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# Sources of Social Support and Their Relationship with Victimization and Social Emotional Outcomes

Jordan L. Wenger

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Sources of Social Support and Their Relationship with Victimization

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Jordan L. Wenger

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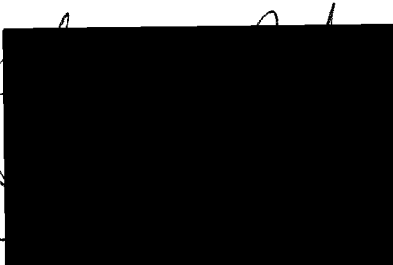
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RUNNING HEAD: Social Support and Victimization

Sources of Social Support and Their Relationship with Victimization and Social/Emotional Outcomes

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### Abstract

Victimization is associated with several negative outcomes; however, social support has been identified as a potential moderator. Social support can come from different sources, including parents, teachers, classmates, close friends, and the school environment. This study compared the frequency of classmate and teacher social support among intermediate and middle school students and investigated the relationship among these three variables. Finally, grade level and sex differences were considered as factors that influence the interrelationship among social support, victimization, and social/emotional outcomes. Participants included 649 students from a rural Illinois school district. Results indicated that there were no significant differences in the frequency of classmate and teacher support between intermediate and middle school students. Classmate support moderated the relationship between victimization and social/emotional outcomes, as measured by the Behavioral and Emotional Screening System (BESS). However, teacher support did not moderate the relationship between victimization and social/emotional outcomes. Interestingly, classmate support also moderated the relationship between female victims and social/emotional outcomes that were measured by the BESS scale. No further sex or grade level differences were found. The implications and limitations of the current study are discussed, as well as directions for future research.

### Introduction

Researchers have used several definitions of bullying; however, most definitions include three elements: a power differential, repeated exposure to the bullying behavior, and intentionality (Olweus, 1993). Rivers & Smith (1994) provided evidence for developmental considerations concerning the prevalence of bullying in schools. The literature has consistently suggested that the frequency of bullying increases towards the end of elementary school, hits its peak in middle school, and tapers off as students advance into high school. Within bullying literature, researchers have also begun to emphasize bullying as a systematic, social process (Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukiainen, 1996). Five different bullying roles have been investigated, including: bully, victim, assistant, defender, and outsider. Bullies are considered the perpetrators, while victims are their targets. Assistants support the bully by encouraging the bullying behaviors or joining in. However, defenders offer their support to the victim. Finally, outsiders are students who remain uninvolved but still witness the bullying event.

Students who are directly involved in bullying may experience several negative outcomes (Prinstein, Boergers, & Vernberg, 2001). Bullying is typically associated with externalizing problems (Kaltiala-Heino, Rimpela, Rantanen, & Rimpela, 2000), whereas victims are often categorized with negative social/emotional outcomes such as mental health problems and suicidal ideation (Rigby, 2001). However, defenders and outsiders, whose roles are often combined into the general term “bystanders”, have also been shown to experience negative outcomes due to their indirect involvement in the bully/victimization process (Rivers & Noret, 2010).

Extensive research has been conducted regarding strategies that may buffer or explain the relationship between victimization and negative outcomes. Among these strategies is social support, and there are several sources of support that are available to students who are involved in bullying, such as: parents, teachers, classmates, close friends, and the school environment (Tardy, 1985). Research has shown that students who are involved in different bullying roles may report differences in the frequency of support from these sources (Furlong, Chung, Bates, & Morrison, 1996). For instance, victims have been shown to perceive less social support when compared to all other bullying roles (Furlong et al., 1996). Also, Demaray and Malecki (2003b) found that bullies perceive less parental support than their peers. Along with individual differences regarding the sources of support, there may be developmental factors associated with

sources of social support. For instance, Demaray and Malecki (2003a) found that younger students place more value on all sources of support, whereas Frey and Rothelisberger (1996) found that adolescents place more value in parental support.

It is important to consider these individual and developmental differences in order for schools to better serve their students with bullying prevention programs. For instance, if research shows that girls place higher value in parental support, bullying prevention should target this source of support for girl students (Davidson & Demaray, 2007). The purpose of this study was to better understand the triadic relationship between victimization, negative outcomes, and social support.

### **Prevalence and Types of Bullying**

Olweus (1993) used the following definition to describe bullying: “a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students” (p. 9). These negative actions must include intent to cause harm, with an imbalance of power between the bully and victim (Olweus, 2003). Bullying statistics are greatly affected by how researchers define these behaviors; however, Dinkes, Kemp, and Baum (2009) estimated that 32 percent of students between the ages of 12 and 18 reported being bullied at school. Research has provided evidence that the frequency of bullying increases during elementary school and hits their peak among middle school-aged students, while the frequency decreases as students move into high school (Rivers & Smith, 1994; Wang, Iannotti, & Nansel, 2009).

Researchers have divided bullying behaviors into several dimensions. First, there are direct or indirect behaviors. Direct aggression is defined as behaviors that are intended to cause harm to an individual. Bullying assessments tend to concentrate on these behaviors because they are more easily measured (Bjorkqvist, Lagerspetz, & Kaukianian, 1992). For example, direct aggression may include physical contact or verbal threats. Indirect bullying behaviors, which may include third party participants, are characterized by social exclusion and spreading rumors. Indirect bullying decreases the perpetrators likelihood to experience counter-aggression and increases their chance of remaining anonymous (Bjorkqvist et al., 1992). Due to its elusive nature, indirect aggression is more difficult to measure. Researchers have suggested that boys are more involved in direct bullying behaviors, whereas girls use more indirect approaches (Wang et al., 2009). However, Bjorkqvist et al. (1992) provided evidence that

maturation also has an influence on direct or indirect behaviors than a simple comparison between sexes. Also, according to Salmivalli & Voeten (2004), personality factors influence boys' behavior, while contextual factors played a larger role in the girls' bullying behaviors.

Bullying may be further divided into three different categories: physical, verbal, and relational (Wang et al., 2009). Physical and verbal bullying behaviors are classified as direct aggressive acts, and relational bullying is a form of indirect aggression. Although it is often difficult to categorize bullying behaviors, the student's social concerns and intent helps define them (Crick & Grotpeter, 1995).

**Physical Bullying.** Physical bullying describes repeated, negative actions that cause physical harm to an individual (Olweus, 1993). These behaviors are action-oriented and must involve physical contact with the victim, such as shoving, kicking, biting, pinching, and hitting. Wang et al. (2009) reported that 13.3% of students are involved in physical forms of bullying. Physical bullying is considered the least sophisticated type of bullying because bullies are easily identified, thus, it is considered the most reported form of peer aggression (Batsche & Knoff, 1994; Smokowski & Kopasz, 2005). Typically, the bully possesses more physical strength than the victim, which establishes the imbalance of power needed to characterize bullying. These bullies may rule by intimidation as well, by tormenting victims who are more unlikely to retaliate or those who they have successfully bullied in the past. Physical bullying may also be a learned behavior. Batsche and Knoff (2004) reported that bullies were more likely to come from homes where parents used physical means to discipline.

**Verbal Bullying.** Verbal bullying is another common type of bullying, which is characterized by negative actions that are perpetrated through speech and language (Olweus, 1993). Verbal bullying includes behaviors such as threats, name-calling, and taunting. It is estimated that 37.4% of students involved in this type of bullying (Wang et al., 2009). Research has presented verbal aggression as either a psychological antecedent or a social consequence (Hamilton, 2012). Egocentrism and hostility are considered to be psychological mechanisms that may drive these behaviors (e.g., antecedent characteristics). However, researchers have also considered whether verbal aggression results from the individual's attitude towards these bully behaviors and other aggressive behaviors (e.g., social consequence). Bauman & Del Rio (2006) reported that teachers were more likely to intervene in instances of physical and verbal bullying. Their willingness to become involved may be attributable to the objective policies that schools enact (Bauman &

Del Rio, 2006). For instance, schools may enforce zero tolerance policies towards physical fighting and vulgar language but they do not address other acts of indirect aggression (e.g., relational bullying). Also, teachers are more able to detect the severity of the conflict (i.e., name-calling is less severe than using vulgar language), which increases the likelihood that they will intervene.

**Relational Bullying.** Lastly, relational bullying is a type of indirect aggression that uses relationships as the vehicle of social isolation. Bjorkqvist et al. (1992) described this type of bullying as an “attempt to inflict pain in such a manner that he or she makes it seem as though there has been no intention to hurt at all” (p. 118). These behaviors include spreading rumors, slander, friendship manipulation and social exclusion (Elinoff, Chafouleas, & Sassu, 2004). Relational bullying is often hard to identify because of its complex nature and the possible lack of direct contact between the bully and victim. Thus, this type of bullying is significantly more difficult to observe and reliably measure. Wang et al. (2009) estimated that 27.2% of students are involved in this type of bullying. Relational bullying behaviors are maintained through third party participation, which is defined by a systematic perspective (Salmivalli et al., 1996). For example, a bully may encourage other children in their group to not allow a specific student to sit at their table during lunch. Also, bullies rely on third party participants to spread rumors, which is common in this type of bullying. Crick and Grotpeter (1995) found that relational bullying was significantly related to sex and psycho-social adjustment of the individual. In the same article, the authors reported that, while boys are more overtly aggressive, girls are significantly more likely to participate in indirect, relational bullying. However, other researchers have suggested that students’ participation in these bullying behaviors were not related to sex. Prinstein et al. (2001) found that the frequencies of relational aggression between the sexes were comparable.

### **Bullying Roles**

Individuals frequently consider bullying as an interaction between only the bully and their victim. However, research has shifted to considering bullying and victimization as a systematic process (Salmivalli et al., 1996; Salmivalli & Voeten, 2004). Systematic victimization presents the idea that bullying behaviors are maintained through peer-reinforcement, which highlights the social nature of peer groups and different roles that students take within their group(s). Researchers have divided these roles into five categories: bullies, victims, defenders (of the victim), assistants (of the bullies), and outsiders (Salmivalli et al., 1996;

Demaray, Summer, Jenkins, & Becker, in press). The current study will focus on victims. However, a brief description of bullies, bully-victims and defenders is first provided below for a broader understanding of systematic bullying that has been described in the literature.

**Bully.** Bullies represent 8.2% of the students involved in bullying and victimization in school (Salmivalli et al., 1996). They are often referred to as “active, initiative-taking, and leader-like” (Salmivalli et al., 1996, p. 4). When compared to their peers, bullies are more likely to come from homes where their parents are authoritarian (i.e., use more physical means to discipline), have inconsistent parenting practices, and teach their children to retaliate against even minimal provocation (Floyd, 1985; Greenbaum, 1988). Although bullying and victimization are negatively perceived among students, bullies tend to score lower on anti-bullying attitudes when compared to their peers (Salmivalli et al., 2004). In other words, bullies are less likely to report negative attitudes towards bullying behaviors. Also, according to French (1988), male bullies scores were significantly higher on social rejection, which predicted more aggressive behaviors. On the other hand, female bullies’ aggression could not be predicted by social rejection (French, 1990). In fact, Salmivalli et al. (1996) stated that female bullies may experience high levels of peer acceptance. However, certain aggressive behaviors were associated with social rejection for female bullies. According to Crick and Grotpeter (1995), female bullies were socially rejected when they engaged in relational and verbal bullying behaviors.

**Bully-Victims.** A bully-victim is an individual that can be categorized as both a perpetrator and a victim of bullying behaviors. Although previous literature has concentrated on bullies and victims, researchers have begun to investigate the characteristics of students who can be categorized in both of these bullying roles. For instance, the literature suggests that male students are more likely to be identified as bully-victims than their female counterparts (Jansen, Veenstra, Ormel, Verhulst, & Reijneveld, 2011; Veenstra et al., 2005). Veenstra et al. (2005) suggested that girls were more likely to be passive victims, who do not engage in aggressive behaviors in retaliation.

Researchers have also reported bully-victims characteristics that differentiate these students from pure bullies and pure victims. For instance, the literature suggests that bully-victims are less socially influential than bullies (Farmer et al., 2010). Bullies may engage in aggressive behaviors to exert control over their surroundings, while bully-victims may be reacting to their environment. Also, when compared to

bullies, bully-victims were more likely to socialize with peers who were also involved in bullying, whereas pure bullies also associated with uninvolved peers (Farmer et al., 2010). Furthermore, female bully-victims were found to associate with peers who were most likely identified as victims, while their male counterparts were reported to associate with peers who were either identified as pure bullies, pure victims, and uninvolved peers (Farmer et al. 2010). Finally, Pollastri, Cardemil, and O'Donnell (2010) suggested that bully-victims reported the lowest self-esteem when compared to peers involved in other bullying roles.

