggesting that there was not a significant difference in the moderation models between males and females,  $b = -.13, t(463) = -1.84, p = .07$ . The overall models were not significant. However, the conditional effect of relational victimization by classmate social support was significant for males,  $b = .12, t(463) = 2.26, p = .02$ , but not for females,  $b = -.01, t(463) = -.19, p = .85$ . Males with lower classmate support and lower relational victimization performed higher than males with higher classmate support and lower relational victimization. However, males with higher classmate support and

higher relational victimization performed higher than males with lower classmate support and higher relational victimization (see Figure 5 below).

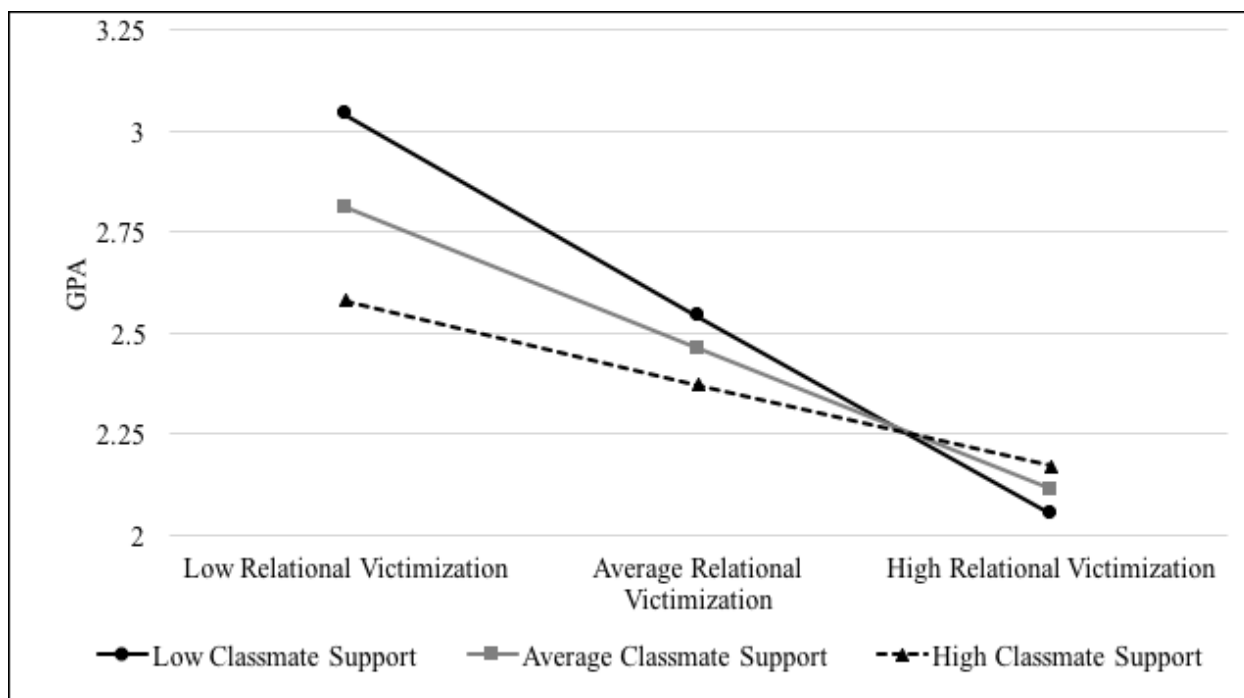


Figure 5. Relational victimization differences in the association between classmate social support and GPA among males. Classmate social support has a mean of 0 and a standard deviation of 1.16. Low and high represent 1 SD below and above the mean. All regressions were significantly different from zero,  $p < .05$ .

To test the competing model that social support from classmates mediates the effect of relational victimization on academic achievement using GPA as the outcome variable, Model 8 in PROCESS was utilized. Model 8 is designed to examine how social support from classmates effects the association between relational victimization on GPA, as well as if the indirect effect is moderated by gender. In other words, does gender impact the mediation model? Results of the

bootstrapping analysis with GPA as the outcome variable, which are presented in Table 17, are as follows. First, the index of moderated mediation suggests that the indirect effect of relational victimization on GPA through classmate social support was not significant,  $b = .01$ ,  $SE = .01$ , 95% CI [-.01, .03]; the mediation model did not significantly differ among males and females. Next, the conditional indirect effects were examined. The conditional indirect effect of relational victimization on GPA through classmate social support was not significant among males,  $b = .00$ ,  $SE = .01$ , 95% CI [-.01, .02]. Classmate social support did not mediate the association between relational victimization and academic achievement (GPA) among males. The conditional indirect effect of relational victimization on GPA through classmate social support was also not significant among females,  $b = .01$ ,  $SE = .02$ , 95% CI [-.02, .04]. Classmate social support did not mediate the association between relational victimization and academic achievement (GPA) among females.

Table 17

Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (GPA) through Classmate Social Support for Males and Females

Gender	Effect	SE	95% CI
--------	--------	----	--------



			Lower	Upper
Males	.00	.01	-.01	.02
Females	.01	.02	-.02	.04

To test the model that social support from classmates moderates the association between relational victimization and academic achievement using ISAT scores as the outcome variable, a hierarchical multiple regression analysis was conducted. This was assessed using Model 3 in PROCESS. First, the overall model suggested that relational victimization, classmate social support, and gender, together, accounted for a significant amount of variance of academic achievement (ISAT),  $F(7, 424) = 6.78, p < .001, R^2 = .11$ . Second, the predictor variables and interactions were examined. Social support from classmates was a significant predictor of ISAT performance,  $b = -3.45, t(424) = -3.78, p < .001$ ; higher classmate support was associated with lower ISAT performance. Relational victimization was a significant predictor of ISAT performance,  $b = -6.74, t(424) = -5.46, p < .001$ ; higher relational victimization was associated with lower ISAT performance. The two-way interaction between relational victimization and classmate social support predicting ISAT was not significant, suggesting that classmate social support did not moderate the association between relational victimization and ISAT performance,  $b = -.15, t(424) = -.16, p = .87$ . Additionally, the three-way interaction between relational victimization, social support from classmates, and gender predicting ISAT was also not significant, suggesting that there was not a significant difference in the moderation models between males and females,  $b = .04, t(424) = .02, p = .98$ .

To test the competing model that social support from classmates mediates the effect of relational victimization on academic achievement using ISAT scores as the outcome variable, Model 8 in PROCESS was utilized. Model 8 is designed to examine how social support from classmates effects the association between relational victimization on ISAT, as well as if the indirect effect is moderated by gender. In other words, does gender impact the mediation model? Results of the bootstrapping analysis with ISAT as the outcome variable, which are presented in Table 18, are as follows. First, the index of moderated mediation suggests that the indirect effect of relational victimization on ISAT through classmate social support was significant,  $b = 1.03$ ,  $SE = .54$ , 95% CI [.20, 2.40]; the mediation model did differ significantly among males and females. Next, the conditional indirect effects were examined. The conditional indirect effect of relational victimization on ISAT performance through classmate social support was not significant for males,  $b = .44$ ,  $SE = .33$ , 95% CI [-.08, 1.24]. Classmate social support did not mediate the association between relational victimization and academic achievement (ISAT) among males. However, the conditional indirect effect of relational victimization on ISAT through classmate social support was significant among females,  $b = 1.47$ ,  $SE = .50$ , 95% CI [.68, 2.66]. Classmate social support did mediate the association between relational victimization and academic achievement (ISAT) among females.

Table 18

Moderated Mediation: Conditional Indirect Effects of Relational Victimization on Academic Achievement (ISAT) through Classmate Social Support for Males and Females

Gender	Effect	SE	95% CI	
			Lower	Upper
Males	.44	.33	-.08	1.24
Females	1.47	.50	.68	2.66

Exploratory Analyses: Associations between Social Support, Depression, Relational Victimization, and Academic Achievement

An additional exploratory analysis was conducted using the PROCESS macro for SPSS. PROCESS was written by Andrew F. Hayes and is available as an add-on for SPSS. It uses an ordinary least squares or logistic regression-based path analytic framework for estimating direct and indirect effects based on a number of various mediation/moderation models. The additional analyses were conducted because depression significantly mediated the association between relational victimization and GPA among females. Additionally, social support from parents and social support from teachers among females significantly mediated the association between relational victimization and GPA. The current exploratory examined these significant mediation models within a multiple mediation model.

