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Student Perceptions of Bullying Victimization: Associations with Student Engagement and Teacher Support

Allen Garcia
University of Nebraska-Lincoln, agg@huskers.unl.edu

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STUDENT PERCEPTIONS OF BULLYING VICTIMIZATION: ASSOCIATIONS WITH STUDENT ENGAGEMENT AND TEACHER SUPPORT

by

Allen Ghyslaen Garcia

A DISSERTATION

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STUDENT PERCEPTIONS OF BULLYING VICTIMIZATION: ASSOCIATIONS WITH STUDENT ENGAGEMENT AND TEACHER SUPPORT

Allen Ghyslaen Garcia, Ph.D.

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Adviser: Susan M. Swearer

Bullying is a serious, complex problem that affects school-aged youth. Years of research on bullying has provided evidence that bullying victimization is linked with adverse outcomes for youth; however, researchers have yet to fully investigate how bullying victimization and maladjustment is associated with student engagement, and whether teacher support is a protective factor for victimized youth. A social-ecological perspective was used to guide the study given that a person’s bullying behaviors are related and interconnected to a network of systems and relationships in their environment. The purpose of the study was to investigate middle school students’ perspectives on bullying victimization (i.e., verbal/relational and physical), social and emotional maladjustment, student engagement (i.e., affective and cognitive indicators), and teacher support. Participants were 11-14 year-old students from an independent school in a mid-sized Western city. Path analysis was used to analyze five research questions. Bullying victimization and social and emotional maladjustment were correlated with student engagement. Social and emotional maladjustment was evaluated as a mediator between bullying victimization and engagement. Teacher support was evaluated as a moderator of the relationship between bullying victimization and engagement, and teacher support was also examined within a moderated mediation model. The findings indicated that bullying victimization and maladjustment can be risk factors for affective student engagement. Teacher support can be a positive factor for overall student engagement, and there was limited evidence found that teacher
support acts as a protective factor between bullying victimization and student engagement. Victimization and maladjustment tended to be unrelated to cognitive engagement. No evidence was found for mediation of social and emotional maladjustment explaining the relationships between bullying victimization and student engagement. Further, no evidence was found that teacher support moderated the pathways in the mediation model between bullying victimization and maladjustment. These results extend the broader literature on bullying victimization and its associations with school-related variables and may have implications for encouraging bullying prevention and intervention. Study limitations are discussed along with research and clinical implications.
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CHAPTER I
INTRODUCTION

Bullying results when a youth is the recipient of aggressive behaviors that are intentional, repeated or likely to be repeated, and the youth is unable to defend him or herself from the behaviors (Gladden, Vivolo-Kantor, Hamburger, & Lumpkin, 2014; Olweus, 1993). Bullying is enacted in different forms, including traditional forms of physical, verbal, and relational bullying; and more recently, cyberbullying (Hymel & Swearer, 2015). Individuals involved in bullying can take on several roles as a victim, perpetrator, bully-victim, and bystander (Haynie et al., 2001; Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996). Recent research has suggested that youth move within these roles over time (Ryoo, Wang, & Swearer, 2015). The experiences of victims were assessed in this study given that bullying victimization presents a significant problem for youth.

The term bullying victimization refers to individuals who are victims and targets of receiving bullying. Bullying victimization is different than other types of peer victimization (e.g., aggression, sexual offenses, dating violence, gang violence, serious single episode assaults). Bullying victimization is a significant risk factor for students’ development and functioning at schools (Bradshaw, Waasdorp, & O’Brennan, 2013; Cook, Williams, Guerra, Kim, & Sadek, 2010; Craig, 1998; Hawker & Boulton, 2000). Estimates on the prevalence of bullying victimization indicate that about a fifth of all U.S. students are bullied (U. S. Department of Education, 2016; U.S. Department of Education & National Center for Education Statistics, 2017). Concerns have been raised among teachers, school psychologists, other school professionals, and parents regarding the prevalence of bullying victimization (Swearer & Espelage, 2011). This study adds to the existing research on victims of bullying (Bellmore, Chen,

The relationships between being bullied and students’ mental health, behavioral functioning, and academic performance have largely been examined (Cook et al., 2010; Kljakovic & Hunt, 2016; Nakamoto & Schwartz, 2010; Swearer et al., 2010). These findings have suggested that students who are bullied are more likely to experience poor outcomes. Although these relationships are well-established, there is a lack of research examining the relationships between bullying victimization and student engagement. Student engagement is essential to school learning and academic performance (Finn & Rock, 1997; Finn & Zimmer, 2012; Reschly & Christenson, 2012; Wang & Degol, 2014).

**Theoretical Framework**

Bronfenbrenner developed the social-ecological theory to explain the complexity of human behavior. This theory is informative for understanding that children have individual differences and unique personality traits that interact with factors in their environment. As a result, factors within the environment must also be accounted for when understanding human behavior. Bronfenbrenner outlined several systems that have a bi-directional impact on children (Bronfenbrenner, 1979). The individual system is composed of a child’s individual factors (e.g., age, sex, health) that influences their surrounding systems. The microsystem represents factors that directly influence a child such as family members or school personnel. The mesosystem represents the interactions of two or more microsystems surrounding the child. The exosystem represents the indirect interaction between a microsystem and a broader system in which the child has no participation (e.g., state government). The macrosystem represents the attitudes and
ideologies of the culture that indirectly affect the child. The latter two systems have indirect influences on children.

Bronfenbrenner’s social-ecological theory provides a useful framework for understanding children’s involvement in bullying. The social-ecological model of bullying was developed to account for the ecological systems in the environment that influence bullying (Swearer & Doll, 2001). These systems include peer, family, school, community, and culture. Researchers have found that certain individual characteristics put children at-risk for experiencing and engaging in bullying (Jenkins, Demaray, & Tennant, 2017; Muñoz, Qualter, & Padgett 2011; Wang, Iannotti, & Nansel, 2009), and several systems in the environment also influence bullying involvement such as peers (Flaspohler, Elfstrom, Vanderzee, Sink, & Birchmeier, 2009; Howard, Landau, & Pryor, 2014), families (Duggins, Kuperminc, Henrich, Smalls-Glover, & Perilla, 2016; Sapouna & Wolke, 2013), schools (Espelage, Polanin, & Low, 2014; Konold et al., 2014; Thapa, Cohen, Guffey, & Higgins-D’Alessandro, 2013), and communities (Azeredo, Rinaldi, de Moraes, Levy, & Menezes, 2015; Khoury-Kassabri, Benbenishty, Astor, & Zeira, 2004). Indeed, the social-ecological model had guided research endeavors to explain children and adolescents’ bullying involvement in the context of their environment (Fraser, 1996; Hong & Espelage, 2012; Swearer & Espelage, 2011). In this study, the system of schools (i.e., teachers and adults) were examined.

While there are factors in students’ lives that are difficult to change, school personnel’s behaviors may be a factor that is amenable to change. Students spend a significant portion of their days attending school and interacting with teachers and adults. In addition, school personnel are typically responsible for managing students’ bullying behaviors and enforcing school rules and policies that deter bullying behaviors. In addition, they typically have a key role in promoting classrooms and school environments that are positive, safe, and respectful (Bradshaw,
Mitchell, & Leaf, 2010; Gest & Rodkin, 2011; Hendrickx, Mainhard, Boor-Klip, Cillessen, & Brekelmans, 2016; Konold & Cornell, 2015). School personnel may also be the primary adults at school who support students when students experience bullying victimization (Boulton, 1997; Espelage et al., 2014). It is no surprise that anti-bullying programs incorporate school personnel in the bullying intervention process (Olweus, 1993; Ttofi & Farrington, 2010). As a result, school personnel are often viewed as a protective factor for students involved in bullying when they are supportive and provide fair discipline (Espelage et al., 2014; Gregory et al., 2010; Rigby, 2000; Wang, Swearer, Lembeck, Collins, & Berry, 2015). Thus, further research on teachers and adults in school is needed for understanding how to reduce the adverse effects of bullying victimization on students.