**Defender.** Defenders, also referred to as active bystanders, are children who take sides with the victim. This can be accomplished in a variety of ways, like supporting the victim, consoling them, or actively intervening to stop others from bullying (Salmivalli et al., 1996). Salmivalli et al. (1996) estimated that 17.3% of the students involved in systematic victimization are classified as defenders. Girls are considered to make up the majority of this group (30.1%), with only 4.5% of boys identified as defenders (Salmivalli et al., 1996). Also, studies have suggested that age is a determinant factor, where younger children were more likely to defend the victim (Pozzoli & Gini, 2010).

Researchers have investigated differences in defender behaviors by considering inter- and intra-personal factors. For instance, Rigby and Johnson (2006) found that peer expectation of a child to support the victim predicted their actions during bullying situations. Also, Pozzoli and Gini (2010) reported similar findings, "...defending behavior was positively predicted by perceived peer pressure for intervention, above and beyond the effects of other individual characteristics" (p. 825). Therefore, students who typically display minimal defending behaviors will actively intervene if they perceive pressure from their peers to defend the victim. However, these authors found that moral responsibility was only a predictor among girls, but not boys (Pozzoli & Gini, 2010). Furthermore, previous literature also suggested that defenders have higher levels of friendliness (Gini, Albiero, Benelli, & Altoe, 2008) and empathy (Tani, Greenman, Chneider, & Fregoso, 2003). Defenders were also more securely attached to their parents, especially their mothers (Nickerson, Meli, & Princiotta, 2008).

**Victim.** Victims are the targets of bullies. It is estimated that victims represent 11.7% of the students involved in bullying at school (Salmivalli et al., 1996). Researchers who identify students' roles in bullying situations often use a peer-nominated assessment tool, in which peers create a list of classmates that fit each role described. Interestingly, Salmivalli et al. (1996) noted that "almost one fourth (23.9%) of

the Victims (i.e., those who were nominated by at least 30% of their peers) did not mention themselves, but someone else, as a victim” (p. 12). The authors hypothesized that victims may not realize they are being harassed or repress/deny their low social standing among their peers (Salmivalli et al., 1996).

Research also suggests that victims display more passive and/or submissive behaviors than peers who were classified in other bullying roles (Salmivalli et al., 1996); however, Houdoumadi, Pateraki, and Doanidou (2003) presented research on victims who respond aggressively to bullies, although this response is rare among victims. Aggressive behaviors from victims often fail to decrease the frequency of bullying, perhaps because their fighting is viewed as ineffective and emotionally disregulated (e.g., out of character; Houdoumadi et al., 2003).

Children’s psychological functioning and social environmental factors (e.g., relationship with peers and the home environment) may contribute to their experiences and behaviors in bullying situations. In terms of their psychological functioning, the literature suggests that victims have higher levels of loneliness when compared to their peers (Atik & Guneri, 2013). Also, Atik and Guneri (2013) found that victims also identified with the perspective of an external locus of control, which contributes to their inability to establish the relationship between their behaviors and associated consequences. Victims show significantly lower levels of self-esteem when compared to peers who have not been victimized (O’Moore & Kirkham, 2001). The literature suggests that there is a negative correlation between self-esteem and frequency of bullying victims’ experience (O’Moore et al., 2001). For instance, an individual who is bullied on a daily basis may have a lower self-esteem than a classmate who is only occasionally bullied. Lower self-esteem is a consequence of victims viewing themselves as “more troublesome, more anxious, less popular, and less physically attractive and as having lower intellectual and school status than children and adolescents who were not victimized” (O’Moore et al., 2001, p. 273).

In addition to the child’s own psychological wellbeing, their experiences with peers and within the home affect their behaviors when they are bullied. Victims have reported significantly lower amounts of positive peer interactions, which can lead to higher levels of victimization. Egan and Perry (1998) suggested that, as a consequence, they become overly anxious, emotional, and even submissive during peer conflicts. All of these behaviors may contribute to an increased frequency of bullying in the future. In terms of victims’ family interactions, Stevens, Bourdeaudhuij, and Van Oost (2002) found that these home



environments displayed a higher level of avoidance, which may contribute to victims' behavior in bullying situations. As discussed above, parents appear to influence the bully's behaviors more than the victim's (Stevens et al., 2002).

### **Negative Outcomes Associated with Victimization**

Victimization is associated with numerous negative outcomes for children and adolescents, including social, internalizing, and externalizing problems. Kaltiala-Heino et al. (2000) provided descriptions for each negative outcome. Social problems that are related to victimization include academic issues, school problems, and difficulties with personal adjustment. Internalizing problems are characterized by chaotic moods or emotions (i.e., depression or anxiety). In the current study, the term "social/emotional problems" will be used to encompass both social and internalizing problems. Externalizing disorders involve inappropriate observed behaviors (i.e., aggression or substance abuse).

Kochenderfer and Ladd (1996) found bullying and victimization is a precursor for these negative outcomes. Therefore, an individual's previous involvement in peer aggression can predict their adjustment. Also, Prinstein et al. (2001) found that adolescents who experience multiple forms of aggression (i.e., relational and overt forms) are at an increased risk of suffering from both internalizing and externalizing behaviors when compared to peers who were victims of only one form of aggression. Thus, it is not only important to understand both the student's previous involvement in bullying, but also which forms of aggression they experienced.

**Internalizing Problems.** Individuals with internalizing problems can experience symptoms of depression and anxiety, psychosomatic issues, psychosocial maladjustment and even eating disorders. Kaltiala-Heino et al. (2000) suggested that it was significantly more difficult for school professionals to identify students with these issues because they are harder to observe than externalizing problems. Although all age groups are at risk for experiencing these issues, eating disorders were significantly more associated with adolescents than younger children. (Kaltiala-Heino et al., 2000)

Researchers have investigated how students' role in bullying and victimization influences their negative outcomes. Rigby (2001) found that victims who were chronically bullied were more likely to report mental health problems and experience suicidal ideation. The literature has also suggested that victims are more likely to experience internalizing problems than bullies, bully-victims, and their

uninvolved peers (Kumpulainen et al., 1998). However, Kaltiala-Heino et al. (2000) reported that depression, anxiety, and psychosomatic symptoms are equally associated with bullies and victims. These opposing conclusions may result from possible sex differences across bullying roles. For instance, female bully-victims and victims were significantly more likely to report negative moods than their male counterparts (Kumpulainen et al., 1998). In contrast, Kaltiala-Heino et al. (2000) showed that mental health problems were equally attributed to boys and girls. Overall, Gini (2008) found that bullies were at risk for fewer psychological adjustment problems when compared to victims and bully-victims.

Similarly, bullies and victims have also been found to experience suicidal ideation (Kim, Leventhal, Koh, & Boyce, 2009). Girls were more likely to report thoughts of suicide than boys, even when boys experienced more serious forms of victimization (Kim et al., 2009). Few studies have contemplated the risk of suicide among bystanders (i.e., defenders or outsiders). However, this is an important area of research considering the group implications of bullying and victimization. Rivers and Noret (2010) reported a greater risk among bystanders for suicide if they identified themselves as being a combination of bully, victim, and bystander.

**Externalizing Problems.** Individuals with externalizing problems often engage in aggressive behaviors towards others or experience substance abuse issues (Kaltiala-Heino et al., 2000). School personnel may be more likely to identify these behaviors because they are largely observable. In contrast to internalizing problems, bullies experience significantly higher externalizing problems than other bullying roles (Kaltiala-Heino et al., 2000; Kumpulainen et al., 1998). In fact, the act of bullying can be viewed as aggressive and, thus, categorized as an externalizing issue. Also, bullies exhibit significantly more substance abuse problems than victims (Kaltiala-Heino et al., 2000). However, Tharp-Taylor, Haviland, and D'Amico (2009) found that, among middle school-aged children, those who experienced mental and/or physical bullying were more likely to report substance abuse. Frequently victimized preadolescent boys were more likely to report alcohol or drug use than their female counterparts (Wormington, Anderson, Tomlinson & Brown, 2013). Therefore, these maladaptive behaviors may not be isolated to only bullies. In fact, research suggests that female victims of relational aggression an increased likelihood for externalizing behaviors (Prinstein et al., 2001).

Bullying and victimization may also be related to student's likelihood of carrying a weapon. Victims are more likely to bring weapons to schools when compared to their uninvolved peers (Carney & Merrell, 2001). Dukes, Stein, and Zane (2009) found that, for both adolescent boys and girls, increased incidents of physical bullying predicted increased likelihood of carrying a weapon to school. However, their study revealed differences between sexes when frequency of relational bullying was tested. Boys who experienced more relational bullying were more likely to carry a weapon than their female classmates who experienced the same frequency of relational bullying (Dukes et al., 2009).

### **Social Support**

Although negative outcomes can be detrimental to development, research has provided evidence that certain constructs can counteract these adverse effects. For example, Demaray and Malecki (2003b) reported that social support was negatively correlated with victimization. Social support is defined as "knowledge that a person is cared for, is esteemed, and belong to a large network of concerned people and that the support can be described both qualitatively and quantitatively (Pearson, 1986 as cited in Davidson & Demaray, 2007, p. 385). Social support affects the outcomes of bullying and victimization in a variety of ways: 1) support can prevent these situations from occurring; 2) directly affect the mental health of individuals within these situations; and 3) buffer the effects during and after their occurrence (Cohen & Wills, 1985). Individuals classified within the different bullying roles as described above may perceive different degrees of support. For instance, Furlong et al. (1996) found that victims perceived lower levels of social support; whereas, defenders reported higher levels of social support (Tani et al., 2003).

Tardy (1985) provided a popular model of social support that described different types and sources of support an individual can receive. Support may come in different types or forms: emotional support (e.g., listening), instrumental support (e.g., providing an individual with one's time or resources to solve a problem), informational support (e.g., giving information to help with an issue), and appraisal support (e.g., providing feedback on a project). Also, social support can come from different sources in an individual's social network, such as their parents, teachers, the school, classmates, and close friends. According to Malecki and Demaray (2003b), there were differences between the different types and sources of support: 1) emotional and informational support were significantly more associated with parental support; 2) informational support was more likely to come from teachers; and 3) emotional and instrumental support

were closely associated with classmates and close friends. Researchers have found some evidence that support provider characteristics and their ability may influence the effectiveness of the support received (Colarossi & Eccles, 2003).

Researchers have investigated individual differences in terms of importance and uses of social support from various sources. According to Demaray, Malecki, Rueger, Brown, and Summers (2009), if there was a discrepancy between the importance and frequency of support, the individual may experience decreases in their global self-concept. For instance, if students placed value on classmate support but did not perceive adequate availability, they may experience poorer outcomes compared to peers who did not place importance on classmate support.

Demaray and Malecki (2003a) found developmental differences in importance ratings for students. Children in lower grades placed significantly higher importance on all sources of support when compared to students in higher grades levels (Demaray & Malecki, 2003a). In addition, Frey and Rothlisberger (1996) provided evidence that adolescents turn to their parents/families for a wide-range of support, while friends serve as support in more specific, day-to-day situations. Research findings regarding social support across the various sources and in relation to bullying and victimization were explored below.

**Parent.** Parental involvement has been shown to affect children's behaviors in bullying situations (Stevens et al., 2002). Wang et al. (2009) stated, "Higher parental support was associated with less involvement across all forms and classifications of bullying" (p. 368). Rueger, Malecki, and Demaray (2008) found that parental support predicted lower levels of aggression and fewer conduct problems for girls, and better social skills for boys. Demaray and Malecki (2003b) found that bullies reported less parental support than uninvolved students. Interestingly, victims did not perceive less parental support than their uninvolved peers (Demaray & Malecki, 2003b).

In addition to their influential role in bullying situations, parents also may play a vital role in buffering the effects of bullying and victimization on their children. For instance, Demaray et al. (2005) found that parental support was significantly related to self-concept (which they defined using three components: self image, academic, and social). Tanigawa, Furlong, Felix and Sharkey (2011) reported an inverse relationship between parental social support and depressive symptoms. Although studies typically combine the effects of maternal and paternal support, Colarossi and Eccles (2003) concluded that these two

have a unique effect on adolescent depression. These authors found that maternal support had larger effects on levels of depression in girls and father support influenced boys' depression levels significantly more. Overall, well-adapted youth report better family relations than maladjusted groups (Herman-Stahl & Petersen, 1996).