The first analyses examined was a parallel multiple mediator model. A parallel multiple mediator model suggests that relational victimization is associated with academic achievement (GPA) directly, as well as indirectly through social support and depression (see Figure 6). However, in this model, there is an assumption of no causal association between the two

mediators; it is rejected outright a priori. Linear regressions examined whether the mediators (depression and social support) casually influence another. A linear regression established that parent support could statistically significantly predict depression among females,  $F(1, 247) = 35.57, p < .001$  and teacher support accounted for 12.2% of the explained variability in depression. Additionally, a linear regression established that teacher support could statistically significantly predict depression among females,  $F(1, 247) = 113.66, p < .001$  and parent support accounted for 31.2% of the explained variability in depression. Therefore, a parallel multiple mediator model could not be used to explain the association between relational victimization, social support, depression, and academic achievement (GPA).

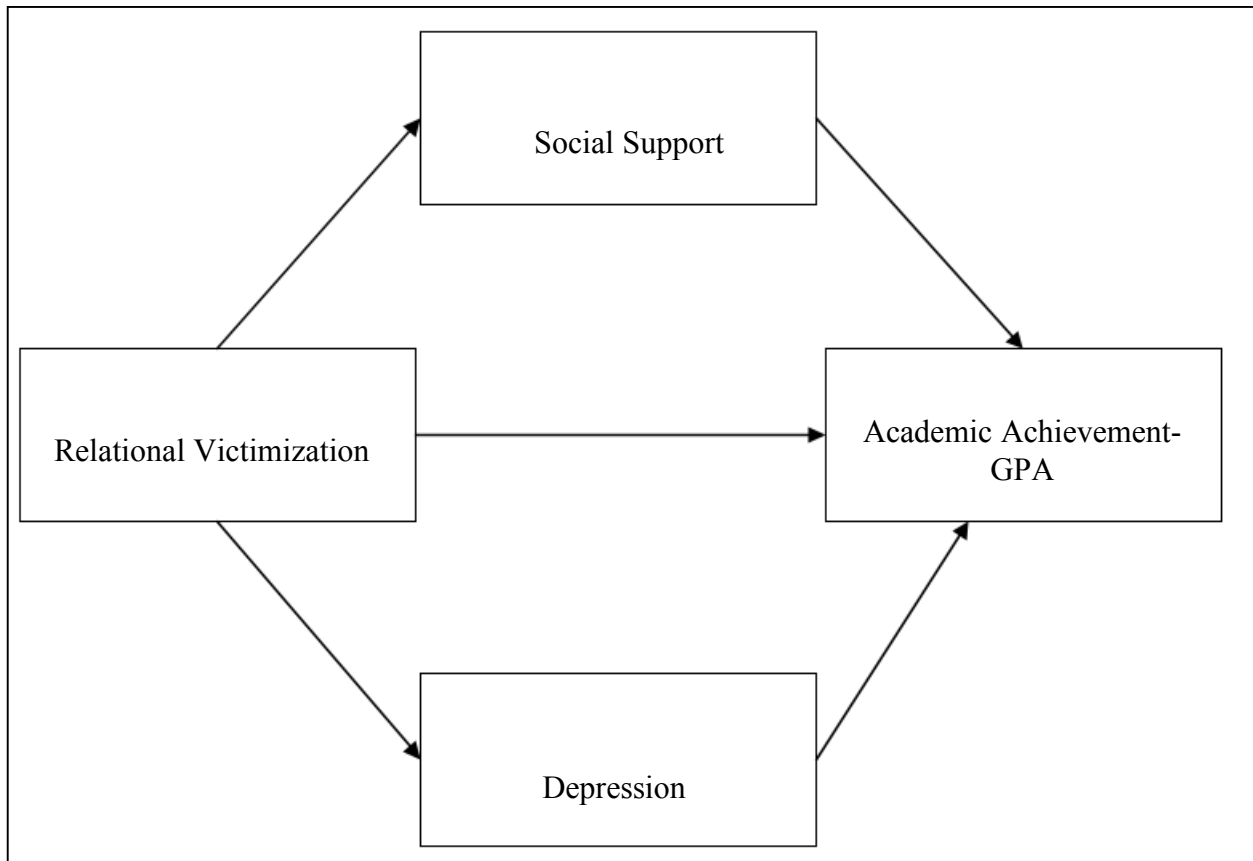


Figure 6. A parallel multiple mediator model where relational victimization is associated with academic achievement (GPA) directly, as well as indirectly through social support and depression.

When two mediators in a multiple mediator model are causally influencing another or are correlated, it may suggest that one mediator affects another. As previously mentioned, linear regressions suggested that parent and teacher support significantly accounted for a proportion of variance of depression. Thus, a serial multiple mediation model was then examined to investigate whether parent support and depression, in sequence, significantly mediates the association between relational victimization and academic achievement (GPA). Because social support that was measured in the current study evaluated the perception of available support,

theoretically, students could perceive less support when being victimized due to feeling targeted thus isolated.

The first serial multiple mediation model (Hayes, 2013, PROCESS Model 6), examined the degree to which parent support and depression, together, mediated the effects of relational victimization on academic achievement (GPA). All paths for the full model are illustrated in Figure 7 and their corresponding coefficients are provided in Table 19. The total effect ( $c$ ) of relational victimization on academic achievement (GPA) was significant ( $\beta = -.23, t = -4.06, p < .001$ ). The specific indirect effect through social support from parents was significant ( $a_1b_1 = -.05; CI = -.12 \text{ to } -.01$ ). The specific indirect effect through depression was not significant ( $a_2b_2 = -.03, CI = -.10 \text{ to } .04$ ). When testing serial multiple mediation, the specific indirect of relational victimization on academic achievement through parent support then depression was not significant ( $a_1d_2b_2 = -.01, CI = -.03 \text{ to } .01$ ); parent support and depression, together, did not mediate the association between relational victimization and academic achievement.

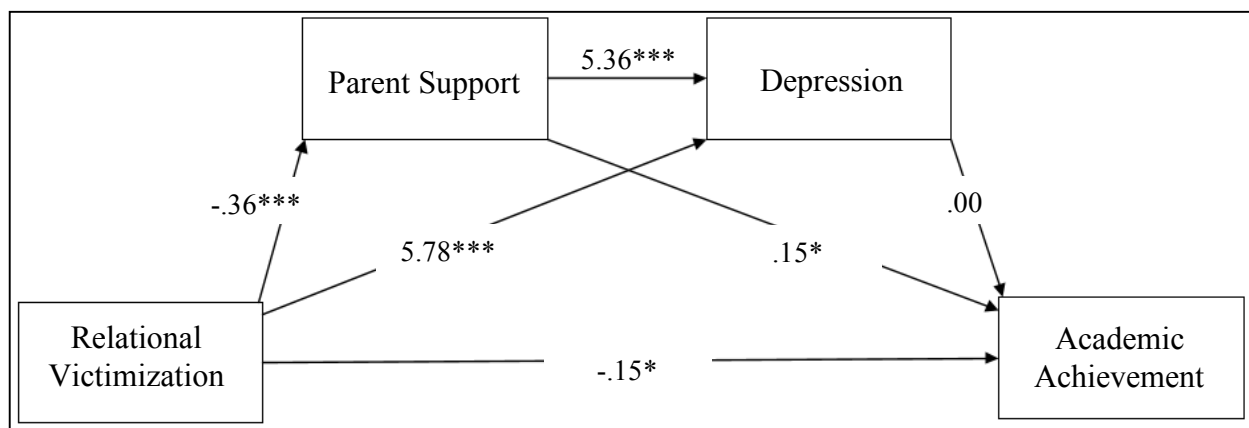


Figure 7. Serial multiple mediation model with parent social support and depression, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 19

Serial Multiple Mediation Analyses for Social Support from Parents and Depression as Proposed Mediators of Relational Victimization on Academic Achievement (GPA) among Females

Antecedent	Consequent											
	$M_1$ (SS-P)			$M_2$ (DEP)			Y (GPA)					
	Coeff.	SE	<i>p</i>	Coeff.	SE	<i>p</i>	Coeff.	SE	<i>p</i>			
<i>Males</i>												
<i>X</i> (RV)	$a_1$	-0.36	.08	< .001	$a_2$	5.78	.78	< .001	$c'$	-0.15	.07	.03
$M_1$ (SS-P)	---	---	---	$d_{21}$	-5.36	.71	< .001	$b_1$	.15	.07	.03	
$M_2$ (DEP)	---	---	---	---	---	---	---	$b_2$	.00	.01	.42	
Constant	$i_{M1}$	5.19	.18	< .001	$i_{M2}$	65.44	4.37	< .001	$i_Y$	2.90	.52	< .001
		$R^2 = .10$				$R^2 = .47$				$R^2 = .12$		
		$F(1, 247) = 19.83, p < .001$				$F(2, 246) = 131.86, p < .001$				$F(3, 245) = 10.31, p < .001$		

Note. RV = Relational Victimization; SS-P = Parent Social Support; DEP = Depression.