Correlates of Bullying Victimization, Student Engagement, and Social Support

Bullying victimization is associated with maladjustment problems in social and emotional domains (Cook et al., 2010; Kljakovic & Hunt, 2016; Craig, 1998; Hawker & Boulton, 2000; Werth, Nickerson, Aloe, & Swearer, 2015). Maladjustment in the social domain refers to challenges in the development and maintenance of interpersonal relationships, in particular with peers (Busse & Yim, 2013). Researchers have found that youth who are bullied tend to withdraw from their peers (Demanet & Van Houtte, 2012), have social difficulties with families (Holt, Kantor, & Finkelhor, 2008), and avoid or skip school (Bellmore et al., 2013; Vidourek, King, & Merianos, 2016). The negative influence of bullying on a student’s social adjustment could be exacerbated in an environment where students feel unsafe and are at-risk for further bullying victimization. Maladjustment in the emotional domain refers to the difficulty or inability to regulate one’s emotions or emotional states that are resistant to change (Busse & Yim, 2013). Researchers have found that youth who are bullied tend to experience psychological and
physiological symptoms that impair their functioning (Bogart et al., 2014; Bradshaw et al., 2013; Craig, 1998). These symptoms may include depression, anxiety, headaches, and abdominal pain. Despite these findings indicating that bullying victimization is related to adverse outcomes, there is a lack of research fully evaluating the relationships between bullying victimization and student engagement and the relationships between maladjustment of bullying victimization and student engagement, suggesting more research is needed.

Student engagement is perceived as a multidimensional construct that is represented by three indicators. Each of the three indicators is linked with proximal and distal outcomes of student learning and performance (Fredricks, Blumenfeld, & Paris, 2004; Wang & Degol, 2014). The three indicators of engagement are affective/emotional, behavioral, and cognitive. Affective/emotional engagement refers to a student’s sense of feelings towards learning and their feelings about the school (Connell & Wellborn, 1991; Finn, 1989; Fredricks et al., 2004). Behavioral engagement refers to the degree of observable participation in academic and nonacademic school-related activities (Fredricks et al., 2004). Cognitive engagement refers to a student’s use of learning strategies, their ability for self-regulated learning, and how they execute their work as a means towards completing learning activities (Fredricks et al., 2004; Jimerson, Campos, & Greif, 2003).

There are several important reasons for studying the risk factors of student engagement such as bullying victimization. The adverse stress from being bullied may affect a student’s interest in school work and feeling connected to their school. Student engagement is essential to school learning and academic performance (Finn & Zimmer, 2012). A student’s engagement influences academic achievement in school (Finn & Rock, 1997; Reschly & Christenson, 2012). Indeed, students who demonstrate high engagement are more likely to develop and maintain
habits in school that lead to increased likelihood for school completion (Finn & Rock, 1997; Finn & Zimmer, 2012). Low student engagement relates to students dropping out of school and engaging in other risky behaviors (Finn & Rock, 1997; Li & Lerner, 2011; O’Farrell & Morrison, 2003; Reschly & Christenson, 2012). It is important to identify and examine risk factors for decreased student engagement such as bullying victimization, which is related to low interest in school, decreased academic performance, and reduced student engagement (Mehta, Cornell, Fan, & Gregory, 2013; Nakamoto & Schwartz, 2010). Given these findings, researchers should investigate whether different forms of bullying victimization are risk factors of poor affective and cognitive aspects of engagement. Researchers must also identify protective factors for youth at risk for poor student engagement such as social support from teachers and adults at school.

Social support refers to helpful interpersonal relationships that derive from an individual’s social network (Gottlieb, 2009). Social support creates a sense that a person is cared for, valued, or is part of a mutual network of people. The types of social support vary (i.e., direct or perceived support) and there are positive effects that arise from different types of social support (Gottlieb, 2009). These effects of social support are highlighted in two theoretical models, the main effect and the stress-buffering models.

In the main effect model, social support is conceptualized to promote positive outcomes for all individuals (Baumeister & Leary, 1995; Cohen, Gottlieb, & Underwood, 2000). Research findings have suggested social support from teachers has positive effects. The social support that teachers can provide varies and can include from providing assistance, guidance, or reassurance. Greater social support from teachers has been found to be related to positive social-emotional outcomes for students including fewer school problems, fewer internalizing problems, better
school adjustment, and higher academic effort (Averdijk, Eisner, & Ribeaud, 2014; Sakiz, Pape, & Hoy, 2012; Tennant et al., 2015). Teacher support also appeared to have a positive influence on students’ engagement in school (Anderson, Christenson, Sinclair, & Lehr, 2004; Danielsen, Wiium, Wilhelmsen, & Wold, 2010; Pianta, Hamre, & Allen, 2012; Ruzek et al., 2016). In addition, support from teachers and adults at school was associated with increased affective and cognitive engagement among students and reduced levels of school-wide teasing and bullying (Konold & Cornell, 2015; Konold et al., 2014; Mehta et al., 2013). The positive effects of social support can arise from the direct social interactions between teachers and students or having teachers as available resources if a child needs assistance for managing stress from school (Gottlieb, 2009). Committed teachers who are enthusiastic and demonstrate genuine concern for students’ success find ways to support their students (Bryson & Hand, 2007). Thus, consistent with the main effect model, social support from teachers and adults appears to be associated with positive outcomes for students.

In the stress-buffering model, social support is conceptualized to promote positive outcomes for individuals encountering stressful experiences and events (Cohen & Wills, 1985). Teacher support has been found to be important for youth who are being bullied (Malecki, Demaray, & Davidson, 2008) and found to moderate the negative effects of bullying victimization such as internalizing distress from being bullied (Davidson & Demaray, 2007; Ttofi, Bowes, Farrington, & Losel, 2014). These findings are consistent with the stress-buffering model of social support that indicate social support can remediate stressful experiences. However, in one study, for both male and female victims of bullying, teacher social support did not moderate victims’ depressive symptoms (Tanigawa, Furlong, Felix, & Sharkey, 2011). The stress-buffering effects may depend on the outcome of interest (Rosenfeld, Richman, Bowen, &
Wynns, 2006). More research is needed to understand whether teachers’ social support may act as protective factor in interrupting the consequences of bullying victimization.

**Current Study**

The purpose of the study was to examine the relationships between bullying victimization, maladjustment, student engagement, and teacher support. This study seeks to address the gaps in the literature on the relationships between bullying victimization, maladjustment, and student engagement; and to determine whether teacher support moderates these relationships. While some research indicates bullying victimization and reports of bullying and teasing at the broader level are negatively associated with characteristics or indicators of student engagement (Cunningham, 2007; Konold & Cornell, 2015; Konold et al., 2014; Popp & Peguero, 2012; Ripski & Gregory, 2009), minimal research has been conducted that examines how different forms of bullying victimization are associated with characteristics of student engagement (Loukas, Ripperger-Suhler, & Herrera, 2012). A limitation of previous research in this area was that bullying victimization was primarily assessed as one total construct (Cunningham, 2007; Popp & Peguero, 2012; Ripski & Gregory, 2009). Research indicates that bullying victimization is a multidimensional construct and is conceptualized to include physical and verbal or relational forms of aggression (Crick & Dodge, 1996), and these forms occur at different rates (Vaillancourt et al., 2010). Additional research is needed to examine if verbal/relational and physical victimization is associated with poor student engagement. These aims could provide more clarity to researchers and school professionals on bullying prevention and intervention as it relates to students’ engagement.

Another gap in the research is whether social and emotional maladjustment due to bullying victimization negatively influences student engagement. A few studies have found that
youth who experience mental health problems tend to have poor educational attainment or
engagement (Frojd et al., 2008; Loukas et al., 2012; McLeod & Fettes, 2007; Totura, Karver, &
Gesten, 2014); however, to the authors’ knowledge, previous research has not assessed whether
distress specific to bullying victimization experiences is associated with student engagement. In
addition, no research has evaluated whether social and emotional maladjustment from bullying
victimization mediates the association between bullying victimization and student engagement.
More research is needed to determine whether maladjustment due to bullying victimization is
related to student engagement and if it explains the associations between bullying victimization
and student engagement. If maladjustment was found to be a mediator, it would inform school
professionals to improve their intervention practices of reducing students’ maladjustment
problems from being bullied as a way to support students’ engagement.