Although parental support has been generally supported, research into its differential benefits between sexes has not been conclusive. For instance, Davidson and Demaray (2007) found that girls significantly preferred parental support when compared to boys. In contrast, Colarossi and Eccles (2003) found that boys perceived more support from their fathers, whereas there was no significant difference between sexes when considering maternal support. However, these studies investigated different age groups (middle versus high school, respectively). Also, Colarossi and Eccles (2003) separated the effects of maternal and paternal support. When considering the longitudinal effects, Rueger, Malecki, and Demaray (2008) provided evidence that parental support predicted positive outcomes for both sexes, above and beyond other sources of support. However, parental support uniquely predicted more positive outcomes for girls (i.e., fewer depressive symptoms, higher self-esteem, and attitude towards school) than boys (i.e., fewer depressive symptoms and higher self-esteem).

When comparing the potential benefits of parental and peer/classmate support, evidence has shown that parental support was a better predictor of positive adjustment than peer support (Helsen, Vollebergh, & Meeus, 2000). The strong relationship between parent support and positive adjustment may have resulted from the influence of parental attachment on adolescents' social relationships (Bowlby, 1973). However, parent-child relationships were also considered long-lasting and stable across time, which may affect their influence on child and adolescent mental health (Garnefski & Diekstra, 1996). Interestingly, Helsen et al. (2000) found that peer support did not compensate for the lack of parental support. Therefore, in times of stress, adolescents who perceived high levels of peer support, but lack support from their parents, may not be protected from emotional problems and other negative outcomes.

**Teacher.** Olweus (1993) found that 40 percent of students in elementary grades and 60 percent of students in junior high and high school reported that teachers only interfered with bullying or victimization "once in a while" or "almost never." These findings are troubling considering some researchers have concluded that teachers have a positive impact on students who are involved in bullying and victimization.

According to Roth, Kanat-Maymon, and Bibi (2011), autonomy-supportive teaching (e.g., acknowledgment of child's feelings and perspective, allowing choice and minimizing demands) was positively related to bullying behavior in the classroom. These findings suggest that external rules and regulations in the classroom do not sufficiently decrease bullying behaviors at school or in classrooms. Therefore, teachers' supportive relationships with their students may have a profound effect on student behaviors in bullying situations.

Teacher support has been associated with increased academic success, effective coping skills, and fewer somatic symptoms in response to peer victimization (Rigby, 2000; Tanigawa et al., 2001). Teacher support has also been found to significantly affect adolescent self-esteem (Colarossi & Eccles, 2003; Reddy, Rhodes, & Mulhall, 2003). Reddy et al. (2003) suggested that teacher support was significantly related to students' level of depression and self-esteem in a middle-school population (ranging from sixth to eighth grade). When students perceive a decrease in teacher support, they may also experience higher levels of depression and decreases in global self-esteem. The influence of teacher support may be related to child development as well. As students transition into middle school, a decrease in the levels of teacher support have been reported (Reddy et al., 2003). Salmivalli and Voeten (2004) commented on these findings:

It is conceivable, for instance, that "teacher effects" (and not yet group norms) predict student's bullying-related behaviours in lower grades. If this is the case, then factors such as teacher's tolerance or intolerance towards bullying behavior, as well as his or her actual efforts to prevent bullying or to intervene when bullying occurs, might be more powerful regulators of young children's behavior than peer group norms. (p. 256)

Despite the benefits of a positive teacher-student relationship, researchers have found individual differences in students' perception of teacher support. For instance, Rueger et al. (2010) found that female students reported significantly higher levels of teacher support than boys. However, evidence suggested that girls received less support from their teachers (Sadker & Sadker, 1995). Also, bullies perceived less teacher support than their uninvolved peers (Demaray & Malecki, 2003b). However, this may be due to bullies engaging in disruptive behaviors in the classroom.

In isolation, teacher support may not be as effective as other sources of support. Rosenfeld, Richman and Bowen (2000) stated, "Although perceived high teacher support appears to be a necessary

condition for positive school behavior, affect, and outcomes, it is not a sufficient condition” (p. 219). Instead, these authors found that, when teacher support was combined with either parent or friend support, participants experienced better outcomes than when only teacher support was reported. Furthermore, Rosenfeld et al. (2000) suggested that the combination of these three sources of support may change students’ response to school, which in turn could change their observed behaviors. When students’ behaviors toward school changed, this may influence specific educational outcomes (i.e., school attendance and grades).

**Classmates.** Students’ social networks may also influence the relationship between bullying or victimization and negative outcomes. Wang et al. (2009) reported a negative correlation between number of friendships and victimization, which suggested that social inclusion provides protection from becoming the bullies’ target. According to Herman-Stahl and Petersen (1996), “Peer relations are important for the identification of children at risk for maladjustment, as poor peer relations are one of the most salient characteristics distinguishing well-adjusted children from those seen in mental health clinics” (p. 735). As previously discussed, internalizing problems are often more difficult for school personnel to identify than externalizing problems. However, professionals can more easily identify students who are distant from peers or those who have not established positive peer relationships. Furthermore, researchers have hypothesized that the quality, not the quantity, of peer relationships is more indicative of their buffering effect from negative outcomes (Parker & Asher, 1993; Frey & Rothlisberger, 1996). Quality friendships include reciprocity, support, and a degree of confidentiality (Frey & Rothlisberger, 1996). Therefore, children and adolescents who indicate a lack of peer social support may be vulnerable to an array of problems.

Researchers have conceptualized peer support in different forms. Some have divided peer support into close friends and classmates, while others have concentrated on one or the other. Also, some researchers have simply looked at peers, without specifying the criteria they used to differentiate this source of support. In the current study, peer and classmate support will be used synonymously. In a longitudinal study, Demaray, Malecki, Davidson, Hodgson, and Rebus (2005) found that general classmate support significantly influenced student adjustment outcomes over time, whereas close friend support did not emerge as a predictor. Classmate support predicted student anxiety, social stress, depression, sense of

inadequacy, interpersonal relations, and self-esteem one year later. Rueger et al. (2008) also replicated these findings in a follow up study. These authors found that perceived support from the general peer group was significantly related to the student's psychological adjustment, whereas close friend support held little predictive power over future negative outcomes (Rueger et al., 2008). These findings may highlight the need for schools to include interventions that target overall peer relationships by giving students the opportunity to engage in positive social interactions with classmates who are not within the students' typical social circle.

The influence of classroom-wide norms on aggressive behaviors was further explored in other research (Henry et al., 2000; Salmivalli & Voeten, 2004). Henry et al. (2000) investigated the influence of both descriptive classroom norms (or the level of observed aggression from classmates) and injunctive classroom normative beliefs (or the students' beliefs about the acceptability of aggression). These authors reported that injunctive norms predicted a change in aggression, but descriptive norms did not predict students' levels of aggression in the future. These findings suggest that classmate's beliefs about aggression not only influenced but also had direct effects on aggressive student behaviors overtime. Salmivalli and Voeten (2004) also found that classroom contexts have a substantial effect on students' aggressive behaviors. These two studies provide researchers and school personnel more evidence to target group (or classmate) climate in order to decrease bullying and victimization.

Students' perception of classmate support may affect their bullying roles as well. For instance, Demaray and Malecki (2003b) found that victims and bully-victims reported receiving significantly less peer support than the uninvolved comparison group. However, these groups also placed higher importance on peer support than bullies (Demaray & Malecki, 2003b). These findings are troublesome because students who realize deficits between the importance and frequency of support are more at risk for negative outcomes. Interestingly, when victims and bully-victims reported high levels of peer support, they also experienced more anxiety/depression (Holt & Espelage, 2007). Students in both bullying roles, victims in particular, may experience more social difficulties than students in other roles, which may explain these findings. According to Holt and Espelage (2007), bullies did not differ in their perception of peer support from uninvolved youth. However, Demaray and Malecki (2003b) reported that bullies perceived lower levels of support from parents, school personnel, and their classmates. These



opposing conclusions could have been an artifact of differing conceptualizations of peer support. Finally, defenders have been found to perceive higher levels of classmate and close friend support compared to victims (Summers & Demaray, 2010 as cited in Demaray, Malecki, Jenkins, & Westermann, 2012). Overall, uninvolved youth reported the highest levels of support from all sources when compared to other bullying roles (Holt & Espelage, 2007).

There may be developmental implications concerning the importance of classmate support on bullying and victimization. Previous research as suggested that classroom norms influenced preadolescents and adolescents more than younger grades (Furman & Buhrmester, 1992; Salmivalli & Voeten, 2004). Furman and Buhrmester (1992) found that the importance of classmates and close friends increased between the fourth and tenth grade levels. Furthermore, Costanzo and Shaw (1996) observed a peak in peer pressure and conformity in students ranging from eleven to thirteen years of age. These findings are consistent with developmental theorists assertion that the influence of social networks significantly grows as students transition into their adolescent years (Davies, 2011; Meschke, Peter, & Bartholomae, 2012).

Peer support has been linked to internalizing and externalizing problems in children and adolescents. Studies have suggested that there is a negative relationship between perceived social support and internalizing symptoms (Demaray, & Malecki, 2002; Herman-Stahl & Petersen, 1996). Therefore, students who report higher levels of perceived classmate support will experience fewer internalizing problems (e.g., depression, anxiety, stress, etc.) than peers who perceive lower levels of support from their classmates. According to Herman and Petersen (1996), there was a buffering effect between stress and depression as well. These findings suggest that isolated students will have little practice in developing coping styles and will be unable to use social support in times of stress. Rueger et al. (2008) found that classmate support was highly correlated with student psychological adjustment. However, these authors were not able to conclude that classmate support uniquely predicted psychological adjustment. Other researchers have also found that classmate support is significantly related to self-concept, self-image, and adaptive skills (Demaray & Malecki, 2002; Demaray et al., 2005). Finally, peer support has been associated with academic outcomes, school attendance rates, and maladjustments (Tanigawa et al., 2011).

Researchers have also investigated whether there were sex differences in regards to perceived peer support. Several studies have shown that girls report higher levels of perceived classmate support when

compared to boys (Colarossi & Eccles, 2003; Furman & Buhrmester, 1992; Holt & Espelage, 1997). In fact, boys were three times more likely to report a lack of quality friendships among their peers compared to their female classmates (Frey & Rothlisberger, 1996). According to Colarossi (2001), female adolescents preferred receiving support from peers compared to adults, whereas boys did not indicate a preference for one or the other. Overall, there seems to be an agreement that girls are more likely to report higher levels of peer support than their male counterparts.

Peer support may also uniquely predict certain student outcomes. For instance, in their longitudinal study, Rueger et al. (2008) found that classmate support predicted lower depressive symptoms and moderately positive school attitudes for boys but not for girls. This finding is interesting given the evidence that suggests boys perceive lower levels of peer support than their female counterparts. Rueger et al. (2008) also found that classmate support predicted higher conduct problems and lower social skills for girls, but was not a unique predictor for boys. This may be problematic because girls have reported higher levels of classmate support, which might increase the number of conduct problems observed in girls

#### **Social Support and Victimization.**

Previous research has given substantial evidence that bullying is related to negative outcomes (Kochenderfer & Ladd, 1996; Prinstein et al., 2001). Researchers have also reported negative correlations between social support and bullying/victimization (Demaray & Malecki, 2003b). However, the relationship between these three variables (bullying/victimization, negative outcomes, and social support) was unclear. Therefore, researchers began to investigate the association between these constructs. Results from these studies can help determine which sources of social support will best serve children within different bullying roles. Demaray and Malecki (2003b) wrote:

Thus, understanding the relationship between social support and bullying in schools has many important implications. School psychologists and educators need to know what contextual factors may be related to bullying behavior in schools so that potential interventions can be developed, and schools can aim to create a climate that supports victims of bullying and discourages the occurrence of bullying. (p. 473)

Generally, social support research is considered beneficial to both victims and bullies; however, that may not necessarily be the case. Understanding the relationship between these variables may increase

defending behaviors as well, which will hopefully decrease bullying behaviors and create a more positive school environment for all students.