The specific indirect effect of relational victimization, through parent support, on academic achievement was significant. The specific indirect effect of relational victimization, through depression, on academic achievement was not significant. Additionally, the specific indirect effect of relational victimization, through parent support and depression, on academic achievement was not significant. The result led to the question whether or not depression should be conceptualized as the first mediator and parent support as the second mediator. Thus, a second serial multiple mediation model was examined.

The second serial multiple mediation model examined the degree to which depression and parent support, in sequence, mediated the effects of relational victimization on academic achievement (GPA). All paths for the full process model are illustrated in Figure 8 and their

corresponding coefficients are provided in Table 20. The total effect ( $c$ ) of relational victimization on academic achievement (GPA) was significant ( $\beta = -.23, t = -4.06, p < .001$ ). The specific indirect effect through depression was not significant ( $a_1b_1 = -.04$ ; CI =  $-.13$  to  $.05$ ). The specific indirect effect through parent support was not significant ( $a_2b_2 = .00$ , CI =  $-.03$  to  $.02$ ). When testing serial multiple mediation, the specific indirect of relational victimization on academic achievement through both parent support and depression was significant ( $a_1d_2b_2 = -.05$ , CI =  $-.11$  to  $-.01$ ). Relational victimization does influence female students' GPA. However, this influence is mediated by depression and parent support, in sequence. Relational victimization led to depression, which predicted lower levels of perceived social support from parents, which led to lower levels of academic achievement (GPA).

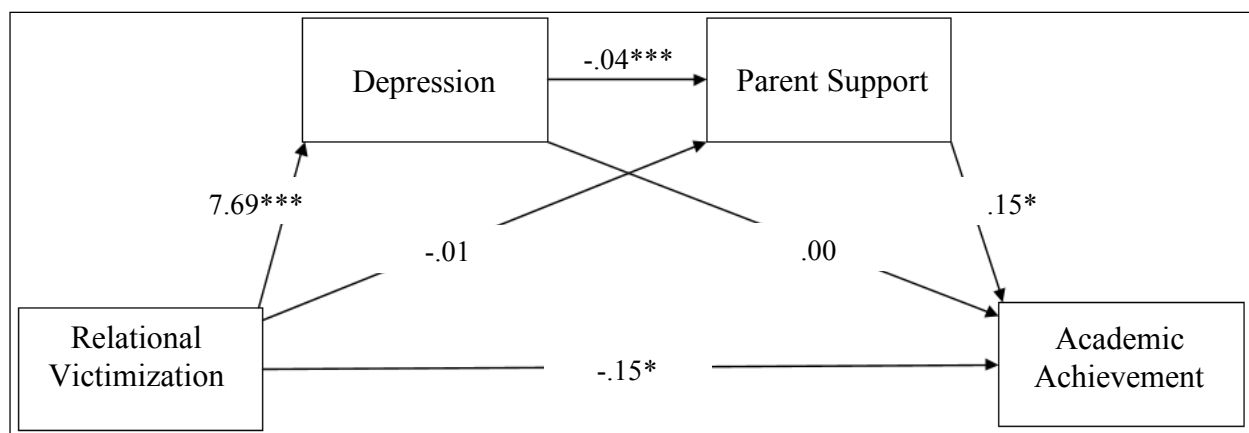


Figure 8. Serial multiple mediation model with depression and parent social support, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.

Note.  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$ .



Table 20

Serial Multiple Mediation Analyses for Depression and Social Support from Parents as Proposed Mediators of Relational Victimization on Academic Achievement (GPA) among Females

Antecedent	Consequent											
	$M_1$ (DEP)			$M_2$ (SS-P)			Y (GPA)					
	Coeff.	SE	<i>p</i>	Coeff.	SE	<i>p</i>	Coeff.	SE	<i>p</i>			
<i>Males</i>												
<i>X</i> (RV)	$a_1$	7.69	.88	< .001	$a_2$	-.01	.08	.88	$c'$	-.15	.07	.03
$M_1$ (DEP)	---	---	---		$d_{21}$	-.04	.01	< .001	$b_1$	.00	.01	.42
$M_2$ (SS-P)	---	---	---		---	---	---		$b_2$	.15	.07	.03
Constant	$i_{M1}$	37.65	1.84	< .001	$i_{M2}$	6.88	.24	< .001	$i_Y$	2.90	.52	< .001
		$R^2 = .30$				$R^2 = .32$				$R^2 = .12$		
		$F(1, 247) = 75.97, p < .001$				$F(2, 246) = 51.58, p < .001$				$F(3, 245) = 10.31, p < .001$		

Note. RV = Relational Victimization; SS-P = Parent Social Support; DEP = Depression.

The third serial multiple mediation model examined the degree to which teacher support and depression mediated the effects of relational victimization on academic achievement (GPA). All paths for the full process model are illustrated in Figure 9 and their corresponding coefficients are provided in Table 21. The total effect ( $c$ ) of relational victimization on academic achievement (GPA) was significant ( $\beta = -.23, t = -4.06, p < .001$ ). The specific indirect effect through social support from teachers was significant ( $a_1b_1 = -.04$ ; CI =  $-.09$  to  $-.01$ ). The specific indirect effect through depression was not significant ( $a_2b_2 = -.06$ , CI =  $-.14$  to  $.01$ ). When testing serial multiple mediation, the specific indirect of relational victimization on academic achievement through both depression and teacher support was not significant ( $a_1d_{21}b_2 = -.01$ , CI

= -.02 to .00); relational victimization is not indirectly associated with academic achievement though casually linked mediators of depression and social support from teachers.

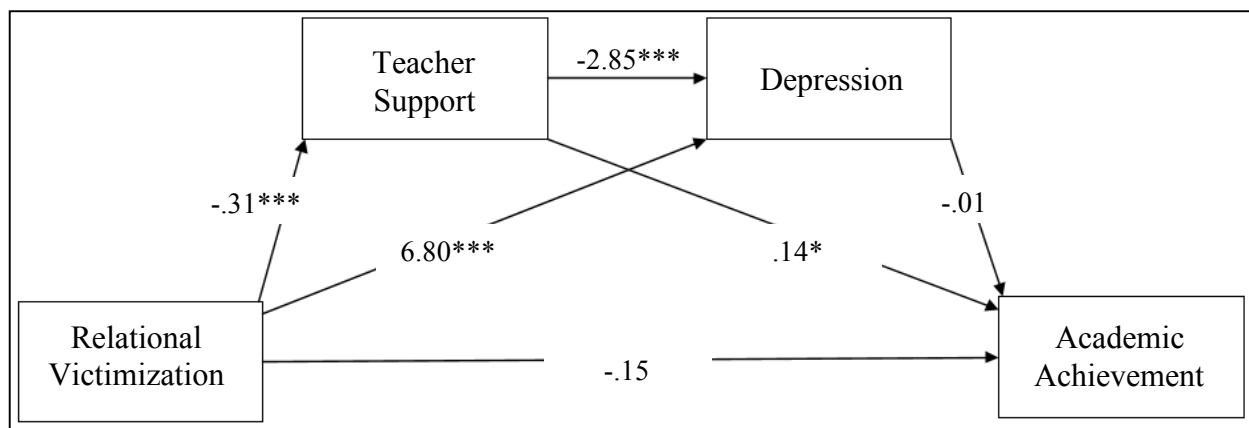


Figure 9. Serial multiple mediation model with teacher social support and depression, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 21

Serial Multiple Mediation Analyses for Social Support from Teachers and Depression as Proposed Mediators of Relational Victimization on Academic Achievement (GPA) among Females

Antecedent	Consequent											
	$M_1$ (SS-T)			$M_2$ (DEP)			Y (GPA)					
	Coeff.	SE	p	Coeff.	SE	p	Coeff.	SE	p			
<i>Males</i>												
X (RV)	$a_1$	-.31	.07	< .001	$a_2$	6.80	.92	< .001	$c'$	-.13	.07	.06
$M_1$ (SS-T)	---	---	---	$d_{21}$	-2.85	.93	< .001	$b_1$	.14	.06	.02	
$M_2$ (DEP)	---	---	---	---	---	---	---	$b_2$	-.01	.01	.09	

Constant	$i_{M1}$	5.16	.16	< .001	$i_{M2}$	52.35	5.21	< .001	$i_Y$	3.10	.42	< .001
		$R^2 = .09$				$R^2 = .34$				$R^2 = .11$		
		$F(1, 247) = 18.28, p < .001$				$F(2, 246) = 45.33, p < .001$				$F(3, 245) = 10.48, p < .001$		

*Note.* RV = Relational Victimization; SS-T = Teacher Social Support; DEP = Depression.