Furthermore, researchers have examined protective factors for victimized youth such as
social support (Burke, Sticca, & Perren, 2017; Demaray & Malecki, 2006; 2011; Rigby, 2000;
Tanigawa et al., 2011; Turner, Shattuck, Finkelhor, & Hambym, 2017). However, the buffering
effects of teacher and adult support between bullying victimization on student outcomes have yet
to be fully explored. In previous studies, evidence was found that social support from teachers
moderated and mediated bullying victimization experiences and student outcomes that include
adjustment indices and internalizing distress from bullying (Davidson & Demaray, 2007; Maleck
et al., 2008); however, research has not examined specifically if teacher support moderates the
relationship between bullying victimization and student engagement, or the relationship between
social and emotional maladjustment and student engagement. According to an extensive
PsychInfo search using the search terms “teacher support,” “bullying victimization,” “social and
emotional maladjustment,” and “engagement,” zero studies were found, suggesting no research
has studied these relationships simultaneously. Teacher support may be considered a protective factor for student engagement given that general positive teacher practices and interactions are linked with students’ engagement in school (Danielsen et al., 2010; Gest & Rodkin, 2011; Pianta et al., 2012; Ruzek et al., 2016). Thus, this study seeks to address these limitations and gaps in the literature in these areas.

To address these limitations and gaps, data for the study were collected from an ongoing research study, “Bullying and Victimization among School-aged Youth: A Participatory Action Research Study,” that examines youth involvement in bullying and their school experiences (e.g., educational and psychological constructs). One hundred seventy-one middle school students between the ages of 11 and 14 participated in the study. The participants were recruited from an independent school in a mid-sized Western city in the United States.

All of the consent, assent, and data collection were administered through a web-based survey software, Qualtrics. During the dates of data collection, school personnel made arrangements to have students complete the survey during an assigned time at their school. The measures were presented in random order to ensure that they are counterbalanced across participants. Participants completed the measures in 30 minutes or less. Participants received no direct monetary benefit for participating, and the risks for participating in the study were minimal. To alleviate any potential discomfort (i.e., students might think back to a time when they experienced bullying and distress, if any), at the completion of the survey, all participants were given a list of school counselors, therapists, and psychologists who were available to assist students feeling distressed. Results from this study may be used to heighten awareness among educators about the relationships between bullying victimization, maladjustment, student engagement, and teacher support; and inform bullying victimization prevention and intervention
strategies in schools.

The following chapter describes the empirical research on bullying victimization, social and emotional maladjustment, student engagement, and teacher support. First, the extant literature on bullying and the theoretical models for bullying are presented for understanding school-aged youths’ involvement as victims in bullying. Next, the correlates of bullying victimization are discussed, specifically, the characteristics of social and emotional maladjustment, and school functioning. Then, a review of student engagement and social support from teachers and adults in relation to bullying victimization and student engagement is discussed. The gaps in the literature regarding the variables of interest are then reviewed. Finally, the chapter concludes by presenting specific research questions and hypotheses.
CHAPTER II
LITERATURE REVIEW

Bullying

**Definition of bullying.** Dr. Dan Olweus, the founding father and pioneer of bullying prevention research, proposed a comprehensive bullying definition (Olweus, 1993). Olweus defined bullying as intentional aggressive behaviors repeated over time within a relationship in which an imbalance of power exists (Olweus, 1993). His definition of bullying has three key criteria: negative intention, power imbalance, and repetition. Bullying behaviors are characterized as negative acts with an intent to cause psychological or physical harm. The perpetrator of bullying has an unequal amount of power (e.g., physical characteristics: older in age, physically larger; psychological characteristics: popular, smart) over the victimized person, which results in the victimized person having a difficult time defending (i.e., verbal or physical forms of defending) themselves from the perpetrator of bullying. The victim of bullying experiences repeated negative acts.

Olweus differentiated bullying from aggression. Aggression is defined as a behavior that is intended to harm another individual (Baron & Richardson, 1994). The criteria of negative intention are the same in both definitions, and the criteria of power imbalance and repetition in the bullying definition separate it from aggression. Olweus (1993) found in his research that aggressive behaviors (i.e., criteria of intent) that were accompanied by two additional criteria (i.e., power imbalance, repetition) were unique. Indeed, Olweus (1993) found that persons who were victims of aggressive acts that occurred more than once were more likely to experience detrimental effects than victims of a single incident of aggression.
Experts in bullying research (Espelage & Swearer, 2003; Hymel & Swearer, 2015) have viewed the bullying definition as comprehensive and sufficient enough to distinguish it from aggression. Recently, the Centers for Disease Control and Prevention (CDC; Gladden et al., 2014) proposed a universal bullying definition. The CDC sought to encourage consistency among researchers in how they assess bullying and bullying victimization and to bridge the gap between researchers and the public on how to define it. The CDC defined bullying as:

Bullying is any unwanted aggressive behavior(s) by another youth or group of youths who are not siblings or current dating partners that involves an observed or perceived power imbalance and is repeated multiple times or is highly likely to be repeated. Bullying may inflict harm or distress on the targeted youth including physical, psychological, social, or educational harm. (Gladden et al., 2014, pp. 7)

The CDC developed a definition that aligns with the definition proposed by Olweus, but with minor distinctions. The CDC definition stated that bullying can be considered one aggressive act (i.e., the repeated acts of aggression are unnecessary) if the original act could be perpetrated in the future. In addition, the CDC excluded and distinguished sibling and intimate partner abuse as separate from bullying. In this study, bullying victimization was assessed according to the CDC definition.

Although the majority of researchers agree that bullying is a unique form of aggression, others have been critical of the criteria in the definition (Finkelhor, Turner, & Hamby, 2012). First, given that the bullying definition excludes single aggressive acts that are unlikely to occur in the future, single acts of aggression may be overlooked (Finkelhor et al., 2012). The advantage of the bullying definition is that it excludes trivial conflicts among peers, but the disadvantage is that it excludes serious acts of aggression that can also result in negative effects. For example,
events of school violence (e.g., physical assault, school mass shooting) can have long-lasting effects on individuals, schools, or communities (Katsiyannis, Whitford, & Ennis, 2018). Second, the criteria in the definition makes it difficult for the lay public (i.e., students, parents, school professionals, and other public persons) to readily understand the technical definition. Most students across grade levels are unaware that bullying is different from regular teasing or aggression and tends to misreport the three criteria in the bullying definition (Vaillancourt et al., 2008). The criterion, intention, is usually well understood; however, individuals may not think of the criteria, power difference or repetition. Third, the criterion of power imbalance suggests that being bullied is a matter of perception. An imbalance of power is more evident in physical characteristics than in psychological characteristics such as popularity or intelligence. Thus, in some cases, a power imbalance represents a person’s subjective perception rather than an observable or measurable factor (Rodkin, Espelage, & Hanish, 2015). These issues regarding defining characteristics of bullying indicate that the definition is far from perfect. However, defining bullying as a unique subset of aggressive behaviors assists with identifying students who are impacted by bullying (Sharkey et al., 2014).

**Bullying victimization.** The term bullying victimization refers to individuals who are victims and targets of receiving bullying as defined by Olweus and the CDC. Bullying victimization is different than other types of peer victimization (e.g., aggression, sexual offenses, dating violence, gang violence, serious single episode assaults). Bullying victimization is a prevalent problem for school-aged youth. According to national estimates of bullying, about 20 percent of students reported being bullied at school during the school year (Nansel et al., 2001; U.S. Department of Education, 2016; U.S. Department of Education & National Center for Education Statistics, 2017). These estimates suggest that a significant number of students
experience bullying victimization at schools. Bullying victimization has also been found to be a prevalent problem for students throughout their school years (Bradshaw et al., 2013; Hymel & Swearer, 2015; Ryoo et al., 2015). Concerns have been raised among teachers, school psychologists, other school professionals, and parents regarding the prevalence of bullying victimization (Swearer & Espelage, 2011).