Researchers have conceptualized two models regarding the relationship between these variables: the main effect and the stress-buffering model (Cohen & Wills, 1985; Davidson & Demaray, 2007). The main effect model, also referred to as the blanket of support model, assumes that social support is needed regardless of the presence or absence of stressors (Davidson & Demaray, 2007). In other words, the main effect model describes social support as a mediator. This model emphasized the social aspect of human interactions and how an individual's social relationships are tied to observed behaviors and overall mental health. Also, the predictability and stability of support within this model may be the mechanism that improves the individual's psychological well-being (Cohen & Wills, 1985). In contrast, the stress-buffering model believes that support is only necessary in stressful situations (Davidson & Demaray, 2007). This model describes social support as a moderator between victimization and negative outcomes. Thus, only in the presence of multiple stressors does the individual begin to experience negative outcomes; a single stressor does not place undue stress on their coping skills (Cohen & Wills, 1985).

Davidson and Demaray (2007) suggested that, in a stressful situation, individuals may conduct a primary and secondary appraisal effect. The primary appraisal occurs when individuals consider whether they are receiving enough support to help them through the problem. During the secondary appraisal, individuals must deal with the wealth of support they will receive or the inefficiencies that will make coping with the problem more difficult. If the individuals are dealing with a lack of support, they are more likely to experience negative outcomes.

Researchers have presented different conceptualizations about the influence of social support on bullying/victimization and negative outcomes. Rigby (2000) suggested a mutual influence between social support and the frequency of bullying on the mental health of students. However, the author reported a significant correlation between support and bullying frequencies. The author noted that these correlations were significantly stronger for girls. Furthermore, Rigby (2000) concluded that teacher support was positively related to mental health in adolescent students. Interestingly, previous research has found that students are less likely to seek out support from their teachers (Rueger et al., 2010). Although teachers may

not be the primary source of support for adolescents, evidence has suggested that they have a significant effect on their psychological well-being (Colarossi & Eccles, 2003; Reddy et al., 2003).

Social support has also been considered as a mediator between victimization and negative outcomes. When mediation occurs, the intervening variable explains the relationship between the remaining two variables; when that variable is removed, the relationship disappears (Baron & Kenny, 1986). Pouwelse, Bolman, and Lodewijkx (2011) investigated social support as a mediator between victimization and depressive symptoms. These authors indicated that social support was only a mediator between the two variables for the victim group. Malecki et al. (2008) also considered social support as a mediator between victimization and several outcomes. These authors found that social support had a mediating effect between victimization and school maladjustment. For example, victims, who lacked social support, would experience higher levels of dissatisfaction with school. Specifically, teacher support played a significant role in this association (Malecki et al., 2008). However, social support was only a partial mediator between victimization and other outcomes, which included clinical maladjustment, personal adjustment, and other emotional symptoms (Malecki et al., 2008). Classmate support played a particularly important role in these partial mediations. Therefore, victimized students, who seek support from their classmates, may decrease future negative outcomes. However, as suggested by previous research, support from their peers may not be sufficient (Hensen et al. 2000). It is important to note that the sample population in this study had a Latino majority, thus generalizing these findings is not recommended. Although, with a larger and more demographically representative sample, Wang, Iannotti, and Luk (2011) found similar results when they considered classmate support as a mediator.

Lastly, researchers have investigated social support as a moderator between victimization and negative outcomes. Moderation describes a variable that influences the strength of the relationship between the remaining variables (Baron & Kenny, 1986). In contrast to mediation, when the moderator is removed, the association between the remaining constructs is still present. For instance, without the presence of support from a teacher or classmate, the frequency of victimization may still influence the student's social/emotional outcomes. Although Pouwelse et al. (2011) found that social support was not a moderator between victimization and depressive symptoms, other studies have contradicted their conclusion. For instance, Flaspohler, Elfstrom, Vanderzee, and Sink (2009) reported that teacher and peer support buffered

the effects of victimization on students' quality of life. These authors further indicated that students who received both teacher and peer support experienced more positive outcomes. There were weaker associations between these three constructs when students only perceived high peer support with lower levels of support from their teachers (Flaspohler et al., 2009). Interestingly, if students only reported high levels of teacher support, there was no association between the three variables (Flaspohler et al., 2009). These findings may indicate that the association between these variables changes across the sources of support. Davidson and Demaray (2007) provided further evidence of this hypothesis. The authors reported that parent support moderated the effects between victimization and internalizing problems for girls, whereas teacher, classmate, and school support served as moderators for boys. However, Davidson and Demaray (2007) did not find a moderating effect when they considered students' externalizing problems. Interestingly, girls who perceived higher levels of classmate support were more likely to experience externalizing issues (Davidson & Demaray, 2007). Further research is needed to better understand the influence of social support between bullying/victimization and internalizing/externalizing problems.

### **The Current Study**

There has been continued interest in the triadic relationship between victimization, internalizing and externalizing disorders, and sources of social support (Cohen & Wills, 1985; Davidson & Demaray, 2007; and Demaray & Malecki, 2003b). Additional research is needed to increase researchers and practitioners' knowledge on this matter. The main goal of this study was to investigate the influence of teacher and peer social support on the relationship between victimization and students' social/emotional outcomes

Four hypotheses were proposed in order to achieve this goal. The first research question was: Were there significant differences in the frequency of peer and teacher support between intermediate and middle school students? It was hypothesized that intermediate students (e.g., third through fifth grade) would report more teacher support than peer support, while middle school (e.g., sixth through eighth grade) students will report more peer support than teacher support (Reddy et al., 2003; Salmivalli & Voeten, 2004).

The second research question was: Did peer and/or teacher support buffer the relationship between victimization and social/emotional problems? It was hypothesized that peer support would buffer the

relationship between victimization and social/emotional outcomes, for the total sample (Flaspohler et al., 2009; Reddy et al., 2003). It was also hypothesized that teacher support would buffer the relationship between victimization and social/emotional problems, for the total sample (Flaspohler et al., 2009). Victims who reported higher levels of peer support would also indicate lower levels of internalizing problems, and similar trends were predicted for teacher support.

The third research question was: Did peer and/or teacher support buffer the relationship between victimization and social/emotional problems for boys and/or girls? It was hypothesized that peer support would not buffer the relationship between victimization and social/emotional problems for either boys or girls (Holt & Espelage, 2007; Kaltiala-Heino et al., 2000). However, teacher support would buffer the relationship between victimization and social/emotional problems for boys only (Davidson & Demaray, 2007).

The fourth research question was: Did peer and/or teacher support buffer the relationship between victimization and social/emotional problems for intermediate and/or middle school students? It was hypothesized that, within the intermediate school, teacher support would buffer the relationship between victimization and social/emotional problems. However, peer support would buffer the relationship between victimization and social/emotional outcomes in the middle school sample (Costanzo & Shaw, 1996; Furman & Buhrmester, 1992; Salmivalli & Voeten, 2004).

## Methods

### Participants

Participants for the current study included a total of 649 students enrolled in the Illinois public school system. Data were collected at two schools (one intermediate school, or grades three through five, and one middle school, or grades sixth through eighth) within the same rural Illinois school district (See *Table 1* for the descriptive statistics). In the total sample, 69 students were enrolled in Special Education programs and 57 students received Title 1 services, while 522 students were in the general education setting. The intermediate school sample consisted of 311 students, with 104 in third grade, 114 in fourth grade, and 99 in fifth grade. The majority of students (96.4%) enrolled at the intermediate school were identified as Caucasian and 53.4% of students were classified as low-income (e.g., eligible to receive free or reduced lunch). At the middle school, the sample consisted of 338 students, with 120 in sixth grade, 106

in seventh grade, and 104 in eighth grade. The majority of students (97.1%) enrolled at the middle school were classified as Caucasian, while 53.1% of students' families were considered low-income. There were a total of 329 boys that participated in the sample, with 150 at the intermediate school and 179 at the middle school. Finally, there were a total of 319 girls in the sample, with 161 girls at the intermediate school and 158 at the middle school.

### **Procedures**

The extant data were collected as part of a school-wide evaluation of social-emotional issues in the schools. Parents were notified of the evaluation through an informational letter sent home with each student; no parents denied their child's participation. Eastern Illinois University IRB approval was obtained to use the dataset for research purposes. No identifying information was contained in the dataset. Students completed surveys one day in the fall. At the intermediate school, students stayed in their classrooms during PE to complete surveys. Middle school students completed surveys during their PE class in a large group in the gym. Research assistants were available to answer questions during both data collections.

### **Measures**

Three self-report measures were used to collect data on victimization, social/emotional problems, and student perceptions of perceived social support from teachers and peers. The Bullying Participant Behavior Questionnaire (BPBQ) is a 50 item rating scale used to assess five different bullying participant behaviors associated with each bullying role: Bully, Assistant, Victim, Defender, and Outsider (Demaray et al., in press). Each participant role contains 10 items. In the current study, the victim scale was the only subscale used. The Victim subscale assesses the frequency of victimization that the student has experienced within the last 30 days. Students were provided with a 5-point rating scale ( $0 = \text{Never}$ ,  $1 = 1 \text{ to } 2 \text{ times}$ ,  $2 = 3 \text{ to } 4 \text{ times}$ ,  $3 = 5 \text{ to } 6 \text{ times}$ ,  $4 = 7 \text{ or more times}$ ) and responded to statements such as: "I have been called names.", "I have been purposefully left out of something.", and "People have told lies about me." The total frequency score was used in the analyses. Possible scores for the Total Victim Frequency score can range from 0 (all items were rated as a 0, or never occurred in the past 30 days), to 40 (all items were rated as a 4, or occurred 7 or more times in the past 30 days).

Demaray et al. (2014) reported evidence of reliability and validity for the BPBQ on a sample of 800 middle school students. Exploratory factor analysis results supported the five-factor structure of the

BPBQ. The EFA results indicated that the five factors accounted for 60% of the variance with item loadings ranging from .494 to .868. Confirmatory factor analysis also resulted in an acceptable fit for the proposed structure. Internal consistency alpha coefficients were .935 for the Victim subscale, with item to subscale correlations ranging from .729 to .837.

The Behavioral and Emotional Screen System (BESS) – Student Form was used to collect data on student’s social/emotional problems (Kamphaus & Reynolds, 2007). The BESS Student form is a 30-item screener that was intended to measure self-reported risk levels for behavioral and emotional problems. Students completed each item using a 4-point rating scale (e.g., *never, sometimes, often, almost always*). The BESS Student Form was intended to help practitioners screen students who may need additional assessments or services. Student’s *T* scores are associated with the following risk levels: 20-60 (normal level of risk), 61-70 (elevated risk level), and a score of 71 or higher indicates an extremely elevated level of risk (Kamphaus & Reynolds, 2007).

Dowdy et al. (2011) performed an exploratory and confirmatory factor analysis of the BESS structure. Results suggested a four-factor structure (e.g., Personal Adjustment, Inattention/Hyperactivity, Internalizing, and School Problems). Results from two confirmatory factor analyses from separate samples also suggested that a four-factor structure was the best fit for the BESS student form. Under this model, each subscale was allocated a different number of items: internalizing problems correlated with 10 items, personal adjustment was defined by 8 items, inattention/hyperactivity claimed 5 items, and school problems had 4 items. Item to subscale correlation was: -.742 to -.358 for internalizing problems, .369 to .676 for personal adjustment, .430 to .621 for inattention/hyperactivity, and .446 to .836 for school problems. The internalizing problems, personal adjustment, and school problems frequency scores were used during analyses. Possible scores for the internalizing problems scale can range from 10 (all items were rated as a 1, or never occurring) to 40 (all items were rated as a 4, or almost always occurring). Possible scores for the personal adjustment scale can range from 8 (all items were rated as a 1, or never occurring) to 32 (all items were rated as a 4, or almost always occurring). Finally, possible scores for the school problems scale can range from 4 (all items were rated as a 1, or never occurring) to 16 (all items were rated as a 4, or almost always occurring).



The Child and Adolescent Social Support Scale (CASSS) was used to measure social support (Malecki & Demaray, 2002). The CASSS consists of 60 items that measure perceived social support from five different sources: Parents, Teachers, Classmates, Close Friend, and School. Each subscale consists of 12 items that measure the four different types of social support (e.g., emotional, informational, appraisal, and instrumental). In the current study, students completed the teacher and classmate support scales. The CASSS also measures the frequency and importance of each item. Students will rate the frequency of each item using a 6-point scale ranging from 1 (*never*) to 6 (*always*). They also indicated the importance of each item using a 3-point scale from 1 (*not important*) to 3 (*very important*). The total frequency scores for teacher and classmate were used during the analyses. Possible scores for teacher support can range from 12 (all items were rated as a 1, or never occurring) to 72 (all items were rated as a 6, or always occurring). Finally, possible scores for classmate support can range from 12 (all items were rated as a 1, or never occurring) to 72 (all items were rated as a 6, or always occurring).