The specific indirect effect of relational victimization, through teacher support, on academic achievement was significant. The specific indirect effect of relational victimization, through depression, on academic achievement was not significant. Additionally, the specific indirect effect of relational victimization, through parent support and depression, on academic achievement was not significant. The result led to the question whether or not depression should be conceptualized as the first mediator and parent support as the second mediator. Thus, a fourth serial multiple mediation model was examined.

The fourth serial multiple mediation model examined the degree to which depression and teacher support, in sequence, mediated the effects of relational victimization on academic achievement (GPA). All paths for the full process model are illustrated in Figure 14 and their corresponding coefficients are provided in Table 22. The total effect ( $c$ ) of relational victimization on academic achievement (GPA) was significant ( $\beta = -.23, t = -4.06, p < .001$ ). The specific indirect effect through depression was not significant ( $a_1b_1 = -.07$ ; CI =  $-.15$  to  $.01$ ). The specific indirect effect through teacher support was not significant ( $a_2b_2 = -.02$ , CI =  $-.07$  to  $.00$ ). When testing serial multiple mediation, the specific indirect of relational victimization on academic achievement through depression and teacher support, in sequence, was not significant ( $a_1d_2b_2 = -.02$ , CI =  $-.05$  to  $-.00$ ), relational victimization is not indirectly associated with

academic achievement though casually linked multiple mediators of depression and social support from teachers.

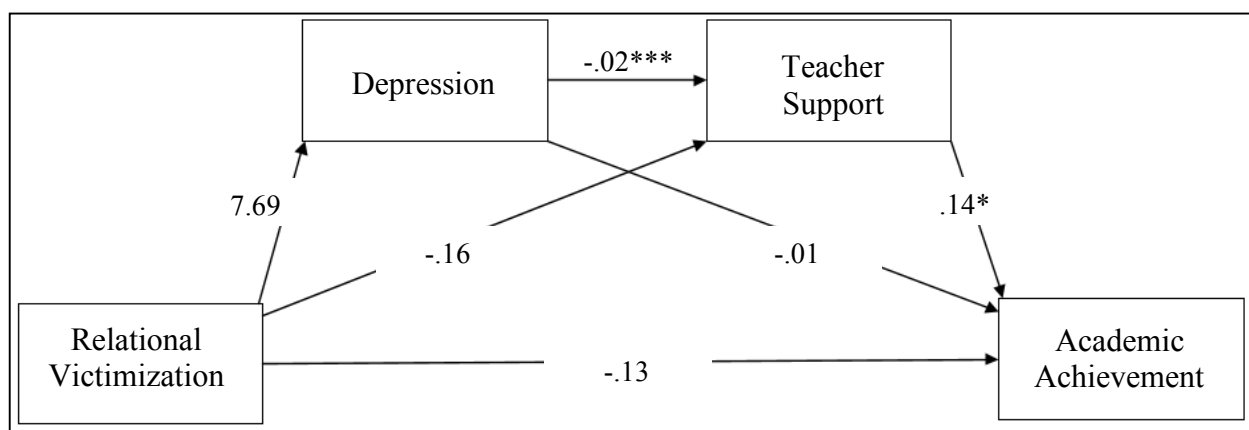


Figure 10. Serial multiple mediation model with depression and teacher social support, in sequence, mediates the effects of relational victimization on academic achievement (GPA) among females.

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 22

Serial Multiple Mediation Analyses for Depression and Social Support from Teachers as Proposed Mediators of Relational Victimization on Academic Achievement (GPA) among Females

	Consequent	
	$M_2$ (SS-T)	$Y$ (GPA)
$M_1$ (DEP)		

Antecedent		Coeff.	SE	<i>p</i>		Coeff.	SE	<i>p</i>		Coeff.	SE	<i>p</i>
<i>Males</i>												
<i>X</i> (RV)	<i>a</i> <sub>1</sub>	7.69	.77	< .001	<i>a</i> <sub>2</sub>	-.16	.10	.11	<i>c</i> '	-.13	.07	.06
<i>M</i> <sub>1</sub> (DEP)		---	---	---	<i>d</i> <sub>21</sub>	-.02	.01	< .001	<i>b</i> <sub>1</sub>	-.01	.01	.09
<i>M</i> <sub>2</sub> (SS-T)		---	---	---		---	---	---	<i>b</i> <sub>2</sub>	.14	.06	.02
Constant	<i>i</i> <sub>M1</sub>	37.65	1.84	< .001	<i>i</i> <sub>M2</sub>	5.91	.25	< .001	<i>i</i> <sub>Y</sub>	3.10	.42	< .001
		$R^2 = .30$				$R^2 = .14$				$R^2 = .11$		
		$F(1, 247) = 75.97, p < .001$				$F(2, 246) = 18.47, p < .001$				$F(3, 245) = 10.48, p < .001$		

Note. RV = Relational Victimization; SS-T = Teacher Social Support; DEP = Depression.

## CHAPTER 5

### DISCUSSION

Relational aggression is a form of aggression that has received an increasing amount of attention in recent literature. Relational aggression is the intentional behavior that damages friendships or restricts involvement in a social group (Grotperter & Crick, 1996). Relational victimization is the experience of being a target of relational aggression. Although there is an increase in literature about aggression, less is known about relational victimization. The purpose of this study was to examine factors associated with both academic achievement and relational victimization.

The current study investigated a hypothesis that relational victimization operates as a stressor on students' emotional and cognitive resources that interferes with their ability to cope with or engage in the demands of school; this hypothesis is known as the emotional difficulties hypothesis. It was hypothesized that depression is the link that explains how relational victimization is associated with academic achievement. Current literature suggests that students who report higher levels of depression perform worse academically than students with lower levels of depression (Al-Qaisy, 2011; Aluja & Blanch, 2002; Aluja & Blanch, 2004; Försterling, & Binser, 2002; Glew, Fan, Katon, Rivara, & Kernic, 2005; Lucier-Greer et al., 2014; Roeser, Eccles, Strobel, 1998; Yousefi, et al., 2010). Literature has also found evidence that depression mediates the association between victimization and academic achievement (Espinoza, Gonzales,

& Fuligni, 2013). However, there is limited research on how depression effects that association between, specifically, relational victimization and academic outcomes.

The current study also investigated protective factors, specifically social support, that may impact the association between relational victimization and academic achievement. Social support refers to the perception of having support available and has been found to buffer against adverse life effects (Demaray & Malecki, 2003). However, there is limited research that supports the hypothesis that social support buffers the association between relational victimization and academic achievement; the literature does suggest that victimized adolescents have poorer academic adjustment and social support appears to have a positive effect on academic adjustment (Galand & Hospel, 2013; Rothon et al., 2011; Wang, Iannotti, & Luk, 2011).

In addition to examining how depression and social support may impact the association between relational victimization and academic achievement independently, the current study examined how depression and social support, together, may influence the nature of the association. No literature to date has examined how depression and social support, together, impact the association between relational victimization and academic achievement. The current study aimed to provide a better understanding of the outcomes of relational victimization in the school context.