**Participant roles in bullying.** Contrary to the common conception that bullying is between a perpetrator and a victim, bullying typically involves more than two individuals. The roles that individuals can have include: victim, perpetrator, bully-victim, and bystander (Haynie et al., 2001; Salmivalli et al., 1996; Swearer & Espelage, 2011). Victims of bullying are targets of receiving bullying. Perpetrators of bullying engage in bullying behaviors towards others. Bully-victims are individuals who both engage in bullying behaviors and are targets of bullying (e.g., an individual bullies their peers at school and is victimized in the neighborhood). Bystanders are individuals who observe bullying, but are not directly involved as perpetrators or victims. The roles in bullying are fluid, with recent research finding that individuals engage in multiple roles of bullying over time (Ryoo et al., 2015). A child’s role in bullying at one time point does not suggest the child will always participate in that role and will likely change over time. In addition to the four bullying roles, students can be considered “uninvolved” when they have no role in bullying. Bullying is a social group phenomenon and is more complex than just two roles (Swearer et al., 2010). Given that bullying victimization presents a significant problem for youth, in this study, the experiences of victims were assessed.

**Subtypes of bullying behaviors.** Four subtypes of bullying behaviors have been identified: physical, verbal, relational, and cyber (Hymel & Swearer, 2015). The focus of this study was on the victims of ‘traditional’ forms of bullying behaviors that include physical,
verbal, and relational bullying. Traditional forms of bullying behaviors occur in school environments to students in their social interactions; whereas, cyberbullying occurs through the platforms of electronic devices. All subtypes of bullying behaviors inflict harm: physical bullying involves using one’s body such as hitting, spitting, or breaking someone’s things; verbal bullying involves using one’s verbal language such as saying mean things or name-calling others; and relational bullying involves hurting someone’s reputation or relationships such as excluding, humiliating, or spreading rumors about others. In addition, bullying behaviors occur in direct and indirect formats. Verbal and physical bullying are direct forms of aggression between individuals face-to-face; relational bullying is an indirect form of aggression where the perpetrator is not face-to-face with the victim (Rodkin et al., 2015). Students who experience bullying victimization are often victims of more than one subtype of bullying. While a small percentage of students are victims of all three subtypes of bullying (verbal, physical, and relational), it is more common that two subtypes co-occur (e.g., verbal and relational bullying; Bradshaw et al., 2013) and occur at different rates (Vaillancourt et al., 2010). Given that there are different subtypes of bullying, and they often co-occur, this study assessed victims who experienced verbal/relational and physical forms of bullying behaviors rather than one specific form. In the assessment tool used to assess bullying victimization, the Verbal and Physical Bullying Scale (VPBS), there are two scales, verbal/relational bullying and physical bullying. It is important to note that the verbal/relational scale comprises of verbal and relational bullying items, and that previous studies have found these verbal and relational items load together (Radliff, Wang, & Swearer, 2016; Swearer, Turner, Givens, & Pollack, 2008; Wang et al., 2015; Werth et al., 2015).
**Assessment of bullying victimization.** The most common method used to assess bullying victimization is through anonymous self-report (Baly, Cornell, & Lovegrove, 2014). Student perspectives are most widely cited in the literature on estimates and consequences of bullying (Baly et al., 2014; Nansel et al., 2001). Students are generally the best reporters of their own experiences with bullying victimization; however, there has been interest among researchers to examine teacher perspectives of bullying (Holt, Keyes, & Koenig, 2011; Sokol, Bussey, & Rapee, 2016; Yoon, Sulkowski, & Bauman, 2016). Although, teachers might be reliable reporters of bullying because they observe students in schools, several findings have suggested teacher’s reports can be problematic (Atlas & Pepler, 1998; Bradshaw, Sawyer, & O’Brennan, 2007; Craig & Pepler, 1997; Demaray, Malecki, Secord, & Lyell, 2013; Yoon & Kerber, 2003). Teachers significantly underestimate the prevalence of bullying victimization when compared to student perspectives (Bradshaw et al., 2007; Demaray et al., 2013), and they are generally unaware of when bullying occurs in schools (Atlas & Pepler, 1998; Craig & Pepler, 1997). Teachers also tend to misperceive the range of bullying behaviors and the need to intervene in all forms of bullying (Yoon & Kerber, 2003). Together, these findings indicate that the assessment of bullying experiences is more robust when obtaining student’s self-reports of bullying victimization. In this study, student reports of bullying victimization were used.

**Theoretical Models for Bullying**

**Bronfenbrenner’s social-ecological theory.** According to Urie Bronfenbrenner (1979), the developer of the social-ecological theory, a person’s behaviors and development are related and interconnected to a network of systems and relationships in their environment. In other words, the environment provides relevance to understanding an individual’s behavior. Many environmental systems (e.g., family, peers, schools, community) have a direct and indirect
influence on a person’s behavior and development during their lifespan. In the context of understanding the behavior and development of children, this theory is informative for understanding the reciprocal influences and interactions of systems in a child’s life. Individual characteristics of children alone are insufficient in explaining their behavior and development. There are several systems described in Bronfenbrenner’s social ecological theory that pertain to children in schools.

The first system in Bronfenbrenner’s model is the microsystem. The microsystem includes factors that directly influence children such as school and classroom environments; and interpersonal relations with family, school professionals, and peers (Bronfenbrenner, 1979). The microsystems are within the immediate environment of children. The next system is the mesosystem, which represents the interactions of two or more microsystems surrounding an individual (Bronfenbrenner, 1979). The interactions among a child’s peers, teachers, and other family members make up the mesosystem.

Subsequent systems in the environment are called exosystems and macrosystems (Bronfenbrenner, 1979). The exosystem represents the indirect interaction between a microsystem and a broad system where the child has no direct involvement. An example of an exosystem is a teacher (microsystem) who implements new rules in their classroom due to a district-wide policy created by the school administration (broad system). The macrosystem is the overarching system. In this system, attitudes and ideologies of the culture indirectly affect the child. The attitudes and ideologies consist of embedded belief systems, traditions and customs, and other well-known patterns of life that are intertwined within a culture or subculture. Without overarching laws and unspoken truths found in the larger society, there would be a lack of
awareness of societal values and norms. Thus, exosystems and macrosystems provide an understanding of the indirect influences on children.

Social-ecological theory suggests that individuals are embedded within multiple systems. Bronfenbrenner argued that in order to gain a comprehensive understanding of children’s behavior and development, researchers should consider how ecological systems affect children, and how children affect their surrounding environments. Bronfenbrenner’s theory has had a significant impact on understanding children’s functioning in schools (Sheridan & Gutkin, 2000).

**The social-ecological model of bullying.** Researchers have applied Bronfenbrenner’s social-ecological theory towards understanding children involved in bullying. Swearer and Doll (2001) developed the social-ecological model of bullying in order to look beyond individual characteristics of children that are related to bullying and consider the ecological factors that influence bullying. The social-ecological model suggests that a full understanding of bullying is complex. No child has the same experiences as another child within their systems that result in the bullying phenomenon. Each child is embedded within a set of systems that is unique according to their family, peers, school, community, and culture (Espelage & Swearer, 2003; Swearer & Espelage, 2011). Research findings have indicated that many environmental factors are significantly related to bullying experiences (Cook et al., 2010; Swearer et al., 2010). A review of each system in the social-ecological model of bullying is described in the following section.

**Individual.** There are several individual factors that affect children’s involvement in bullying. While some of these factors are amenable to change including social competence, beliefs/attitudes, and mental health, many of these factors are fixed, including age/grade, gender,
and disability, to name a few. The prevalence of bullying peaks when students transition between schools (e.g., elementary to middle school); however, overall bullying rates decline as children progress through K-12 schools (Kljakovic & Hunt 2016). Bullying involvement varies across genders. Males tend to engage in more physical forms of bullying; whereas, females tend to engage in more relational and verbal forms of bullying (Nansel et al., 2001). In addition, there are individual factors that put children at-risk for elevated bullying victimization. Children with an educational disability (Rose, Simpson, & Moss, 2015; Swearer, Wang, Maag, Siebecker, & Freichs, 2012) and those who identify as sexual minority students (Kosciw, Greytak, Giga, Villenas, & Danischewski, 2016) are often targets for bullying victimization. Moreover, deficits in social skills place children at-risk for being victimized and/or bullying others (Jenkins et al., 2017). Whereas, children with strong and sophisticated social skills tend to engage in bullying behaviors (Garandeau, Wilson, & Rodkin, 2010; Hawley, Stump, & Ratliff, 2011; Rodkin et al., 2015). Together, all of these individual characteristics of children are related to their involvement in bullying.