Malecki and Demaray (2002) demonstrated evidence of reliability for the CASSS. Results from both exploratory and confirmatory factor analyses suggested that a five-factor model was the best fit. Item to subscale correlations are: .550 to .784 for teachers and .716 to .861 for classmates. Validity was examined by correlating students CASSS scores with scores from the Social Support Scale for Children (SSSC; Harter, 1985) and the Social Support Appraisals Scale (SSAS; Dubow & Ullman, 1989). The relationships between the CASSS and the SSC and the SSAS were significant,  $r = .55$ ,  $p < .001$ , and  $r = .56$ ,  $p < .001$ , respectively (Malecki, Demaray, & Elliott, 2000).

### **Statistical Design**

To answer Research Question 1, a one-way analysis of variance was conducted with classmate/teacher support and grade level (intermediate or middle school) as the independent variables and frequency of victimization as the dependent variable (as measured by the BPBQ).

To answer Research Question 2-4, a series of multiple regression analyses were conducted with classmate or teacher support, victimization, and the interaction between them predicting social/emotional outcomes (as measured by the BESS). Predictor variables were centered prior to use in the multiple regression analyses, as recommended by Aiken and West (1991). Because there were two moderators and four dependent variables (BESS Total, BESS Personal Adjustment, BESS Internalizing Problems, and

BESS School Problem scores), there were eight analyses for each question to test all combinations of the interaction terms and dependent variables.

A two-step regression was conducted for all eight combinations. The predictors in the first step were the main effects of sources of social support (classmate or teacher) and victimization. In the second step, the interaction term was added. To control for Type I errors in the analyses for BESS subscale scores, a family-wise Bonferroni correction was made, which resulted in a  $p$ -value of .02. Therefore, analyses with a  $p$ -value less than or equal to .02 were considered to be significant. Furthermore, significant interaction terms in Step 2 required follow-up analyses. Post hoc testing of significant interaction terms consisted of testing the simple slopes of the regression lines via ModGraph (Jose, 2003). Means were plotted at high, moderate, and low levels for both the victimization and social support terms.

## Results

### Preliminary Analyses

**Research Question 1.** To test the first research question (Were there significant differences in the frequency of peer and teacher support between intermediate and middle school students?), two one-way analysis of variance (ANOVA) were conducted on the frequency of Classmate Support. At an alpha of .05, there were no significant differences in the frequency of Classmate Support reported by intermediate and middle school students,  $F(1, 652) = 2.81, p = .09$ . An ANOVA was conducted on the frequency of Teacher Support. At an alpha level of .05, there were no significant differences in the frequency of Teacher Support reported by intermediate and middle school students,  $F(1, 652) = .033, p = .86$ . These results contradicted the hypotheses.

**Research Question 2.** To test the second research question (Did peer and/or teacher support buffer the relationship between victimization and social/emotional problems?), a multiple regression analysis was conducted. It was predicted that both Classmate and Teacher Support would moderate the relationship between victimization and all social/emotional outcomes (See Table 2 for regression results).

**Classmate Support.** The analyses for Victimization and Classmate Support showed that both Step 1,  $F(2, 647) = 46.15, p < .001$ , and Step 2,  $F(3, 646) = 34.05, p < .001$ , were significant in the multiple regressions with the BESS Total Score and accounted for 12% and 14% of the variance, respectively. At each step, Victimization and Classmate Support were significant predictors of the BESS Total. In step 2,

the interaction term was also significant. Since the interaction was significant, post hoc tests were performed to test the significance of the simple slopes. The simple slopes for moderate levels of victimization were significant: high,  $t(647) = .18, p = .85$ ; moderate,  $t(647) = 2.11, p = .03$ ; low,  $t(647) = .11, p = .91$ . Students with moderate levels of Victimization and high Classmate Support reported significantly fewer behavior and emotional concerns than those with moderate and low levels of classmate support.

Furthermore, Step 1,  $F(2, 647) = 9.82, p < .001$ , and Step 2  $F(3, 646) = 9.06, p < .001$  were significant in the multiple regression analyses for the BESS Personal Adjustment, and accounted for 3% and 4% of the variance, respectively. At Step 1 and Step 2, both Victimization and Classmate Support were significant individual predictors of Personal Adjustment and the interaction term in Step 2 was also significant. For the post hoc tests regarding students' BESS Personal Adjustment score were: high,  $t(647) = .08, p = .93$ ; moderate,  $t(647) = .87, p = .38$ ; low,  $t(647) = .05, p = .95$ . These results indicated that the interaction was no longer significant when the data were further divided.

For the BESS Internalizing Problems, Step 1,  $F(2, 647) = 100.83, p < .001$ , and Step 2,  $F(3, 646) = 69.09, p < .001$ , of the multiple regression analysis were significant and explained 24% of the variance in each step; Victimization and Classmate Support were significant individual predictors at each step however, the interaction term in Step 2 was not significant. For the BESS School Problems, both Step 1,  $F(2, 647) = 33.79, p < .001$ , and Step 2,  $F(3, 646) = 23.73, p < .001$ , of the multiple regression analysis were significant and accounted for 9% and 10% of the variance, respectively. Although Victimization and Classmate Support were significant individual predictors at each step, the interaction term in Step 2 was not significant.

**Teacher Support.** The analyses for Victimization and Teacher Support showed that both Step 1,  $F(2, 647) = 36.13, p < .001$ , and Step 2,  $F(3, 646) = 24.47, p < .001$ , were significant in the multiple regression with the BESS Total score and accounted for 10% of the variance at each step. Although Victimization was a significant individual predictor in each step, Teacher Support was only significant predictor in Step 2. Furthermore, the interaction term in Step 2 was not significant.

For the BESS Personal Adjustment, Step 1,  $F(2, 647) = 7.32, p < .001$ , and Step 2,  $F(3, 646) = 5.25, p < .001$ , were significant and accounted for 2% of the variance in each step. Although Victimization

was a significant individual predictor in each step, Teacher Support was not a significant predictor at either step. Furthermore, the interaction term in Step 2 was not significant.

For the BESS Internalizing Problems, Step 1,  $F(2, 647) = 82.32, p < .001$ , and Step 2,  $F(3, 646) = 55.19, p < .001$ , were significant and accounted for 20% of the variance in each step; however, the interaction term in Step 2 was not significant. Victimization and Teacher Support were significant individual predictors in both steps.

For the BESS School Problems, Step 1,  $F(2, 647) = 37.11, p < .001$ , and Step 2,  $F(3, 646) = 24.73, p < .001$ , were significant and accounted for 10% of the variance in each step. Although the interaction term in Step 2 was not significant, Victimization and Teacher Support were significant individual predictors in both steps.

**Research Question 3.** To answer the third research question (Did peer and/or teacher support buffer the relationship between victimization and social/emotional problems for boys and/or girls?) a multiple regression analysis was conducted with victimization and classmate or teacher support and an interaction term as predictors of social/emotional outcomes. The sample was split by gender, therefore separate regression analyses were conducted for the boys- and girls-only samples. It was predicted that classmate support would not buffer the relationship between victimization and negative social/emotional outcomes for both boys and girls. However, it was also predicted that teacher support would buffer the relationship between the remaining variables for boys only (See Tables 3 and 4 for regression results).

**Classmate Support for Boys.** For boys, the relationship between Victimization and Classmate Support was not statistically significant for all four dependent variables. In regards to the BESS Total, Step 1,  $F(2, 326) = 21.35, p < .001$ , and Step 2,  $F(3, 325) = 14.79, p < .001$ , were significant and accounted for 12% of the variance in each step. The main effects of both independent variables were significant at each step; however, the interaction term in Step 2 was not significant. For the BESS Personal Adjustment, Step 1,  $F(2, 326) = 2.92, p = .05$ , and Step 2,  $F(3, 325) = 2.33, p = .07$ , were not significant, and accounted for 2% of the variance in each step. The main effect of Classmate Support was not significant in either step, but Victimization was a significant individual predictor in both steps. For the BESS School Problems scores, Step 1,  $F(2, 326) = 19.08, p < .001$ , and Step 2,  $F(3, 325) = 12.68, p < .001$ , were significant and accounted for 10% of the variance in each step. The main effect of Classmate Support was not significant in both

steps, but Victimization was significant. Finally, for the BESS Internalizing Problems scores, Step 1,  $F(2, 326) = 42.50, p < .001$ , and Step 2,  $F(3, 325) = 29.05, p < .001$ , were significant and accounted for 21% of the variance in each step. Victimization and Classmate Support were both significant individual predictors in each step; however, the interaction term in Step 2 was not significant.

**Classmate Support for Girls.** For girls, the relationship between Victimization and Classmate support was statistically significant in the multiple regression analyses for the BESS Total. Both Step 1,  $F(2, 317) = 25.03, p < .001$ , and Step 2,  $R^2 = .16, F(3, 316) = 20.02, p < .001$ , were significant and accounted for 14% and 16% of the variance, respectively. In each step, Victimization and Classmate Support were significant individual predictors. Furthermore, the interaction term in Step 2 was significant. Since the interaction was significant, post hoc tests were performed to test the significance of the simple slopes. The simple slopes concerning the BESS Total were: high,  $t(317) = .17, p = .87$ ; moderate,  $t(317) = .96, p = .34$ ; low,  $t(317) = .06, p = .95$ . These results indicated that the interaction was no longer significant.

Furthermore, Step 1,  $F(2, 317) = 7.66, p < .001$ , and Step 2,  $F(3, 316) = 8.11, p < .001$ , were significant in the multiple regression analyses for the BESS Personal Adjustment and accounted for 5% and 7% of the variance, respectively. Although Classmate Support was a significant individual predictor in each step, Victimization was only significant in Step 2. Additionally, the interaction term in Step 2 was significant. For the post hoc tests, the simple slopes concerning the BESS Personal Adjustment were: high,  $t(317) = .07, p = .94$ ; moderate,  $t(317) = .28, p = .78$ ; low,  $t(317) = .001, p = 1.00$ . These results indicated that the interaction term was no longer significant.

For the BESS School Problems, both Step 1,  $F(2, 317) = 16.79, p < .001$ , and Step 2,  $F(3, 316) = 13.35, p < .001$ , were significant and accounted for 10% and 11% of the variance, respectively. Victimization and Classmate Support were significant individual predictors in both steps. Furthermore, the interaction term in Step 2 was significant. For the post hoc tests, the simple slopes concerning BESS School Problems were: high,  $t(317) = .02, p = .98$ ; moderate,  $t(317) = .11, p = .91$ ; low,  $t(317) = .007, p = .99$ . These results suggest that the interaction between the independent variables was no longer significant.

For the BESS Internalizing Problems, both Step 1,  $F(2, 317) = 58.00, p < .001$ , and Step 2,  $F(3, 316) = 39.98, p < .001$ , were significant and accounted for 27% of the variance in each step. Victimization

and Classmate Support were significant individual predictors in each step; however, the interaction term in Step 2 was not significant.

**Teacher Support for Boys.** For boys, the relationship between Victimization and Teacher Support was not statistically significant for all four dependent variables. For the BESS Total, both Step 1,  $F(2, 326) = 18.55, p < .001$ , and Step 2,  $F(3, 325) = 12.88, p < .001$ , were significant and accounted for 10% of the variance in each step. Although Victimization was a significant individual predictor in each step, Teacher Support was not a significant predictor. Furthermore, the interaction term in Step 2 was not significant.

For the BESS Personal Adjustment, both Step 1,  $F(2, 326) = 3.16, p = .04$ , and Step 2,  $F(3, 325) = 2.66, p = .05$ , were not significant and accounted for 2% of the variance in each step. Victimization was a significant individual predictor. Teacher Support was not a significant predictor in either step. Furthermore, the interaction term in Step 2 was not significant.

For the BESS School Problems, both Step 1,  $F(2, 326) = 21.32, p < .001$ , and Step 2,  $F(3, 325) = 14.17, p < .001$ , were significant and accounted for 12% of the variance in each step. Victimization and Teacher Support were significant individual predictors in each step; however, the interaction term in Step 2 was not significant.