#### Relational Victimization and Depression to Academic Achievement

One of the goals in the current study was to examine how depression may impact the association between relational victimization and academic achievement. Previous literature has suggested that depression influences the association of victimization with academic achievement (Espinoza, Gonzales, & Fuligini, 2013; Galand & Hospel, 2013; Holt, Finkelhor, & Kantor, 2007; Juvonen, Nishina, & Graham, 2000; Rueger & Jenkins, 2014; Schwartz, Gorman, Nakamoto, & Toblin, 2005; Tortura, Karver, & Gesten, 2014). The emotional difficulties hypothesis suggests that depression drains off attentional and motivational resources, and in turn, negatively impacts academic achievement. Due to the hypothesis that depression might explain why there is an association between relational victimization and academic achievement, moderation was not predicted in the case of depression, relational victimization, and academic achievement. In other words, depression would not change the effect of relational victimization on academic achievement. As expected, moderation was not found; the association between relational victimization and academic achievement was not stronger for students experiencing higher levels of depression. This was found among both males and females for both GPA and ISAT. A moderation model would have suggested that depression and relational victimization would interact in their effects on academic achievement; however, they are both predictor variables and there was not a real distinction between the role of depression and relational victimization. Therefore, depression did not moderate the association between relational victimization on academic achievement; this is consistent with the emotional difficulties hypothesis suggesting that relationally victimized students experience higher levels of depression, which in turn negatively impacts their ability to perform well academically.



However, it was found that depression mediated the association between victimization and academic achievement, specifically GPA. In other words, depression explained why there is an association between relational victimization and academic achievement. It was expected that students who are being relationally victimized experience higher levels of depression, which in turn drains their motivational and attentional resources to perform well academically. This is consistent with the emotional difficulties hypothesis. It was also expected that this association would be stronger for females than males because previous research had found that females experience higher levels of depression following victimization than males and that the association of depression on victimization and academic achievement is stronger for females than males (Hoglund, 2007; Rueger & Jenkins, 2014; Tortura et al., 2014). The associations between depression, relational victimization, and academic achievement did not function differently for males and females; depression among males and females mediated the association between relational victimization and GPA. These findings have significant implications for educators to understand the consequences of being relationally victimized, as well as highlighting the importance for educators to intervene when students are relationally victimized to minimize adverse outcomes. Thus, education about the negative effects of relational aggression may be warranted.

The mediation and moderation models were not significant when using the ISAT reading scores as an indicator of academic achievement. The ISAT is a standardized achievement test that measures academic skills at one point of time, whereas GPAs take into account multiple scores such as tests and homework completion. GPAs not only measure homework accuracy, but homework completion as well. GPAs can be impacted by school attendance because it may

be difficult to receive full credit on homework and tests when students are not present to turn in homework or miss instruction. GPAs measure various types of student assessments, such as multiple choice, group projects, or written responses; the different types of assessments provide students greater opportunity to display their academic skills through different means of assessment. Therefore, ISAT scores may not be associated with relational victimization or depression because it does not measure the day to day school functioning whereas GPAs is impacted by the daily stressors of students.

#### Relational Victimization and Social Support to Academic Achievement

The second goal in the current study was to examine how social support might impact the association between relational victimization and academic achievement. Previous literature has suggested that social support can buffer against adverse life effects (Demaray & Malecki, 2003). As such, it was hypothesized that social support could buffer against the adverse effects of relational victimization. Additionally, social support has been positively associated with academic outcomes (Demaray & Malecki, 2002; Rueger, Malecki, & Demaray, 2010; Song et al., 2014). However, there is limited literature that examines how social support impacts the specific association between relational victimization and academic outcomes. Only a few studies examined the associations between social support, relational victimization, and academic outcomes; although these studies did not find evidence that social support moderated the effects of victimization on academic outcomes, these studies did suggest that social support was a useful resource for all students and associated with greater academic adjustment than students

perceiving less amounts of support (Galand & Hospel, 2013; Rothon et al., 2011; Wang, Iannotti, & Luk, 2011).

Despite the limited research, it was expected that social support would buffer the effects of relational victimization on academic achievement. According to the stress-buffering hypothesis, it was expected that students that perceived to have social support from others would interpret relational victimization differently than students that did not perceive higher levels of social support. The social support would then serve as a coping mechanism that would buffer against poor academic outcomes. Thus, stronger evidence was expected for moderation than for mediation. Although social support from parents, teachers, and classmates have been found to be positively associated with academic achievement (Ahmed, Minnart, Van Der Werf, & Kuyper, 2010; Demaray & Malecki, 2002; Demaray & Malecki, 2002; Malecki & Demaray, 2006; Malecki & Elliott, 1999; Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015; Wang, Iannotti, & Luk, 2011), it was also expected that the effect of social support on the association between relational victimization and academic achievement would differ by source of support. More specifically and consistent with previous literature, it was expected that parent support would have the greatest influence on academic achievement above other sources of support (Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015). It was expected that this association would be similar for both males and females (Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015). However, it was also expected that the effect of social support would predict more outcomes for females than males for teacher support (Rueger et al., 2010) and classmate support (Rueger et al., 2010).

However, this hypothesis was not supported; moderation was not found. The association between relational victimization and academic achievement did not significantly change when students experience high or low levels of social support from parents, teachers, or classmates. This was found for both males and females and for both GPA and ISAT. Overall, students with low levels of perceived relational victimization performed higher academically than students that perceived high levels of relational victimization. Social support from parents, teachers, and classmates did not buffer the effect of relational victimization on academic achievement; in other words, those who perceived high levels of support and high levels of relational victimization did not perform significantly higher academically than students with low levels of support.

However, there was one exception to these findings. Classmate social support moderated the effect of relational victimization on GPA for males. This finding was interesting. As expected, students with less relational victimization also performed higher academically than students with high levels of relational victimization. However, when students perceived low levels of relational victimization, students with low amounts of perceived classmate support performed higher academically than students that perceived high amount of classmate support. This pattern flipped when students perceived high levels of relational victimization. Students with high classmate support tended to have higher academic achievement than students that perceived lower levels of support. These findings may suggest that classmate social support may not be associated with academic achievement unless social support is sought out during adverse life events. When males are being relationally victimized, their perception of social support buffers against the adverse effects of being victimized. In addition to these findings, there was much variability in GPA when students perceived low levels of relational victimization.

However, at high levels of victimization, there was much less variability in GPA. These findings may suggest that relational victimization is associated with students' academic performance and social support may only buffer some of this impact.

The hypothesis that there would be stronger evidence of moderation than mediation when examining the role of social support in the association between relational victimization and academic achievement was also not supported. In fact, there was evidence that parent support mediated the effects of relational victimization on academic achievement when examining GPA. This was found in both males and females, but not within the male sample, which is consistent with previous findings that parent support continues to have the greatest influence on all students (Rueger, Malecki, & Demaray, 2010; Song, Bong, Lee, & Kim, 2015). Mediators, theoretically, establish "how" or "why" one variable predicts or causes an outcome variable. In this case, parent support partially explains the relation between relational victimization and academic achievement (GPA). When students feel victimized, social support from their parents may serve as a coping mechanism, which is associated with academic achievement.

Mediation was also found among females when examining teacher support. Teacher support partially explains the association between relational victimization and academic achievement (GPA). When females feel victimized, social support from their teachers may also serve as a coping mechanism, which is associated with academic achievement. The finding that teacher support partially mediated the association between relational victimization and academic achievement for females but not for males is also consistent with previous literature; social support from teachers predicted more outcomes for females than for males and social support from teachers is associated with academic achievement for females but not for males (Rueger,

Malecki, & Demaray, 2010). These findings may suggest that in time of need, females turn to their teachers for support, whereas males may not.

Mediation was also found among females when examining classmate support. Classmate support partially explains the association between relational victimization and academic achievement (ISAT). This finding is interesting because ISAT is a standardized achievement test that measures reading at one point of time, whereas GPAs measure more of the day to day functioning. This significant finding may suggest that relationally victimized females may have lasting effects, depending on their perceptions of available classmate support.

These findings suggest that, overall, social support from parents, teachers, and classmates explains the effect of relational victimization on academic achievement for females, but not for males. However, parent support does explain the effect of relational victimization on academic achievement for males. It could be hypothesized that depending on students' perception of support, that support can impact how they respond to being relationally victimized. One question emerges from this finding. Why did social support explain the association between relational victimization and academic achievement? It could be that females seek out more support in times of need or social support from adults, whereas social support may not be a coping mechanism for males. Further research could also examine not only the perception of social support, but also the importance of social support. It could be that males do not find it important to feel supported or perhaps the way that social support is measured does not capture how males get support from others most effectively. In all, these findings contradict previous literature investigated the stress-buffering theory in which social support is found to buffer against adverse life events. This study provides evidence that social support established the

“how” or “why” the association between relational victimization and academic achievement occurs, rather than the “when” or “for whom.”