**Peers.** Peers can have a positive and negative influence on bullying (Pellegrini & Van Ryzin, 2011). Peers are part of the solution when they intervene in bullying situations and support the victimized youth after a bullying incident (Flaspohler et al., 2009; Salmivalli, Voeten, & Poskiparta, 2011). Researchers have found that bullying behavior decreases when bystanders intervene or defend victims (Salmivalli et al., 2011). In addition, students who have positive relationships with their peers and who have a large number of friends are less negatively affected by bullying (Flaspohler et al., 2009; Pellegrini & Van Ryzin, 2011). In contrast, peers contribute to the problem of bullying when they do nothing to stop or intervene in bullying incidents (Pozzoli & Gini, 2012). Perpetrators of bullying gain approval from an audience of
peers when peers are passive bystanders (Pellegrini & Van Ryzin, 2011). Thus, peer affiliations, friendships, and actions to stop bullying are related to bullying behavior and the effects of bullying.

**Family.** Parents explicitly and implicitly socialize their children to understand social relationships (Bandura, 1989; Grusec & Kuczynski, 1997). Indeed, children’s views of bullying and their interactions with others are shaped by their experiences with the adults in their lives (Bandura, 1989). Children are more likely to be involved in bullying when parent-child relationships are poor and are characterized by a lack of warmth and support from parents (Duncan, 2011; Holt et al., 2008). In addition, parent’s use of ineffective discipline methods such as modeling aggressive behavior is predictive of children involved in the bullying dynamic (Duncan, 2011; Holt et al., 2008). However, positive relationships with family members are protective factors for victimized children (Duggins et al., 2016; Sapouna & Wolke, 2013). For example, it was found that victimized youth who felt close to their parents, enjoyed spending time with them, and found them helpful (i.e., positive family connectedness), were more likely to report less aggressive behaviors over a two-year period (Duggins et al., 2016). Thus, there are several family factors associated with bullying involvement.

**School.** Students spend a majority of their days in schools interacting with teachers and adults. There are many factors within school systems that predict bullying involvement. The actions of educators shape the classroom ecology and school climate, which are related to promoting or discouraging negative peer relationships and bullying (Gest & Rodkin, 2011; Gregory et al., 2010; Konold & Cornell, 2015; Thapa et al., 2013). Teachers and school professionals play an integral role in managing bullying and bullying victimization in their classes (Craig & Pepler, 1997; Espelage et al., 2014; Sokol et al., 2016; Yoon et al., 2016), and
in implementing system-wide practices such as anti-bullying programs (Olweus, 1993; Polanin, Espelage, & Pigott, 2012; Ross & Horner, 2009; Ttofi & Farrington, 2010). The school policies, school climate, and practices of teachers are all predictive of bullying in schools.

**Community and culture.** The community and societal contexts are the largest systems in the social-ecological model of bullying. Factors within the community influence bullying victimization. The socio-economic status of a neighborhood (e.g., communities that are impoverished) and acts of violence (e.g., high homicide rates) are predictive of higher rates of bullying victimization (Azeredo et al., 2015; Khoury-Kassabri et al., 2004). In addition, the attitudes and ideologies of the broader culture, the laws, beliefs, and customs, have a systemic influence on bullying. The cultural beliefs of bullying as being unacceptable in U.S. schools are reflected in the state laws and policies on bullying. After the mass shooting at Columbine High School and the U.S. Supreme Court case *Davis v. Monroe County Board of Education* in 1999, a movement began where state leaders passed legislation to protect children’s safety in schools. All 50 states have passed anti-bullying legislation (Cornell & Limber, 2015). These laws and policies were primarily created to protect children who are bullied (Cornell & Limber, 2015).

Although the community and culture have indirect effects on bullying, these broader systems are important to consider in understanding bullying.

**Implications of the social-ecological perspective on bullying.** Bullying is best understood through the lens of a social-ecological perspective (Swearer & Espelage, 2011). The research findings from all levels of the social-ecological model indicate that there are many reasons why children and adolescents are involved in bullying. Indeed, the model highlights that bullying is a complex problem that must be addressed across multiple systems. Researchers have used the social-ecological perspective as a guiding theory towards developing anti-bullying
efforts (Swearer & Espelage, 2011). Despite there being fixed individual factors (i.e., age, cognitive ability, sex, race/ethnicity) that influence bullying, the social-ecological model highlights factors within a child’s environment that can be altered to influence and reduce bullying.

Given that bullying is a prevalent problem in schools (Nansel et al., 2001) and can be an ongoing and evolving experience for students (Ryoo et al., 2015), further research must be conducted to determine which factors in the environment of students are related to lower levels of bullying victimization. One area in the social ecology that is amenable to change is the school environment. Researchers need to examine which characteristics of the school environment act as positive and protective factors for students involved in bullying in order to prevent bullying and promote intervention.

**Correlates of Bullying Victimization**

According to meta-analytic and cross-sectional research, bullying victimization is linked to a host of adjustment problems (Cook et al., 2010; Kljakovic & Hunt, 2016; Craig, 1998; Hawker & Boulton, 2000; Werth et al., 2015). Youth who are victimized from bullying are at increased risks for social problems (e.g., peer rejection, social isolation, conflict with friends), school problems (e.g., attending school, low commitment to school), internalizing problems (e.g., depression, anxiety, lower self-esteem) and conduct/behavioral problems (Cook et al., 2010; Kljakovic & Hunt 2016). Regardless of a child’s age, gender, and ethnic background, bullying victimization is consistently associated with adjustment indices in social and emotional domains (Swearer et al., 2010; Troop-Gordon, 2017). The characteristics of adjustment, maladjustment, and maladjustment in the context of bullying victimization are further discussed.
**Adjustment and maladjustment.** Adjustment can be viewed as a broad concept and an abstract construct by definition, but it usually refers to the idea that individuals are typically developing and conforming to the norm. “In psychological research, adjustment refers both to an achievement or outcome as well as a process” (p. 796, Seaton, 2009). As an achievement, adjustment refers to a person’s mental health, state of mind, and well-being. As a process, adjustment refers to whether an individual can cope or adapt with the demands of the environment and its changing conditions. Researchers have usually assessed adjustment as an achievement outcome (Seaton, 2009). For example, researchers have examined measures of self-esteem or the absence of depression, to name a few, as indicators of psychological adjustment (Loukas et al., 2012; Malecki et al., 2008; Nansel et al., 2001; Wormington, Anderson, Schneider, Tomlinson, & Brown, 2016). Individuals who deviate from the norm are considered to have poor adjustment or maladjustment (Seaton, 2009).

Maladjustment refers to the idea of impaired functioning, distress, or poor health. It pertains to how individuals physiologically adapt and respond to environmental demands (Busse & Yim 2013). Maladjustment affects individuals in the social and psychological or emotional domains (Busse & Yim 2013). Maladjustment in the social domain refers to the challenge in the development and maintenance of interpersonal relationships, in particular with peers (Busse & Yim, 2013). Youth with problems of social maladjustment may avoid places such as school or display antisocial or delinquent behaviors (Simonsen, 2013). Maladjustment in the psychological or emotional domain refers to the difficulty or inability to regulate one’s emotions or emotional states that are difficult to change. Youth with problems of emotional maladjustment may have difficulties with their mental and physical health, and reduced health can affect school performance.
Characteristics of social maladjustment. Youth who experience bullying victimization tend to have poor relationships with their peers and negative attitudes about making friends (Juvonen, 2013; Schacter, & Juvonen, 2015; Troop-Gordon, 2017). Victimized youth are less popular among their peers and have fewer friends and attachments with their peers compared to youth uninvolved in bullying (Demanet & Van Houtte, 2012). Researchers have consistently found associations between being bullied and peer rejection (Boivin & Hymel, 1997; Godleski, Kamper, Ostrov, Hart, & Blakely-McClure, 2015; Hodges & Perry, 1999). When youth experience rejection, they may have poor and conflictual relationships with others. As a result, they may feel isolated and disliked by their peers. In addition, victimized youth who are marginalized from their peers tend to engage in anti-social behaviors and seek friendships with victimized individuals and groups of delinquent youths (Juvonen, 2013; Juvonen & Ho, 2008). The association between bullying victimization and rejection highlights one aspect of social maladjustment for youth.