Finally, for the BESS Internalizing Problems, both Step 1,  $F(2, 326) = 36.45, p < .001$ , and Step 2,  $F(3, 325) = 24.75, p < .001$ , were significant and accounted for 18% and 19% of the variance, respectively. Although Victimization was a significant individual predictor in each step, Teacher Support was not significant in both steps. Furthermore, the interaction term in Step 2 was not significant.

**Teacher Support for Girls.** For girls, the relationship between Victimization and Teacher Support was not statistically significant for all four dependent variables. For the BESS Total, both Step 1,  $F(2, 317) = 17.78, p < .001$ , and Step 2,  $F(3, 316) = 11.97, p < .001$ , were significant and accounted for 10% of the variance in each step. Victimization was a significant individual predictor in both steps; however, Teacher Support was not significant in either step. Furthermore, the interaction term in Step 2 was not significant.

In terms of the BESS Personal Adjustment, both Step 1,  $F(2, 317) = 3.71, p = .03$ , and Step 2,  $F(3, 316) = 2.54, p = .06$ , were not significant in the multiple regression analyses and accounted for 2% of the variance in each step. Teacher Support was not a significant predictor in both steps; however, Victimization was significant in each step. Additionally, the interaction term in Step 2 was not significant.

For the BESS School Problems, both Step 1,  $F(2, 317) = 17.10, p < .001$ , and Step 2,  $F(3, 316) = 11.49, p < .001$ , were significant and accounted for 10% of the variance in each step. Although Victimization and Teacher Support were significant individual predictors in both steps, the interaction term in Step 2 was not significant.

Finally, in terms of the BESS Internalizing Problems scores, both Step 1,  $F(2, 317) = 44.84, p < .001$ , and Step 2,  $F(3, 316) = 29.91, p < .001$ , were significant and accounted for 22% of the variance in each step. Although Victimization was a significant individual predictor in both steps, Teacher Support was only significant in Step 2. Furthermore, the interaction term in Step 2 was not significant.

**Research Question 4.** To answer the fourth research question (Did peer and/or teacher support buffer the relationship between victimization and social/emotional problems for intermediate and/or middle school students?), separate multiple regression analyses was conducted for intermediate and middle school students with centered victimization and classmate or teacher support variables, as well as an interaction term to predict negative social/emotional outcomes.

*Classmate Support for Intermediate Students.* At the intermediate level, the relationship between Victimization and Classmate Support was not significant for all four dependent variables. For the BESS Total, both Step 1,  $F(2, 309) = 13.76, p < .001$ , and Step 2,  $F(3, 308) = 9.83, p < .001$ , were significant and accounted for 8% and 9% of the variance, respectively. Although Classmate Support was not a significant individual predictor at both steps, Victimization was significant. Furthermore, the interaction term in Step 2 was not significant.

For the BESS Personal Adjustment, both Step 1,  $F(2, 309) = 16.45, p < .001$ , and Step 2,  $F(3, 308) = 11.88, p < .001$ , were significant and accounted for 10% of the variance in each step. Classmate Support was a significant individual predictor at both steps; however, Victimization was only significant in Step 2. The interaction term in Step 2 was not significant.

In regards to the BESS Internalizing Problems, both Step 1,  $F(2, 309) = 50.13, p < .001$ , and Step 2,  $F(3, 308) = 33.49, p < .001$ , were significant and accounted for 24% and 25% of the variance, respectively. Victimization and Classmate Support were significant individual predictors at both steps; however, the interaction term in Step 2 was not significant.

Finally, for the BESS School Problems, Step 1,  $F(2, 309) = 4.32, p = .01$ , was significant in the multiple regression analysis and accounted for 2% of the variance. However, Step 2,  $F(3, 308) = 2.87, p = .04$ , was not significant and accounted for 2% of the variance. Victimization was a significant individual predictor in both steps; however, Classmate Support was not significant in either step. Additionally, the interaction term in Step 2 was not significant.

***Classmate Support for Middle School Students.*** For middle school students, the relationship between Victimization and Classmate Support was not significant for all four dependent variables. For the BESS Total, both Step 1,  $F(2, 335) = 189.92, p < .001$ , and Step 2,  $F(3, 334) = 126.57, p < .001$ , were significant in the multiple regression analysis and accounted for 53% of the variance in each step. Victimization and Classmate Support were significant individual predictors in both steps. However, the interaction term in Step 2 was not significant.

In regards to BESS Personal Adjustment, both Step 1,  $F(2, 335) = 131.082, p < .001$ , and Step 2,  $F(3, 334) = 87.80, p < .001$ , were significant and accounted for 44% of the variance in each step. Although the interaction term in Step 2 was not significant, Victimization and Classmate Support were significant individual predictors in both steps.

For the BESS Internalizing Problems, both Step 1,  $F(2, 335) = 169.45, p < .001$ , and Step 2,  $F(3, 334) = 114.05, p < .001$ , were significant and accounted for 50% and 51% of the variance, respectively. Victimization and Classmate Support were significant individual predictors at both steps; however, the interaction term in Step 2 was not significant.

Finally, for the BESS School Problems, both Step 1,  $F(2, 335) = 38.51, p < .001$ , and Step 2,  $F(3, 334) = 25.61, p < .001$ , were significant in the multiple regression analyses and accounted for 19% of the variance in each step. Although Victimization and Classmate Support were significant individual predictors in both steps, the interaction term in Step 2 was not significant.

***Teacher Support for Intermediate Students.*** For intermediate students, the relationship between Victimization and Teacher Support was not significant for all four dependent variables. For the BESS Total, both Step 1,  $F(2, 309) = 14.10, p < .001$ , and Step 2,  $F(3, 308) = 10.32, p < .001$ , were significant in the multiple regression analysis and accounted for 8% and 9% of the variance, respectively. Although



Teacher Support was not a significant predictor in both steps, Victimization was significant. Furthermore, the interaction term in Step 2 was not significant.

In regards to the BESS Personal Adjustment, both Step 1,  $F(2, 309) = 23.85, p < .001$ , and Step 2,  $F(3, 308) = 17.67, p < .001$ , were significant and accounted for 13% and 15% of the variance, respectively. Although Victimization was only a significant individual predictor in Step 2, Teacher Support was significant in both steps. The interaction term in Step 2 was not significant.

For BESS Internalizing Problems, both Step 1,  $F(2, 309) = 46.61, p < .001$ , and Step 2,  $F(3, 308) = 31.18, p < .001$ , were significant in the multiple regression analyses and accounted for 23% of the variance in each step. Although the interaction term in Step 2 was not significant, Victimization and Teacher Support were significant individual predictors in both steps.

Finally, for the BESS School Problems, both Step 1,  $F(2, 309) = 4.70, p = .01$ , and Step 2,  $F(3, 308) = 3.22, p = .02$ , were significant and accounted for 3% of the variance in each step. Although Teacher Support was not a significant individual predictor in both steps, Victimization was significant. Furthermore, the interaction term in Step 2 was not significant.

***Teacher Support for Middle School Students.*** For the middle school students, the relationship between Victimization and Teacher Support was not significant for all four dependent variables. In regards to the BESS Total, both Step 1,  $F(2, 335) = 136.05, p < .001$ , and Step 2,  $F(3, 334) = 90.51, p < .001$ , were significant in the multiple regression analysis and accounted for 45% of the variance in each step. Victimization and Teacher Support were significant individual predictors in both steps; however, the interaction term in Step 2 was not significant.

For the BESS Personal Adjustment, both Step 1,  $F(2, 335) = 76.54, p < .001$ , and Step 2,  $F(3, 334) = 51.51, p < .001$ , were significant and accounted for 31% and 32% of the variance, respectively. Although the interaction term in Step 2 was not significant, Victimization and Teacher Support were significant individual predictors in both steps.

For the BESS Internalizing Problems, both Step 1,  $F(2, 335) = 127.67, p < .001$ , and Step 2,  $F(3, 334) = 85.27, p < .001$ , were significant and accounted for 43% of the variance in each step. Although the interaction term in Step 2 as not significant, the main effect of both independent variables were significant in each step.

Finally, for the BESS School Problems, both Step 1,  $F(2, 335) = 52.56, p < .001$ , and Step 2,  $F(3, 334) = 35.15, p < .001$ , were significant in the multiple regression analyses and accounted for 24% of the variance in each step. Victimization and Teacher Support were significant individual predictors in both steps; however, the interaction term in Step 2 was not significant.

### Discussion

The current study investigated the influence of social support, specifically classmate and teacher support, on the relationship between victimization and social/emotional outcomes. Previous research has indicated that higher levels of victimization are associated with negative social/emotional outcomes (e.g., depression, anxiety, psychosomatic symptoms, etc.; Kochenderfer & Ladd, 1996; Prinstein et al., 2001). Furthermore, researchers have reported negative correlations between victimization and social support (Demaray & Malecki, 2003).

Previous research has presented varying perspectives on this triadic relationship (Cohen & Wills, 1985; Davidson & Demaray, 2007). For instance, some researchers have reported social support as a mediator; in other words, students who perceived high levels of support, regardless of the presence or absence of bullying behaviors, also experienced more positive outcomes. In contrast, researchers have conceptualized social support as a moderator, or the stress-buffering model, between victimization and social/emotional outcomes. This model proposes that social support is most helpful when students experience stress, such as being bullied.

It was hypothesized that there would be significant differences between classmate and teacher support at the intermediate and middle school levels. However, in the current study, no significant differences were found in the sample. These findings contradicted the current literature which suggested that elementary school students report higher levels of teacher support, while middle school students report higher levels of classmate support (Reddy et al., 2003; Salmivalli & Voeten, 2004). Upon investigating the descriptive statistics, students at both levels reported similar frequency of teacher support (less than a point difference between means), and less than a two-point mean difference in the frequency of classmate support (See Table 1). The similarity between the frequency of teacher and classmate support may have decreased the probability of significant group differences. Overall, the frequency of teacher and classmate support at both levels were high when considering the range of possible scores available on the CASSS

subscales. Previous researchers have reported the means for teacher and classmate support, as measured by the CASSS. The means in the current study were approximately eight points higher than those reports by Davidson and Demaray (2007). When compared to the means reported in the Demaray and Malecki (2002) article, the means in the current study were approximately 14 points higher. Also, the data for the current study were collected in a small, rural community. Previous research has suggested that community cohesion may influence the relationship between victimization and internalizing behaviors, such as substance abuse (Fagan, Wright, & Pinchevsky, 2014). Therefore, participants in the current study may have perceived high levels of community cohesion, which could have influenced current results.

The second research question investigated the relationship between social support (classmate or teacher), victimization and social/emotional outcomes. First, it was hypothesized that classmate support would moderate the relationship between the two remaining variables. In the current study, results indicated that classmate support was a moderator in the triadic relationship. Therefore, victims of bullying, who also reported higher frequencies of classmate support, experienced more positive social emotional outcomes, as measured by the BESS Total Score. When the simple slopes were analyzed, there was a significant difference between students' social/emotional outcomes when they reported moderate levels of victimization. Therefore, students who experienced moderate levels of victimization, with lower levels of classmate support, reported more negative social emotional outcomes than similar students who perceived moderate or high levels of classmate support.

In addition to these findings, the current study also deconstructed social/emotional outcomes into three subcategories: personal adjustment, internalizing problems, and school problems (as indicated by Dowdy et al, 2011). Results indicated that classmate support also predicted the relationship between victimization and personal adjustment, as measured by the BESS Personal Adjustment score. However, when the simple slopes were analyzed, the group differences were no longer significant. This finding may be attributed to the loss of variance when continuous variables are used to create dichotomous groups. Overall, these results contributed to the current literature, which has suggested that classmate support significantly influences internalizing problems and psychosocial adjustment for victims of bullying (Demaray et al., 2005; Rueger et al., 2008). The current study also contributed to the body of literature that hypothesized classmate support as a moderator (Flaspohler, Elfstrom, Vanderzee, & Sink, 2009).

It was also hypothesized that teacher support would moderate the relationship between victimization and social/emotional outcomes. However, current results indicated that teacher support was not a moderator. Flaspohler et al. (2009) found that teacher support moderated the relationship between victimization and student's quality of life. Therefore, current results conflicted with researchers' conclusions in the previous literature. The range of teacher support was large in the current sample (ranging from 12 to 72); however, the mean for the total sample was high (See Table 1). Current results may have been influenced by the minimal variability within the sample.