### Relational Victimization, Depression, and Social Support to Academic Achievement

In order to understand the association between relational victimization, social support, depression, and academic achievement, additional exploratory analyses were conducted. The exploratory analyses were conducted within the female sample investigating relational victimization, depression, parent support, teacher support, and GPA. These variables were examined because there was evidence that depression, parent social, and teacher support partially mediated the effect of relational victimization on GPA. The first model that was examined was a parallel multiple mediator model; however, due to the casual association between both mediators (depression and social support), this model was rejected. The next model was a serial multiple mediation model that examined whether depression and parent support, sequentially, mediates the association between relational victimization.

Four serial multiple mediation models were run. Two models investigated parent social support and two models investigated teacher social support. Within the first set of models investigating parent social support among females, it was found that parent social support and depression, in sequence, mediates the effects of relational victimization on academic achievement (GPA). However, it was found that relational victimization is positively associated with depression, which in turn is negatively associated with parent social support, thus impacting academic achievement. Therefore, the results suggest that when females are relationally

victimized, they may experience higher levels of depression. Depression was negatively associated with parental support; higher levels of depression was associated with low levels of perceived support or lower levels of depression was associated with higher levels of perceived support. Finally, parent support was positively associated with academic achievement. Within this model, relational victimization was associated with depression, which was associated with perceived social support from parents, which was finally associated with academic achievement. This evidence furthers our understanding on which variables, together and in what sequence, may impact the association between relational victimization and academic achievement. To date, more complex analyses with combined variables impacting the association between relational victimization and academic achievement have not been examined.

The second set of models investigated teacher social support among females and found that teacher support and depression, in sequence, did not explain the effect of relational victimization on academic achievement. These findings suggest that depression and teacher support partially explain the association of relational victimization with academic achievement. However, these two models together do not explain this relationship. There was evidence that females perceived lower levels of social support from teachers when relationally victimized, which was associated with higher levels of depression. However, these associations do not explain why relational victimization is associated with poorer academic outcomes.

### General Summary and Implications



One of the main objectives of the study was to investigate what factors impact or explain the association between relational victimization on academic achievement among middle school students. This was achieved using extant data that contained 477 middle school students. Social support was assessed using the Child and Adolescent Social Support Scale (CASSS; Malecki et al., 2000), depression was assessed using the Behavior Assessment Scale for Children, Self-Report of Personality (BASC-2; Reynolds & Kamphaus, 2004), relational victimization was assessed using the Children’s Social Experience Questionnaire—Self Report (CSEQ-SR; Crick & Grotpeter, 1996), and academic achievement was assessed using both GPAs and Illinois Standards Achievement Test (ISAT; Illinois State Board of Education Division of Assessment, 2010) scaled scores.

The first main objective of this study was to understand the role of depression in the association between relational victimization and academic achievement. Using the emotional difficulties hypothesis, it was hypothesized that relationally victimized students experience higher levels of depression, in turn drains off their attentional and motivational resources, impacting their academic achievement. The emotional difficulties hypothesis was supported examining depression among both males and females. See Figure 15 below for significant findings of depression as a moderator or a mediator.

	GPA		ISAT	
	Mediation	Moderation	Mediation	Moderation
<b>Total</b>	Significant	Nonsignificant	Nonsignificant	Nonsignificant
<b>Gender</b>	Nonsignificant	Nonsignificant	Nonsignificant	Nonsignificant
<b>Males</b>	Significant	Nonsignificant	Nonsignificant	Nonsignificant
<b>Females</b>	Significant	Nonsignificant	Nonsignificant	Nonsignificant

Figure 15. A summary of significance testing when examining the role of depression in the association between relational victimization and academic achievement.

*Note.* Gender = Significant difference between genders.

The second main objective of this study was to understand the role of social support in the association between relational victimization and academic achievement. Using the stress-buffering hypothesis, it was expected that social support would buffer against the adverse outcomes following relational victimization. However, there was limited evidence that social support moderated the effect of relational victimization on academic achievement; relational victimization was not more strongly associated to academic achievement when students perceived less amounts of social support. Despite these findings, there was evidence that social support partially explained why relational victimization was associated with academic achievement. However, there was more evidence that perceptions of social support mediated the association between relational victimization and academic achievement for females than males. See Figure 16 below for significant findings of social support as a moderator or a mediator.

		GPA		ISAT	
		Mediation	Moderation	Mediation	Moderation
<b>Parent Social Support</b>	<b>Total</b>	---	Nonsignificant	---	Nonsignificant
	<b>Gender</b>	Nonsignificant	Nonsignificant	Nonsignificant	Nonsignificant
	<b>Males</b>	Significant	Nonsignificant	Nonsignificant	Nonsignificant
	<b>Females</b>	Significant	Nonsignificant	Nonsignificant	Nonsignificant
<b>Teacher Social Support</b>	<b>Total</b>	---	Nonsignificant	---	Nonsignificant
	<b>Gender</b>	Nonsignificant	Nonsignificant	Nonsignificant	Nonsignificant
	<b>Males</b>	Nonsignificant	Nonsignificant	Nonsignificant	Nonsignificant
	<b>Females</b>	Significant	Nonsignificant	Nonsignificant	Nonsignificant
<b>Classmate Social Support</b>	<b>Total</b>	---	Nonsignificant	---	Nonsignificant
	<b>Gender</b>	Nonsignificant	Nonsignificant	Significant	Nonsignificant
	<b>Males</b>	Nonsignificant	Significant	Nonsignificant	Nonsignificant
	<b>Females</b>	Nonsignificant	Nonsignificant	Significant	Nonsignificant

Figure 16. A summary of significance testing when examining the role of social support in the association between relational victimization and academic achievement.

*Note.* Gender = Significant difference between genders.

The last main objective of this study was to understand the roles of social support and depression, together, in the association between relational victimization and academic achievement. It was found that the association among depression and social support mediated the association between relational victimization and academic achievement. Relational victimization was associated to academic achievement through the mediating role of depression and parent support.

Overall, the current study has provided additional evidence that relational victimization is associated with academic achievement. This link is more evident within their GPAs rather than their performance on a standardized achievement test (ISAT). It is hypothesized that being relationally victimized impacts students' day to day performance. This is consistent with the emotional difficulties hypothesis that suggests that the stressor of being relationally victimized drains of resources to perform well academically. This study sought to examine the process in which relational victimization is associated with poor academic performance. Depression was one construct that was examined; within this study, depression was associated with both relational victimization and academic achievement. However, when depression was examined within the context of relational victimization and academic achievement together, depression only partially explained why relational victimization is associated with academic achievement for females but not males. The second construct that was examined was social support; according to the stress buffering hypothesis, social support buffers against adverse life effects.

Within this study, social support was associated with both relational victimization and academic achievement. However, when social support was examined within the context of relational victimization and academic achievement together, social support from parents only partially explained why relational victimization is associated with academic achievement. Additionally, social support from teachers and classmates partially explained why relational victimization was associated with academic achievement for females. This suggests that higher levels of relational victimization and low levels of social support may be associated with lower academic achievement.

Lastly, this study examined how depression and social support, together, are associated with both relational victimization and academic achievement. Within the female sample, it was found that relational victimization was associated with poor academic achievement through the process of depression and social support from parents. Overall, this study began to fill a gap in the existing literature that examines what multiple processes, together, explain why relational victimization is associated with poor academic outcomes.

### Limitations and Future Directions

Although this study was the first of its kind to examine the associations between relational victimization, social support, depression, and academic achievement, several limitations should be noted. First of all, the data provided for the analyses were part of an all-school-evaluation extant data set. This leads to several limitations in itself in terms of the sample, administration of the measures, and the constructs themselves.