Family characteristics have an important role in understanding how children cope with bullying victimization (Duggins et al., 2016; Duncan, 2011; Holt et al., 2008). Scholars have documented that family connectedness (i.e., children feel close to their family and enjoy spending time with their family) and positive parent-child relationships (i.e., mutual affection and trust) may buffer the negative effects of bullying victimization such as depression and other emotional and behavioral problems (Duggins et al., 2016; Duncan, 2011; McDougall & Vaillancourt, 2015). However, a child’s ability to cope with bullying may be more challenging in a home where children have negative interactions with their parents, poor structure in the home (i.e., lack of family rules and supervision), and experience maltreatment (Holt et al., 2008). Other problems among the family may develop. If parents lack information, support, and guidance for
how to effectively support their child being bullied, it may contribute to unintended consequences (Lovegrove, Bellmore, Green, Jens, & Ostrov, 2013) such as youth problems of truancy and substance use (Troop-Gordon, 2017; Wormington et al., 2016).

Bullying victimization is also related to students’ attendance at school. Victims of bullying were six times more likely to avoid school than non-victims (Bellmore et al., 2013; Vidourek et al., 2016). Victimized students may feel their best solution to be safe from further bullying victimization is to avoid school. These findings are consistent with research on school climate suggesting that when students’ feelings of social, emotional, intellectual, and physical safety are threatened, they are more likely to have high levels of absenteeism (Thapa et al., 2013). Ongoing truancy prevents victimized students from participating in school and developing their academic abilities. Consequently, students who are frequently absent have lower grades and lower achievement scores than students with high attendance rates (Morrissey, Hutchinson, & Winsler, 2014; Roby, 2004).

**Characteristics of emotional maladjustment.** A consistent finding across studies is that bullying victimization is associated with poor mental health and internalizing problems, including withdrawal, loneliness, somatization, anxiety, and, particularly, depression (Espelage & Swearer, 2003; Hawker & Boulton, 2000; Haynie et al., 2001; Klomek Marrocco, Kleinman, Schonfeld, & Gould, 2007; McDougall & Vaillancourt, 2015). The most consistent correlate of bullying victimization is elevated depressive symptoms in both children and adolescents (Bradshaw et al., 2013; Kljakovic & Hunt, 2016; Swearer, Collins, Radliff, & Wang, 2011). In addition, youth’s severity of depressive symptoms varies according to the interactions among the types and frequency of bullying experiences (Sinclair et al., 2012). Depressive symptoms that victimized youth experience influence an individual’s perceptions of global self-worth and
impair their functioning and ability to do well in school (Gumora & Arsenio, 2002; McDougall & Vaillancourt, 2015). Furthermore, individuals who are bullied and who have symptoms of major depressive disorder are at increased risk of suicidality, thinking about or attempting suicide (American Psychiatric Association, 2013; Friedberg & McClure, 2015). Bullying victimization is considered to be an intrapersonal vulnerability that is linked to suicidal ideation and self-injurious behaviors (Heilbron & Prinstein, 2010, Holt et al., 2015; Kaminski, & Fang, 2009; Klomek et al., 2007). Holt and colleagues (2015) found in a meta-analysis of 47 studies that victimized students of bullying experienced increased suicidal ideation, attempts, and self-injury. The association between depressive disorders, suicidality, and bullying highlights the severity of maladjustment after being bullied.

Bullied students tend to be more at-risk for symptoms of poor physical health (Bogart et al., 2014; Gini & Pozzoli, 2013; McDougall & Vaillancourt, 2015). School-aged youth who were bullied were two times more likely than non-bullied youth to experience psychosomatic symptoms, which includes headaches, breathing problems, abdominal pain, or sleeping problems (Gini & Pozzoli, 2013). These findings were also found in a longitudinal study in which bullying victimization was consistently linked with poor physical health across five years (i.e., grades five to 10) and three time points (Bogart et al., 2014). Physical health problems can impair students’ ability to participate and engage in tasks during school. Thus, bullying victimization can affect student’s functioning in school via experiencing physical health problems.

School functioning. Given that bullying victimization occurs within the context of schools, researchers have studied whether being bullied is linked with student’s academic achievement. High academic achievement is an important outcome for students because high academic achievers tend to have greater socioeconomic status, life satisfaction, and career
success (Steinmayr, Meißner, Weidinger, & Wirthwein, 2014). Despite mixed findings on the relationship between bullying victimization and academic achievement (Buhs & Ladd, 2001; Woods & Wolke, 2004), a meta-analysis of 33 studies on the topic revealed that for students in elementary through high schools and from the U.S. and other countries, there was a small but, significant negative association between bullying victimization and academic difficulties, as measured by student’s grade-point averages (GPAs), standardized test scores, and teacher ratings of academic performance (Nakamoto & Schwartz, 2010). These meta-analytic findings suggest that across cultures and ages, academic success is negatively affected by being bullied. These findings consolidated inconsistent results from the literature and revealed that there is a significant negative association between being bullied and concurrent academic achievement.

**Social and emotional maladjustment for victims and bystanders.** In a recent study of 540 middle school students, researchers compared bystanders of bullying who have and have not been bullied on their experiences of social and emotional maladjustment (Werth et al., 2015). The researchers utilized one measurement tool that assessed social and emotional maladjustment (Swearer, 2001). It was found that students who were bullied and witnessed others get bullied were more likely to experience higher social maladjustment than individuals who solely witnessed others get bullied. The effect size for this finding was found to be small, (partial $\eta^2 = .01$). However, students who were both bystanders and victims did not differ in their emotional maladjustment compared to non-victimized bystanders (Werth et al., 2015). Although there was a small effect size, the results of the study suggested that youth who are victims and bystanders may have more difficulty in their social maladjustment. Also, the study indicated the benefit of studying social and emotional maladjustment with one measurement tool, as was conducted in this study.
Summary. The consequences for youth who are bullied are often negative. The experience of being bullied is related to a number of social and emotional maladjustment issues, including problems or difficulties with peer relations, family relations, school attendance, mental health, physical health, and school learning.

Student Engagement

Definition of student engagement. The concept of student engagement has evolved over the past three decades (Reschly & Christenson, 2012). Researchers were first interested in studying engagement in order to enhance and promote student learning. Student engagement was first conceptualized as observable actions of students such as time on task during academic work in class (Fisher & Berliner, 1985; Mosher & McGowan, 1985). Later, engagement was conceptualized to be broader after Finn (1989) examined characteristics of students who dropped out of school or were likely to drop out. Finn addressed the problem of student drop out by proposing the Participation Identification Model (Finn, 1989). In this model, engagement is composed of a) student participation and involvement in school activities and b) identification with the school. According to Finn, these aspects would promote the likelihood that students develop a sense of identification with their school and ultimately graduate from high school. Researchers tested this theory by developing strategies that targeted students’ competence in multiple areas of development (i.e., academic, social, behavioral, emotional domains), and supported student engagement and school completion (Finn & Rock, 1997). A drawback to this theory was that it only focused on students at risk for dropping out and the term engagement lacked other key indicators and descriptions. Further research endeavors were sought to clarify what indicators represent engagement (Fredricks et al., 2004) and to examine engagement among
all students rather than only students at-risk for dropping out (Lehr, Sinclair, & Christenson, 2004).

The components in the updated definition of student engagement include indicators that are linked with proximal and distal outcomes of student learning (Fredricks et al., 2004; Wang & Degol, 2014). Fredricks and colleagues (2004) united separate lines of research findings of the indicators and suggested that engagement is multidimensional and representative of behavioral, affective/emotional, and cognitive indicators. It was insufficient to view engagement as solely represented by student’s actions in school, but also by their cognitions and feelings about school. This current definition allowed for a richer characterization of engagement while outlining indicators that are linked with learning, academic achievement, and positive behaviors in schools (Fredricks et al., 2004; Wang & Degol, 2014). Thus, the definition of engagement was refined to be multidimensional with three indicators: affective/emotional, behavioral, and cognitive.