The third research question investigated sex differences in the relationship between the three variables, with separate analyses conducted for classmate and teacher support. Results indicated that classmate support moderated the relationship between victimization and social/emotional outcomes for girls; moderation was not found when scores from the boys-only sample were analyzed. Female victims, who reported low levels of classmate support, were more likely to report more negative social/emotional outcomes, as measured by the BESS Total score. When subcategories of social/emotional outcomes were investigated, classmate support also moderated the relationship between personal adjustment and school problems for girls, as measured by the BESS. Therefore, female victims who perceived low levels of classmate support were more likely to report negative self-images, dissatisfaction with parents and/or peers, and negative perceptions of their school experiences. Interestingly, when the simple slopes were analyzed for the significant interaction terms, there were no significant differences between low, moderate, and high victimization and classmate support groups. The mean for classmate support in the girls-only sample was high, which led to limited variability when the sample was further deconstructed into three categories. Overall, the current results contradicted the findings reported in the Davidson and Demaray (2007), who concluded that classmate support moderated the relationship between male victims and social/emotional outcomes, but not female victims. However, previous literature has suggested that girls report more classmate support than boys (Colarossi & Eccles, 2003; Furman & Buhrmester, 1992; Holt & Espelage, 1997). Girls also appear to prefer classmate support compared to support from adults (Colarossi & Eccles, 2003). The current study contributed to the body of literature, which has suggested the importance of classmate support on social/emotional outcomes for female victims. Further research is needed to understand the relationship between classmate support and female victims' psychosocial adjustment.

It was also hypothesized that teacher support would buffer the relationship between victimization and social/emotional outcomes for the boys-only sample. However, results suggested that teacher support did not moderate the relationship for either boys or girls. These results contradict a study conducted by Davidson and Demaray (2007), which indicated that teacher support was a moderator for boys-only. When the results were further analyzed for main effects, results suggested that teacher support was not significantly related to victimization and students' social/emotional outcomes for both the boys- and girls-only samples. These findings also contradict previous research that has suggested that teacher support was significantly related to student's social/emotional outcomes (Reddy et al., 2003; Salmivalli & Voeten, 2004). Rueger et al. (2010) suggested that girls perceived significantly more teacher support than boys, however, this article did not explore the triadic relationship between the variables discussed in the current study. Further research is needed to understand the influence of teacher support on victims' social/emotional outcomes.

Finally, the fourth research question investigated whether grade level differences impacted the relationship between these variables. Previous research has suggested that there were significant differences in the frequency of social support from various sources, when considering age (Reddy et al., 2003; Salmivalli & Voeten, 2004). Therefore, the current study attempted to expand on these developmental differences by analyzing grade level differences when considering a model with all three constructs. Results suggested that classmate support did not moderate the relationship between victimization and social/emotional outcomes for either intermediate or middle school students. However, when investigating the main effects, classmate support was more likely to influence the relationship for middle school students when compared to intermediate school students. For instance, classmate support was significantly related to social/emotional outcomes during middle school, whereas there was no significant relationship at the intermediate grade levels. This finding contributed to the current literature that suggested that classmate support significantly influenced the social/emotional outcomes of students in older grades (Furman & Buhrmester, 1992; Salmivalli & Voeten, 2004). These findings could also be explained by previous research in child and adolescent social development. Davies (2011) wrote, "...social status becomes a defining part of the sense of self during the middle [school] years" (p. 340). Children who perceived lower social status during this stage of development also reported more negative social/emotional outcomes (e.g.,

anxiety, low-self esteem, etc.). Meschke et al. (2012) also reported that peers significantly influenced child development during early adolescence (approximately 12 to 14 years old).

Teacher support did not moderate the relationship between victimization and social/emotional outcomes for either intermediate and middle school students. However, when investigating the main effects, there was a significant relationship between teacher support and social/emotional outcomes for students in both the intermediate and middle school sample. Although results did not suggest a triadic relationship between the variables, teacher support significantly influenced the majority of the social/emotional outcomes that were investigated at both grade school levels. These results further contribute to the literature that suggested teacher support was related to student's psychosocial adjustment, such as students' self-esteem, depression, and anxiety symptoms (Rigby, 2000; Reddy et al., 2003). However, Rosenfeld et al. (2000) suggested that teacher support counteracted negative social/emotional outcomes for students better when students also perceived high support from another source.

#### **Limitations**

There were some limitations of this study due to the data that were used. Although there were a high number of participants ( $N = 649$ ), there was very little ethnic diversity in the sample, with more than 95% of the participants identifying as White/Caucasian. In addition, the sample was collected within one rural community. Therefore, findings may not be generalizable to urban or suburban populations. Also, the current study relied solely on student self-reports of victimization; however, a multi-informant research design may have been more favorable.

Furthermore, the current study divided the BESS scores into four subscales (personal adjustment, internalizing problems, school problems, and inattention/hyperactivity). Although this factor structure was suggested by Dowdy et al. (2011), the small number of subscale items may have significantly influenced results. However, by further dividing the definition of internalizing disorders, the current study was able to consider more specific traits of children who exhibit these often unobservable behaviors.

#### **Future Directions**

There are several implications for future research based on the current study. For instance, it may be important to examine the relationship between parental support, victimization, and social/emotional outcomes. Previous research has suggested that high parental support may decrease the frequency and

severity of children and adolescents' depressive symptoms (Tanigawa et al., 2011). However, further research is needed in this area.

Furthermore, it may be beneficial to investigate the relationship between various sources of social support and victims' social/emotional outcomes. For instance, Helsen et al. (2000) suggested that perceptions of high peer support may not compensate for the lack of parental support in regards to students' negative outcomes. Rosenfeld et al. (2000) suggested that teacher support was more effective when combined with other sources of support, such as parent and classmate support. Therefore, sources of social support in combination may better protect victims' from experiencing internalizing behaviors. Based on these studies, future research could explore these hypotheses.

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Table 1: Un-centered-Descriptive Statistics for Total Sample, by Sex, and by Grade Level

	Total Sample			Sex						Grade Level					
	<i>M</i>	<i>SD</i>	Range	Girls			Boys			Intermediate Students			Middle School Students		
				<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
Victim Score	8.13	8.83	0-41	8.70	9.50	0-41	7.60	8.10	0-40	8.87	9.23	0-41	7.45	8.40	0-40
Classmate SS	51.32	14.06	12-173.70	52.11	15.11	12-173.70	50.55	12.97	16-71	50.36	14.73	12-72	52.21	13.35	17-72
Teacher SS	60.48	11.67	12-110	61.35	10.81	12-72	59.61	12.40	16-72	60.56	11.60	12-72	60.40	11.76	16-72
Personal Adjustment Problems	14.90	10.32	0-32	15.67	10.58	0-32	14.19	10.02	0-32	24.23	4.95	8-32	6.18	5.04	0-22
Internalizing Problems	12.93	8.18	0-37	13.49	8.24	0-37	12.40	8.10	0-35	18.96	5.40	9-37	7.29	6.02	0-30
School Problems	4.75	3.13	0-15	4.42	2.90	0-14	5.07	3.32	0-15	6.34	2.58	2-15	3.26	2.87	0-12
Total	43.07	24.26	0-98	43.91	24.56	0-98	42.29	24.01	0-91	64.54	8.56	39-98	22.99	15.35	0-73



Table 2: Social/Emotional Outcomes for Total Sample

Dependent Variable	Step	Independent Variable	<i>B</i>	<i>SE B</i>	95% CI	$\beta$	<i>R</i> <sup>2</sup>	<i>p</i>
BESS Total	1	Victimization	.652	.11	[.435, .87]	.237	.125	<.001
		Classmate SS	-.352	.07	[-.452, -.178]	-.182		<.001
	2	Victimization	.791	.12	[.556, 1.027]	.288	.137	<.001
		Classmate SS	-.346	.07	[-.484, -.208]	-.20		<.001
		Victimization*Classmate SS	.02	.007	[.007, .033]	.124		.003
	1	Victimization	.795	.108	[.584, .007]	.289	.317	<.001
		Teacher SS	-.142	.082	[-.302, .018]	-.068		.08
	2	Victimization	.821	.110	[.604, 1.037]	.299	.319	<.001
		Teacher SS	-.161	.083	[-.325, .003]	-.077		.05
		Victimization*Teacher SS	.008	.008	[-.007, .023]	.042		.29
Personal Adjustment	1	Victimization	.127	.05	[.03, .225]	.109	.029	.01
		Classmate SS	-.07	.031	[-.032, -.009]	-.095		.02
	2	Victimization	.184	.054	[.079, .290]	.158	.04	<.001
		Classmate SS	-.083	.031	[-.145, -.021]	-.112		.009
		Victimization*Classmate SS	.008	.003	[.002, .014]	.12		.007
	1	Victimization	.182	.048	[.088, .275]	.15	.149	<.001
		Teacher SS	.025	.036	[.046, .097]	.029		.48
	2	Victimization	.193	.049	[.097, .289]	.165	.154	<.001
		Teacher SS	.017	.037	[.056, .09]	.019		.65
		Victimization*Teacher SS	.004	.003	[-.003, .01]	.04		.29
Internalizing Problems	1	Victimization	.325	.305	[.256, .393]	.351	.238	<.001
		Classmate SS	-.13	.022	[-.173, -.087]	-.224		<.001
	2	Victimization	.56	.038	[.282, .430]	.385	.243	<.001
		Classmate SS	-.137	.02	[-.181, -.094]	-.236		<.001
		Victimization*Classmate SS	.005	.002	[.00, .009]	.083		.03
	1	Victimization	.381	.034	[.314, .448]	.412	.45	<.001
		Teacher SS	-.066	.026	[-.117, -.015]	-.094		.01
	2	Victimization	.389	.035	[.320, .457]	.42	.45	<.001
		Teacher SS	-.072	.026	[-.123, -.020]	-.102		.007
		Victimization*Teacher SS	.002	.002	[-.002, .007]	.036		.332
School Problems	1	Victimization	.075	.015	[.046, .103]	.211	.095	<.001
		Classmate SS	-.034	.009	[-.052, -.016]	-.153		<.001

2	Victimization	.086	.016	[.055, .117]	.243	.099	<.001
	Classmate SS	-.037	.009	[-.055, -.019]	-.164		<.001
	Victimization*Classmate SS	.002	.001	[.00, .003]	.078		.07
1	Victimization	.077	.014	[.05, .105]	.219	.321	<.001
	Teacher SS	-.047	.01	[-.068, -.026]	-.176		<.001
2	Victimization	.078	.014	[.051, .106]	.222	.321	<.001
	Teacher SS	-.048	.01	[-.069, -.027]	-.179		<.001
	Victimization*Teacher SS	.00	.001	[-.002, .002]	.012		.769

Table 3: Social/Emotional Outcomes by Gender: Girls

Dependent Variable	Step	Independent Variable	<i>B</i>	<i>SE B</i>	95% CI	$\beta$	<i>R</i> <sup>2</sup>	<i>p</i>
BESS Total	1	Victimization	.543	.149	[.251, .835]	.210	.136	<.001
		Classmate SS	-.373	.093	[-.556, -.189]	-.229		<.001
	2	Victimization	.719	.158	[.408, 1.031]	.278	.16	<.001
		Classmate SS	-.435	.095	[-.621, -.249]	-.267		<.001
		Victimization*Classmate SS	.027	.009	[.009, .044]	.178		.003
	1	Victimization	.693	.146	[.406, .979]	.268	.101	<.001
		Teacher SS	-.235	.128	[-.488, .017]	-.104		.07
	2	Victimization	.704	.147	[.415, .993]	.273	.102	<.001
		Teacher SS	-.267	.137	[-.536, .003]	-.117		.05
		Victimization*Teacher SS	.007	.011	[-.014, .028]	.038		.52
Personal Adjustment	1	Victimization	.096	.067	[-.036, .228]	.086	.046	.15
		Classmate SS	-.115	.042	[-.198, -.032]	-.164		.007
	2	Victimization	.175	.072	[.034, .316]	.157	.072	.015
		Classmate SS	-.143	.043	[-.227, -.059]	-.204		.001
		Victimization*Classmate SS	.012	.004	[.004, .02]	.185		.004
	1	Victimization	.166	.066	[.037, .295]	.149	.023	.01
		Teacher SS	-.007	.058	[-.12, .107]	-.007		.91
	2	Victimization	.170	.066	[.04, .30]	.152	.024	.01
		Teacher SS	-.017	.062	[-.138, .104]	-.017		.78
		Victimization*Teacher SS	.002	.005	[-.00, .012]	.029		.64
School Problems	1	Victimization	.058	.018	[.022, .093]	.189	.096	.001
		Classmate SS	-.034	.011	[-.057, -.012]	-.179		.002
	2	Victimization	.075	.019	[.037, .113]	.246	.112	<.001
		Classmate SS	-.041	.011	[-.063, -.018]	-.212		<.001
		Victimization*Classmate SS	.003	.001	[.001, .005]	.15		.01
	1	Victimization	.363	.046	[.273, .452]	.418	.221	<.001
		Teacher SS	-.089	.040	[-.168, -.01]	-.117		.03
	2	Victimization	.365	.046	[.275, .456]	.421	.221	<.001
		Teacher SS	-.097	.043	[-.181, -.012]	-.126		.02
		Victimization*Teacher SS	.002	.003	[-.005, .008]	.027		.61
Internalizing Problems	1	Victimization	.303	.046	[.213, .394]	.349	.268	<.001
		Classmate SS	-.144	.029	[-.201, -.087]	-.264		<.001