First, the data was collected through an all-school-evaluation. Therefore, the data were limited to a seventh and eighth grade sample from one school. Future research should examine the associations among relational victimization, social support, depression, and academic achievement from a broader sample. The sample, although large, was also limited in the minority ethnicity compared to the United States Census. Additionally, since the data were also taken from only one school and, therefore, were not generalizable. If other schools were involved, there could have been more fluctuation in scores, including relational victimization scores, social support scores, depression scores, and academic achievement score. Finally, these data were not longitudinal, thus, no direction of effects could be explored. Additionally, the way the measures were administered also leads to several limitations. First, the measures were administered in a large gymnasium where students sat on the floor while completing the measures; students may have been uncomfortable, students could have been distracted by the many other students in the gymnasium and students may not have answered honestly. Future examination of these constructs should administer the measures in a quieter, monitored, and comfortable location. In addition to how the measures were administered, the order of the measures was not counterbalanced. This led to a significant limitation of the findings of relational aggression; the CSEQ was administered last and many students were not able to complete the CSEQ due to time constraints.

Second, the data were also limited in the constructs available. This alone leads to several limitations. For example, only certain indexes were available from the BASC. Future research could examine how other constructs, such as anxiety, also impacts the association between relational aggression and academic achievement. Additionally, the internal consistency for the

depression index was fair with Cronbach's Alpha ( $\alpha = .7$ ), suggesting comprised reliability among items. This could be due to the items not being counterbalanced, thus the responses could be influenced by fatigue or outside factors.

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APPENDIX

STUDENT DAY ONE QUESTIONNAIRE PACKET

## PLEASE DO NOT WRITE IN THIS PACKET

Before answering the questions, look at the “Height” box. Please write the first three numbers of your school ID in these boxes. Then look at the “Weight” box. Please write the last three numbers of your school ID in these boxes. Also, please fill in the bubbles beneath each number. So, if you read across the “Height” and “Weight” boxes, it should be the same as your school ID.

For example, if the ID number is 123456, the 1 2 3 will go in the “Height” box and 4 5 6 will go in the “Weight” box

Height		
Ft	Inches	
1	2	3
⓪	⓪	⓪
●	①	①
②	●	②
③	③	●
④	④	④
⑤	⑤	⑤
⑥	⑥	⑥
⑦	⑦	⑦
⑧	⑧	⑧
⑨	⑨	⑨

Weight		
4	5	6
⓪	⓪	⓪
①	①	①
②	②	②
③	③	③
●	④	④
⑤	●	⑤
⑥	⑥	●
⑦	⑦	⑦
⑧	⑧	⑧
⑨	⑨	⑨

Please ask for help if you have a question or don't understand something.

**Do not skip any sentences. Remember, there are no “right” or “wrong” answers and all of your answers will be kept private.**

Please turn to the next page and answer the questions. Thank you!



<b>My Parent(s)...</b>	<u>How Often?</u>					
	<b>Never</b>	<b>Almost Never</b>	<b>Some of the Time</b>	<b>Most of the Time</b>	<b>Almost Always</b>	<b>Always</b>
1...show they are proud of me.	A	B	C	D	E	F
2...understand me.	A	B	C	D	E	F
3...listen to me when I need to talk.	A	B	C	D	E	F
4...make suggestions when I don't know what to do.	A	B	C	D	E	F
5...give me good advice.	A	B	C	D	E	F
6...help me solve problems by giving me information.	A	B	C	D	E	F
7...tell me I did a good job when I do something well.	A	B	C	D	E	F
8...nicely tell me when I make mistakes.	A	B	C	D	E	F
9...reward me when I've done something well.	A	B	C	D	E	F
10...help me practice my activities.	A	B	C	D	E	F
11...take time to help me decide things.	A	B	C	D	E	F
12...get me many of the things I need.	A	B	C	D	E	F
<b>My Teacher(s)...</b>	<u>How Often?</u>					
	<b>Never</b>	<b>Almost Never</b>	<b>Some of the Time</b>	<b>Most of the Time</b>	<b>Almost Always</b>	<b>Always</b>
13...cares about me.	A	B	C	D	E	F
14...treats me fairly.	A	B	C	D	E	F
15...makes it okay to ask questions.	A	B	C	D	E	F
16...explains things that I don't understand.	A	B	C	D	E	F
17...shows me how to do things.	A	B	C	D	E	F
18...helps me solve problems by giving me information.	A	B	C	D	E	F
19...tells me I did a good job when I've done something well.	A	B	C	D	E	F
20...nicely tells me when I make mistakes.	A	B	C	D	E	F
21...tells me how well I do on tasks.	A	B	C	D	E	F
22...makes sure I have what I need for school.	A	B	C	D	E	F
23...takes time to help me learn to do something well.	A	B	C	D	E	F
24...spends time with me when I need help.	A	B	C	D	E	F

<b>My Classmates...</b>	<b>How Often?</b>					
	<b>Never</b>	<b>Almost Never</b>	<b>Some of the Time</b>	<b>Most of the Time</b>	<b>Almost Always</b>	<b>Always</b>
25...treat me nicely.	A	B	C	D	E	F
26...like most of my ideas and opinions.	A	B	C	D	E	F
27...pay attention to me.	A	B	C	D	E	F
28...give me ideas when I don't know what to do.	A	B	C	D	E	F
29...give me information so I can learn new things.	A	B	C	D	E	F
30...give me good advice.	A	B	C	D	E	F
31...tell me I did a good job when I've done something well.	A	B	C	D	E	F
32...nicely tell me when I make mistakes.	A	B	C	D	E	F
33...notice when I have worked hard.	A	B	C	D	E	F
34...ask me to join activities.	A	B	C	D	E	F
35...spend time doing things with me.	A	B	C	D	E	F
36...help me with projects in class.	A	B	C	D	E	F

<b>My Close Friend...</b>	<b>How Often?</b>					
	<b>Never</b>	<b>Almost Never</b>	<b>Some of the Time</b>	<b>Most of the Time</b>	<b>Almost Always</b>	<b>Always</b>
37...understands my feelings.	A	B	C	D	E	F
38... sticks up for me if others are treating me badly.	A	B	C	D	E	F
39... spends time with me when I'm lonely.	A	B	C	D	E	F
40...gives me ideas when I don't know what to do.	A	B	C	D	E	F
41...gives me good advice.	A	B	C	D	E	F
42...explains things that I don't understand.	A	B	C	D	E	F
43...tells me he or she likes what I do.	A	B	C	D	E	F
44...nicely tells me when I make mistakes.	A	B	C	D	E	F
45...nicely tells me the truth about how I do on things.	A	B	C	D	E	F
46...helps me when I need it.	A	B	C	D	E	F
47...shares his or her things with me.	A	B	C	D	E	F
48...takes time to help me solve my problems.	A	B	C	D	E	F

How often do you <u>do</u> these things, <u>think</u> these things, or <u>feel</u> that these things happen to you?						
<b>CAREFUL! These are rated (A) to (E)</b>		Almost Never	Sometimes	Almost Always		
49.	I like to spend time with other people.	A	B	C	D	E
50.	I share my things with other people.	A	B	C	D	E
51.	I do my work carefully.	A	B	C	D	E
52.	I get nervous for silly things.	A	B	C	D	E
53.	I know a lot of things.	A	B	C	D	E
54.	I am in a bad mood.	A	B	C	D	E
55.	I enjoy working hard.	A	B	C	D	E
56.	I get into heated arguments with others.	A	B	C	D	E
57.	I like to compete with others.	A	B	C	D	E
58.	I daydream a lot.	A	B	C	D	E
59.	I am honest and kind with others.	A	B	C	D	E
60.	It is easy for me to learn what is taught at school.	A	B	C	D	E
61.	I know when others need my help.	A	B	C	D	E
62.	I like to be active.	A	B	C	D	E
63.	I get angry easily.	A	B	C	D	E
64.	I like to give gifts.	A	B	C	D	E
65.	I argue with others.	A	B	C	D	E
66.	When the teacher asks questions I am able to give the correct answer.	A	B	C	D	E
67.	I like to be around others.	A	B	C	D	E
68.	I get very involved in the things I do and I do them to the best of my ability.	A	B	C	D	E
69.	If someone does something to hurt me, I forgive him/her.	A	B	C	D	E
70.	I concentrate on my work in class.	A	B	C	D	E
<b>How often do you <u>do</u> these things, <u>think</u> these things, or <u>feel</u> that</b>						