Three indicators of student engagement. Affective/emotional engagement refers to students’ feelings towards learning and their feelings about the school such as a sense of belonging within the school community (Connell & Wellborn, 1991; Finn, 1989; Fredricks et al., 2004). Students’ feelings towards learning content (e.g., concepts taught in school, materials in school) reflect their interest and motivation to learn; whereas, a lack of wanting to learn may indicate low affective engagement. Affective engagement also refers to students having a sense of positive school connectedness (Connell & Wellborn, 1991). The connection students have with their school reflects the extent of their bonding with their peers, teachers, school adults, and the school community. When students lack a bond with their school community, they may feel isolated or alienated. Student’s affective/emotional engagement influences their academic performance and their overall effort and participation in school.
Behavioral engagement refers to the degree of observable participation in academic and nonacademic activities that students have in the school community, classes, and extracurricular activities (Fredricks et al., 2004). Students who participate in various activities indicate greater behavioral engagement in school (Fredricks & McColskey, 2012). Behavioral engagement has also been referred to as positive conduct in schools such as compliance to schoolwide and classroom rules and the absence of problem behaviors including truancy, failing to follow directions, office referrals, and suspensions (Finn & Voelkl, 1993; Reschly & Christenson, 2012).

Cognitive engagement refers to students’ use of learning strategies, their ability for self-regulated learning, and how they execute their work as a means towards completing learning activities (Fredricks et al., 2004; Jimerson et al., 2003). In other words, cognitive engagement reflects the mental and internal processes of planning, monitoring, and evaluating during learning activities. The term is derived from the literature on learning, instruction, and self-regulation (Fredricks et al., 2004). Students who have high levels of cognitive engagement may enjoy challenges in school and be persistent in academic tasks when they are difficult. Without having strategies and being willing to exert the cognitive effort for learning, students are less likely to master or learn difficult skills. Indeed, student’s capacity to intellectually engage in academic tasks is required for academic success in school (Fredricks et al., 2004).

Assessment of student engagement. Despite the advances in the study of engagement as a multidimensional construct, there remain several issues related to its measurement. The definitional issues in student engagement result in research findings that are difficult to compare across studies. In order to promote consistent and useful research on engagement, researchers
must be careful and clear on how they define and assess engagement (Appleton, Christenson, & Furlong, 2008; Eccles & Wang, 2012).

One issue is based on the number of indicators used to represent engagement. Although most researchers agree that student engagement is composed of three indicators (Fredricks et al., 2004; Lam, Wong, Yang, & Liu, 2012; Wang & Degol, 2014; Wang, Willett, & Eccles, 2011), others argue that the three-indicator definition is missing an additional indicator or could be simpler with just two indicators (Reschly & Christenson, 2012). The two-indicator and four-indicator definitions are not as widely recognized. This issue of indicators has plagued the term engagement by the concept of “jingle and jangle” (Reschly & Christenson, 2012). Jingle occurs when the term engagement refers to different concepts; jangle occurs when different terms (i.e., participation, academic engagement, behavioral engagement, and adaptive behavior) refer to the same or similar constructs.

Another issue with defining engagement is that engagement is multilevel sensitive (Wang & Degol, 2014). Researchers have examined engagement at three different levels: the overall school, the classroom or subject domains, or specific activities within classrooms (Eccles & Wang, 2012). Most researchers tend to examine engagement at the school level because it has more practical implications for school professionals. Some researchers only examined engagement at one level while others examined engagement at multiple levels (Skinner & Pitzer, 2012). Given that many researchers fail to indicate the level of engagement they examined (Eccles & Wang, 2012), it is critical that researchers state their assessment of engagement level. Together, the issues related to its measurement indicate researchers must be clear on how they define and assess engagement. In this study, two indicators of engagement were assessed, and the overall school level of engagement was examined. Behavioral engagement was not assessed
in this study due to the nature of this study using a participatory action research (PAR) process (McIntyre, 2008). During the selection of constructs of interest to both the researchers and stakeholders (i.e., school personnel), and then selecting instruments for research data collection, it was decided that only affective and cognitive engagement were to be assessed.

The assessment of engagement is primarily assessed via student perspectives (Fredricks et al., 2011; Reschly & Christenson, 2012). Student self-reports of engagement are likely to be accurate and representative of their actual engagement (Reschly & Christenson, 2012). Two indicators of engagement, affective/emotional and cognitive engagement, represent internal processes, feelings, and attitudes within students. Students are more likely to be aware of their own feelings and attitudes. Unless teachers have substantial experience with their students or knowledge about them to understand their students’ self-perceptions, it would be challenging for teachers to rate students’ feelings of belongingness and attitudes towards classes (Reschly & Christenson, 2012). In addition, teachers with large rosters of students tend to have limited experiences with their students, particularly teachers in secondary schools. Given the concerns of using raters other than students, most available instruments used to assess engagement are based on student self-reports or observational measures of students in classes (Fredricks et al., 2011).

In this study, student self-reports of student engagement were used.

**The significance of student engagement.** Student engagement is essential to school learning and academic performance (Finn & Zimmer, 2012). A student’s engagement has direct and indirect effects on their academic achievement (Finn & Rock, 1997; Iyer, Kochenderfer-Ladd, Eisenberg, & Thompson, 2010; Li & Lerner, 2011; Reeve, 2012; Reschly & Christenson, 2012; Totura et al., 2014). Behavioral indicators of engagement (i.e., completing tasks and participating in class) and affective indicators of engagement (i.e., feeling identified with the
school) are linked with higher academic achievement (Finn & Zimmer, 2012). Students who demonstrate consistent engagement are more likely to develop and maintain habits that lead to indirect and long-term outcomes of achievement and school completion (Finn & Zimmer, 2012).

In contrast, students with low engagement are at-risk for poor student outcomes. Continued low engagement is associated with school failure and delinquent behaviors such as increased delinquency, substance use, and risky sexual behavior (Li & Lerner, 2011; O’Farrell & Morrison, 2003). In a four-year longitudinal study of 1,977 middle school students in public schools, researchers found several trajectories of behavioral and emotional engagement (Li & Lerner, 2011). The majority of students were on neutral or positive trajectories. However, a small percentage of students were on negative trajectories with five percent experiencing decreased emotional engagement and 20 percent experiencing decreased behavioral engagement, respectively (Li & Lerner, 2011). These negative trajectories are concerning given that they are related to school dropout (Finn & Rock, 1997; Reschly & Christenson, 2012; Wang & Fredricks, 2014). In a compendium report by the U.S. Department of Education of trends in high school dropout and completion rates in the United States, it was found that 49 percent of ninth grade students dropped out of school because they disliked school (McFarland, Stark, & Cui, 2016). Students who had declining student engagement over time, but remained in school, were likely to complete school with poor academic performance and view postsecondary education less favorably (Finn & Zimmer, 2012). Factors within schools that predict lower engagement can be ameliorated in order to prevent adverse outcomes for students.

**Student engagement and bullying victimization.** Students’ engagement in school is also negatively related with bullying victimization (Cunningham, 2007; Konold & Cornell, 2015; Mehta et al., 2013; Popp & Peguero, 2012; Ripski & Gregory, 2009). Student engagement is an
important process and outcome for students throughout their schooling (Finn & Rock, 1997; Reschly & Christenson, 2012). Bullying victimization and rejection affects students’ behavioral involvement in their classrooms/schools and their perceptions of not feeling they belong in school (Juvonen, Wang, & Espinoza, 2011; Ripski & Gregory, 2009). School belonging, often viewed as one indicator of engagement, has been found to be an important component of students’ academic success (Wormington et al., 2016). In addition, students who were in schools with prevalent teasing and bullying had lower engagement such that they were less likely to push themselves in school, find school as a valuable experience, and connect with peers and adults in school (Konold & Cornell, 2015; Konold et al., 2014; Mehta et al., 2013). Thus, students are at significant risk for poor engagement when they are bullied or attend schools with high rates of teasing and bullying.

Although the relationships between bullying victimization and mental health, behavioral functioning, academic performance have largely been examined (Cook et al., 2010; Kljakovic & Hunt, 2016; Nakamoto & Schwartz, 2010; Swearer et al., 2010), there are a limited number of studies where bullying victimization was assessed in conjunction with student engagement. The existing research suggests that bullying and bullying victimization are risk factors for students’ engagement, but further research is needed to learn more about these relationships. There is a gap in the existing research that examines whether different forms of bullying victimization are associated with different forms of engagement. In addition, further research is needed to understand if maladjustment from bullying victimization experiences negatively influences student engagement.