2	Victimization	.336	.049	[.239, .434]	.387	.275	<.001
	Classmate SS	-.156	.03	[-.214, -.098]	-.285		<.001
	Victimization*Classmate SS	.005	.003	[-.001, .011]	.099		.166
1	Victimization	.363	.046	[.273, .452]	.418	.221	<.001
	Teacher SS	-.089	.04	[-.168, -.01]	-.117		.027
2	Victimization	.365	.046	[.275, .456]	.421	.221	<.001
	Teacher SS	-.097	.04	[-.181, -.012]	-.126		.025
	Victimization*Teacher SS	.002	.003	[-.005, .008]	.027		.615

Table 4: Social/Emotional Outcomes by Gender: Boys

Dependent Variable	Step	Independent Variable	<i>B</i>	<i>SE B</i>	95% CI	$\beta$	<i>R</i> <sup>2</sup>	<i>p</i>
BESS Total	1	Victimization	.774	.17	[.440, 1.107]	.261	.116	<.001
		Classmate SS	-.252	.107	[-.462, -.042]	-.135		.02
	2	Victimization	.868	.186	[.503, 1.233]	.293	.120	<.001
		Classmate SS	-.259	.107	[-.469, -.049]	-.139		.02
		Victimization*Classmate SS	.013	.01	[-.007, .034]	.074		.21
	1	Victimization	.904	.163	[.582, 1.225]	.305	.102	<.001
		Teacher SS	-.079	.107	[-.289, .131]	-.041		.46
	2	Victimization	.97	.172	[.632, 1.309]	.327	.106	<.001
		Teacher SS	-.09	.107	[.301, .121]	-.046		.40
		Victimization*Teacher SS	.014	.012	[-.009, .037]	.069		.22
Personal Adjustment	1	Victimization	.145	.075	[-.002, .292]	.117	.018	.05
		Classmate SS	-.023	.047	[-.116, .069]	-.03		.62
	2	Victimization	.18	.082	[.02, .342]	.146	.021	.03
		Classmate SS	-.026	.047	[-.119, .066]	-.033		.58
		Victimization*Classmate SS	.005	.005	[-.004, .014]	.066		.29
	1	Victimization	.179	.071	[.039, .320]	.145	.019	.013
		Teacher SS	.04	.047	[-.052, .131]	.049		.398
	2	Victimization	.21	.075	[.062, .358]	.169	.024	.006
		Teacher SS	.034	.047	[-.058, .126]	.043		.462
		Victimization*Teacher SS	.007	.005	[-.003, .017]	.076		.199
School Problems	1	Victimization	.107	.023	[.06, .153]	.261	.105	<.001
		Classmate SS	-.028	.015	[-.057, .001]	-.111		.05
	2	Victimization	.107	.026	[.056, .157]	.262	.105	<.001
		Classmate SS	-.028	.015	[-.057, .001]	-.111		.06
		Victimization*Classmate SS	2.845	.001	[-.003, .003]	.001		.98
	1	Victimization	.392	.052	[.289, .495]	.393	.183	<.001
		Teacher SS	-.056	.034	[-.123, .012]	-.086		.10
	2	Victimization	.412	.055	[.303, .520]	.413	.186	<.001
		Teacher SS	-.059	.034	[.126, .009]	-.091		.09
		Victimization*Teacher SS	.004	.004	[-.003, .012]	.061		.26

Internalizing Problems	1	Victimization	.338	.054	[.232, .444]	.34	.207	<.001
		Classmate SS	-.120	.034	[-.187, -.054]	-.193		<.001
	2	Victimization	.371	.059	[.255, .487]	.373	.212	<.001
		Classmate SS	-.123	.034	[-.19, -.056]	-.197		<.001
		Victimization*Classmate SS	.005	.003	[-.002, .011]	.077		.166
	1	Victimization	.392	.052	[.289, .495]	.393	.183	<.001
		Teacher SS	-.056	.034	[-.123, .012]	-.086		.105
	2	Victimization	.412	.055	[.303, .520]	.413	.186	<.001
		Teacher SS	-.059	.034	[-.126, .009]	-.091		.087
		Victimization*Teacher SS	.004	.004	[-.003, .012]	.061		.256

Table 5: Social/Emotional Outcomes by Grade Level: Intermediate Students

Dependent Variable	Step	Independent Variable	<i>B</i>	<i>SE B</i>	95% CI	$\beta$	<i>R</i> <sup>2</sup>	<i>p</i>
BESS Total	1	Victimization	.262	.053	[.158, .366]	.281	.082	<.001
		Classmate SS	-.009	.033	[-.074, .056]	-.015		.788
	2	Victimization	.236	.056	[.126, .346]	.254	.087	<.001
		Classmate SS	.004	.034	[-.064, .071]	.006		.919
		Victimization*Classmate SS	-.005	.004	[-.012, .002]	-.085		.169
	1	Victimization	.277	.052	[.174, .38]	.298	.084	<.001
		Teacher SS	.034	.042	[-.048, .116]	.046		.412
	2	Victimization	.262	.053	[.157, .143]	.282	.091	<.001
		Teacher SS	.057	.044	[-.03, .143]	.076		.198
		Victimization*Teacher SS	-.006	.004	[-.013, .001]	-.096		.106
Personal Adjustment	1	Victimization	-.067	.03	[-.126, -.007]	-.124	.096	.028
		Classmate SS	.085	.019	[.048, .122]	.253		<.001
	2	Victimization	-.084	.032	[-.146, -.021]	-.156	.104	.009
		Classmate SS	.093	.02	[.055, .132]	.277		<.001
		Victimization*Classmate SS	-.003	.002	[-.007, .001]	-.098		.109
	1	Victimization	-.058	.029	[-.001, -.116]	-.110	.134	.046
		Teacher SS	.136	.023	[.091, .182]	.322		<.001
	2	Victimization	-.070	.029	[-.127, -.012]	-.131	.147	.019
		Teacher SS	.153	.024	[.105, .201]	.361		<.001
		Victimization*Teacher SS	-.004	.002	[-.009, .000]	-.125		.03
School Problems	1	Victimization	.042	.016	[.011, .074]	.153	.027	.009
		Classmate SS	-.006	.01	[-.026, .014]	-.033		.577
	2	Victimization	.042	.017	[.00, .076]	.152	.027	.015
		Classmate SS	-.005	.01	[-.026, .015]	-.031		.604
		Victimization*Classmate SS	-	.001	[-.002, .002]	-.005		.941
				8.120				E-005
	1	Victimization	.041	.016	[.009, .072]	.148	.030	.011
		Teacher SS	-.012	.013	[-.037, .013]	-.056		.331
	2	Victimization	.039	.016	[.007, .071]	.143	.030	.016
		Teacher SS	-.01	.013	[-.037, .016]	-.046		.448

		Victimization*Teacher SS	-.001	.001	[-.003, .002]	-.032		.601
Internalizing Problems	1	Victimization	.238	.03	[.179, .298]	.407	.245	<.001
		Classmate SS	-.071	.019	[-.108, -.034]	-.193		<.001
	2	Victimization	.232	.032	[.169, .294]	.395	.246	<.001
		Classmate SS	-.068	.02	[-.106, -.029]	-.184		.001
		Victimization*Classmate SS	-.001	.002	[.005, .003]	-.036		.521
	1	Victimization	.245	.030	[.186, .304]	.419	.232	<.001
		Teacher SS	-.071	.024	[-.118, -.024]	-.152		.003
	2	Victimization	.241	.031	[.181, .302]	.413	.233	<.001
		Teacher SS	-.065	.025	[-.115, -.016]	-.140		.01
		Victimization*Teacher SS	-.001	.002	[-.006, .003]	-.038		.489



Table 6: Social/Emotional Outcomes by Grade Level: Middle School Students

Dependent Variable	Step	Independent Variable	<i>B</i>	<i>SE B</i>	95% CI	$\beta$	<i>R</i> <sup>2</sup>	<i>p</i>
BESS Total	1	Victimization	.644	.083	[.481, .807]	.352	.531	<.001
		Classmate SS	-.541	.052	[-.644, -.439]	-.47		<.001
	2	Victimization	.611	.096	[.423, .799]	.334	.532	<.001
		Classmate SS	-.542	.052	[-.645, -.44]	-.471		<.001
		Victimization*Classmate SS	-.033	.005	[-.012, .006]	-.031		.494
	1	Victimization	.944	.08	[.788, 1.101]	.516	.448	<.001
		Teacher SS	-.365	.057	[-.477, -.253]	-.279		<.001
	2	Victimization	.953	.083	[.79, 1.117]	.521	.448	<.001
		Teacher SS	-.367	.057	[-.479, -.254]	-.281		<.001
		Victimization*Teacher SS	.002	.006	[-.009, .013]	.016		.712
Personal Adjustment	1	Victimization	.137	.03	[.079, .195]	.228	.439	<.001
		Classmate SS	-.191	.019	[-.228, -.155]	-.507		<.001
	2	Victimization	.119	.034	[.051, .186]	.198	.441	.001
		Classmate SS	-.192	.019	[-.229, -.155]	-.508		<.001
		Victimization*Classmate SS	-.002	.002	[-.005, .002]	-.052		.29
	1	Victimization	.256	.029	[.199, .314]	.428	.314	<.001
		Teacher SS	-.103	.021	[-.143, -.062]	-.239		<.001
	2	Victimization	.266	.03	[.207, .326]	.444	.316	<.001
		Teacher SS	-.105	.021	[-.146, -.064]	-.245		<.001
		Victimization*Teacher SS	.002	.002	[-.002, .007]	.055		.253
School Problems	1	Victimization	.075	.02	[.035, .115]	.218	.187	<.001
		Classmate SS	-.058	.013	[-.083, -.033]	-.27		<.001
	2	Victimization	.073	.024	[.026, .119]	.212	.187	.002
		Classmate SS	-.058	.013	[-.083, -.033]	-.27		<.001
		Victimization*Classmate SS	.00	.001	[-.002, .002]	-.011		.856
	1	Victimization	.085	.017	[.05, .119]	.247	.239	<.001
		Teacher SS	-.083	.012	[-.108, -.059]	-.342		<.001
	2	Victimization	.081	.018	[.045, .117]	.237	.240	<.001
		Teacher SS	-.083	.013	[-.107, -.058]	-.338		<.001
		Victimization*Teacher SS	-.001	.001	[-.003, .002]	-.036		.481
Internalizing	1	Victimization	.313	.033	[.247, .378]	.436	.503	<.001

Problems							
		Classmate SS	-.165	.021	[-.206, -.123]	-.365	<.001
2		Victimization	.285	.039	[.209, .36]	.397	.506 <.001
		Classmate SS	-.166	.021	[-.207, -.124]	-.367	<.001
		Victimization*Classmate SS	-.003	.002	[-.006, .001]	-.068	.147
1		Victimization	.42	.032	[.358, .483]	.586	.433 <.001
		Teacher SS	-.079	.023	[-.123, -.034]	-.154	<.001
2		Victimization	.428	.033	[.363, .493]	.597	.434 <.001
		Teacher SS	-.081	.023	[-.126, -.036]	-.158	<.001
		Victimization*Teacher SS	.002	.002	[-.003, .006]	.037	.405