<b>these things happen to you?</b>		<b>Almost Never</b>	<b>Sometimes</b>	<b>Almost Always</b>		
71.	It is easy for me to tell others what I think.	A	B	C	D	E
72.	I like to read books.	A	B	C	D	E
73.	When I finish my homework, I check it many times to make sure I did it correctly.	A	B	C	D	E
74.	I say what I think.	A	B	C	D	E
75.	I am nice to all of my classmates.	A	B	C	D	E
76.	I respect and follow the rules.	A	B	C	D	E
77.	My feelings get hurt easily.	A	B	C	D	E
78.	When the teacher explains something I understand immediately.	A	B	C	D	E
79.	I am sad.	A	B	C	D	E
80.	I treat others with kindness.	A	B	C	D	E
81.	I like scientific TV shows.	A	B	C	D	E
82.	If I make an appointment I keep it.	A	B	C	D	E
83.	I find things to do so that I will not get bored.	A	B	C	D	E
84.	I like to watch news on TV, and to know what happens in the world.	A	B	C	D	E
85.	My room is neat and organized.	A	B	C	D	E
86.	I am polite when I talk to others.	A	B	C	D	E
87.	If I want to do something, I cannot wait and I have to be able to do it immediately.	A	B	C	D	E
88.	I like to talk with others.	A	B	C	D	E
89.	I am not patient.	A	B	C	D	E
90.	I am able to convince other people to agree with what I think.	A	B	C	D	E
91.	I am able to make up new games and things to do.	A	B	C	D	E
92.	When I start to do something I have to finish it no matter what.	A	B	C	D	E
<b>How often do you <u>do</u> these things, <u>think</u> these things, or <u>feel</u> that</b>						

<b>these things happen to you?</b>						
		<b>Almost Never</b>	<b>Sometimes</b>	<b>Almost Always</b>		
		A	B	C	D	E
93.	If a classmate is having trouble I help him/her.	A	B	C	D	E
94.	I am able to solve mathematical problems.	A	B	C	D	E
95.	I trust others.	A	B	C	D	E
96.	I like to keep all my school things neat and organized.	A	B	C	D	E
97.	I lose my calm easily.	A	B	C	D	E
98.	When I say something, others listen to me and do what I say.	A	B	C	D	E
99.	I treat even the people I dislike with kindness.	A	B	C	D	E
100.	I like to learn new things.	A	B	C	D	E
101.	I always finish my homework before I play.	A	B	C	D	E
102.	I get irritated when things are difficult for me.	A	B	C	D	E
103.	I like to joke around.	A	B	C	D	E
104.	I almost never move my attention away from what I am doing.	A	B	C	D	E
105.	I make friends easily.	A	B	C	D	E
106.	I cry.	A	B	C	D	E
107.	I would like very much to travel and learn about other countries.	A	B	C	D	E
108.	I think other people are good and honest.	A	B	C	D	E
109.	I worry about silly things.	A	B	C	D	E
110.	I understand things immediately.	A	B	C	D	E
111.	I am happy and active.	A	B	C	D	E
112.	I let other people use my things.	A	B	C	D	E
113.	I take care of my responsibilities.	A	B	C	D	E

**CAREFUL! These are rated (A) to (B)**

		<b>True</b>	<b>False</b>
<b>114.</b>	Nothing goes my way	A	B
<b>115.</b>	I used to be happier	A	B
<b>116.</b>	I don't care about school	A	B
<b>117.</b>	My classmates don't like me	A	B
<b>118.</b>	Nothing is fun anymore	A	B
<b>119.</b>	Nobody ever listens to me	A	B
<b>120.</b>	My teacher understands me	A	B
<b>121.</b>	I just don't care anymore	A	B
<b>122.</b>	I don't like thinking about school	A	B
<b>123.</b>	I get along well with my parents	A	B
<b>124.</b>	I don't seem to do anything right	A	B
<b>125.</b>	Other children don't like to be with me	A	B
<b>126.</b>	Nothing ever goes right for me	A	B
<b>127.</b>	My teacher cares about me	A	B
<b>128.</b>	Nothing about me is right	A	B

**CAREFUL! These are rated (A) to (D)**

	Never	Sometimes	Often	Almost Always
129. My school feels good to me	A	B	C	D
130. I am proud of my parents	A	B	C	D
131. Other kids hate to be with me	A	B	C	D
132. I feel like my life is getting worse and worse	A	B	C	D
133. School is boring	A	B	C	D
134. My teacher trusts me	A	B	C	D
135. I feel depressed	A	B	C	D
136. Teachers make me feel stupid	A	B	C	D
137. No one understands me	A	B	C	D
138. I like going places with my parents	A	B	C	D
139. I feel that nobody likes me	A	B	C	D
140. I feel sad	A	B	C	D
141. I get bored in school	A	B	C	D
142. Teachers look for the bad things that you do	A	B	C	D
143. My parents are easy to talk to	A	B	C	D
144. Teachers are unfair	A	B	C	D
145. My mother and father like my friends	A	B	C	D
146. People think I am fun to be with	A	B	C	D
147. My mother and father help me if I ask them to	A	B	C	D
148. I feel like I want to quit school	A	B	C	D
149. My teacher is proud of me	A	B	C	D
150. I am slow to make new friends	A	B	C	D
151. My parents listen to what I say	A	B	C	D
152. I like to be close to my parents	A	B	C	D
153. My teachers want too much	A	B	C	D
154. I am liked by others	A	B	C	D
155. My parents trust me	A	B	C	D
156. I hate school	A	B	C	D
157. My parents are proud of me	A	B	C	D
158. My teacher gets mad at me for no good reason	A	B	C	D

<b>159. What is your gender?</b> (select one)	
<b>A-</b> Male	<b>B-</b> Female
<b>160. What is your grade?</b> (select one)	
<b>A-</b> 7 <sup>th</sup>	<b>B-</b> 8 <sup>th</sup>
<b>161. What is your age?</b> (select one)	
<b>A-</b> 11 or younger	<b>D-</b> 14
<b>B-</b> 12	<b>E-</b> 15 or older
<b>C-</b> 13	
<b>162. What is/are your ethnicity(ies)?</b> (select all that apply)	
<b>A-</b> African American	<b>D-</b> Hispanic/Latino(a)
<b>B-</b> Asian	<b>E-</b> Native American
<b>C-</b> White	<b>F-</b> Other
<b>163. What is the month of your birthday?</b> (select one)	
<b>A-</b> January or February	<b>F-</b> July
<b>B-</b> March	<b>G-</b> August
<b>C-</b> April	<b>H-</b> September
<b>D-</b> May	<b>I-</b> October
<b>E-</b> June	<b>J-</b> November or December
<b>164. What is the year of your birthday?</b> (select one)	
<b>A-</b> 1997 or earlier	<b>E-</b> 2001
<b>B-</b> 1998	<b>F-</b> 2002
<b>C-</b> 1999	<b>G-</b> 2003 or later
<b>D-</b> 2000	
<b>165. What do you think your grades in school are right now?</b> (select one)	
<b>A-</b> Mostly As	<b>D-</b> Mostly Ds
<b>B-</b> Mostly Bs	<b>E-</b> Mostly Fs
<b>C-</b> Mostly Cs	



<p style="text-align: center;"><b>THINGS THAT HAPPEN TO ME</b>  <b>CAREFUL! These are rated (A) to (E)</b></p>	Never	Almost Never	Sometimes	Almost all The Time	All The Time
	A	B	C	D	E
166. How often does another peer give you help when you need it?	A	B	C	D	E
167. How often do you get hit by another peer at school?	A	B	C	D	E
168. How often do other peers leave you out or exclude you from activities when they are angry with you?	A	B	C	D	E
169. How often does another peer yell at you and call you mean names?	A	B	C	D	E
170. How often does another peer try to cheer you up when you feel sad or upset?	A	B	C	D	E
171. How often does a peer try to get even with you by excluding you from their group of friends?	A	B	C	D	E
172. How often do you get pushed or shoved by another peer?	A	B	C	D	E
173. How often does another peer do something that makes you feel happy?	A	B	C	D	E
174. How often does a peer spread rumors or gossip about you to make others not like you anymore?	A	B	C	D	E
175. How often does a peer start a physical fight with you?	A	B	C	D	E
176. How often does another peer threaten to not hang out with you unless you do what they want you to do?	A	B	C	D	E
177. How often does another peer say something nice to you?	A	B	C	D	E
178. How often does a peer try to keep others from hanging out with you by saying mean things about you?	A	B	C	D	E
179. How often does another peer threaten to beat you up if you don't do what they want you to do?	A	B	C	D	E
180. How often do other peers let you know they care about you?	A	B	C	D	E