**Ecological factors and student engagement.** Using Bronfenbrenner’s theory (1979), numerous ecological factors influence student engagement (Finn, 1989; Finn & Zimmer, 2012).
Students are nested within a set of systems, and as a result, their levels of engagement are influenced by these systems (Bronfenbrenner, 1979; Fredricks et al., 2004; Wang & Eccles, 2013). It is important to understand factors or systems within school environments that are positively associated with student engagement (Archambault, Janosz, Morizot, & Pagani, 2009; Eccles & Wang, 2012; Lam et al., 2012), since certain factors are impossible or difficult to change such as a student’s racial/ethnic background or the socio-economic status (SES) of their families; and there are children at higher-risk (e.g., children of Latino and Black backgrounds and children from families of low SES) to be less engaged in school over time (Li & Lerner, 2011; Sharkey, You, & Schnoebelen, 2008). One system within the ecological model, teachers and adults at school, have had a positive influence on student engagement (Juvonen, Espinoza, & Knifsend, 2012, Lam et al., 2012; Sharkey et al., 2008; Wang & Eccles, 2012; 2013).

Social Support from Teachers and Adults

**Conceptual framework for social support.** According to Gottlieb (2009), “social support refers to social-psychological and interpersonal processes that maintain and promote health and well-being” (p. 913). The sources of social support derive from an individual’s social network such as friends, family members, mentors, or colleagues. The types of social support they can provide varies and can include providing assistance, guidance, or reassurance. The positive effects of social support can arise from direct social interactions within an individual’s social network or having individuals from the social network as available resources (i.e., social-psychological representation; Gottlieb, 2009). Social support is necessary for meeting basic human needs and for resisting stress (Gottlieb, 2009).

Due to the preponderance of empirical inquiry on social support, Tardy (1985) noted there were distinctions among the types and manifestations of social support that existed. Tardy
(1985) identified five elements in understanding social support: direction, disposition, description or evaluation, content, and network. The first dimension suggests that social support is bi-directional, indicating that it can be received and provided. Disposition suggests that support is available/accessible, or it is enacted. The third dimension suggests that support can be evaluated (i.e., satisfaction of support) or described (i.e., the extent that support occurs). Content states that support is multi-dimensional and encompasses different categories of content: instrumental (i.e., resources), informational (i.e., sharing knowledge), emotional (i.e., empathy and caring), or appraisal (i.e., evaluative feedback) support. The last and fifth dimension, network, refers to the members within the interpersonal context of the individuals being studied. For youth in schools, their networks may include friends, peers in class, family members, siblings, teachers, neighbors, community members. Tardy (1985) argued that researchers must explicitly indicate how they assess social support because it can be characterized in a multitude of ways. In this study, social support was represented as being (1) received, (2) available and enacted, (3) evaluative, (4) and encompasses emotional and instrumental support from (5) teachers and adults at school.

**Theoretical models for teacher’s social support.** The relationships between social support from teachers and students’ functioning can be explained by two general theoretical models on social support: the main effect model and the stress-buffering model (Cohen et al., 2000). In the main effect model, social support is conceptualized to have a universal positive effect on all individuals (Baumeister & Leary, 1995; Cohen et al., 2000). In the context of school systems, this model applies to the dynamics between teachers and students. In general, committed teachers who are enthusiastic and demonstrate genuine concern for students’ success find ways to support their students (Bryson & Hand, 2007). Classrooms where teachers were
perceived as providing high levels of emotional support were characterized as egalitarian, with peers getting along with one another (Gest & Rodkin, 2011; Hendrickx et al., 2016). In addition, greater perceived teacher support was related to better social-emotional outcomes for students including fewer school problems, lower internalizing problems, better school adjustment, and higher academic effort (Averdijk et al., 2014; Sakiz et al., 2012; Tennant et al., 2015).

In the stress-buffering model (Cohen et al., 2000), social support is thought to be a factor in reducing the adverse effects of stress when individuals encounter stressful experiences and events (Cohen & Wills, 1985; Tardy, 1985). When students have access to teacher support, it may have the potential to ameliorate or protect them from the effects of stressful events in school such as bullying victimization (Davidson & Demaray, 2007; Demaray & Malecki, 2006; Rigby, 2000; Ttofi et al., 2014). Thus, teachers’ social support is considered a protective factor in reducing the possible negative consequences of bullying victimization experiences.

**Teacher social support and bullying victimization.** Teacher social support plays a key role in bullying victimization. Secondary schools with high levels of teacher and adult support were associated with reduced levels of prevalent teasing and bullying (PTB; refers to reporting on the climate of bullying being a problem at a school which is distinct from self-reported bullying victimization or perpetration), bullying, and other general forms of victimization (Cornell, Shukla, & Konold, 2015; Gregory et al., 2010; Konold & Cornell, 2015; Konold et al., 2014). Malecki and colleagues (2008) found that social support may have a potential mediating role between the relationship of bullying victimization experiences and students’ adjustment. Together, these findings highlight the importance of social support from teachers in the context of bullying victimization experiences and student outcomes; and the findings indicate the need to examine whether teacher support reduces the possible adverse effects from being bullied.
Consistent with the stress-buffering model, teacher’s social support has been examined as a moderator of the relationship between bullying victimization and student outcomes since bullying victimization is a stress-inducing experience (Davidson & Demaray, 2007). In a study by Davidson and Demaray (2007) of 355 middle school students, social support was found to buffer victims of bullying from internalizing distress (i.e., symptoms of anxiety and depression). As male victimized students perceived more teacher, classmate, and school support, they reported less internalizing distress from bullying victimization. As female victimized students perceived more parent support, they reported less internalizing distress from bullying victimization. Social support may serve different functions for male and female students and for different types of problems. Nevertheless, teacher’s social support for males was found to be a protective factor in interrupting the consequences of victimization experiences (Davidson & Demaray, 2007).

In another study, Malecki and colleagues (2008) examined the mediating role of social support between bullying victimization experiences and clinical maladjustment, personal adjustment, and emotional symptoms. They assessed 142 middle school students from low socio-economic backgrounds who were predominately Latino. They found that social support mediated the relationships such that when social support from teachers was taken into account, the associations between bullying victimization and their personal adjustment was improved and their clinical maladjustment and emotional symptoms were lessened (Malecki et al., 2008). Thus, it appears the mechanisms of social support from teachers holds promise in explaining the link between bullying victimization experiences and adverse consequences.

In a more recent study, Tanigawa and colleagues (2011) assessed whether social support acted as a protective factor for the bullying victimization experiences of 544 middle school
students. The investigators sought to clarify the main-effect and the stress-buffering roles of social support against symptoms of depression. The researchers found evidence of main effects when teacher’s social support had a positive influence on students’ reduced symptoms of depression. Although, no evidence for the stress-buffering influence of teacher social support was found, other forms of social support had a buffering effect for victimized males. Although these findings on teacher support contradict the moderation findings in the Davidson and Demaray (2007) study, the stress-buffering effects may depend on the outcome of interest (Rosenfeld et al., 2006). In the Davidson and Demaray (2007) study, the outcome measure was an assessment of internalizing problems (i.e., includes depression and anxiety) that were specific to being bullied, whereas, in the Tanigawa et al. (2011) study, the outcome measure was an assessment of depressive symptoms, unrelated to being bullied. Teacher support may have a more protective role in internalizing problems specific to being bullied compared to general depressive symptoms. The differences in the results may also be due to the sample of the students. In the Davidson and Demaray study, the population of students were nearly all Caucasian and from rural communities, whereas, in the Tanigawa et al. study, the population of students were primarily Hispanic and from urban communities. Students who live in rural and urban communities may be perceive social support differently, which may be due to individuals having different values in rural/urban cultures (Bitz, 2013). Overall, differences in results between studies indicate the need to further understand whether teacher social support may act as protective factor in interrupting the consequences of bullying victimization.

**Teacher social support and student engagement.** Teacher’s practices and interactions with students influence the classroom ecology (Gest & Rodkin, 2011; Danielsen et al., 2010; Klem & Connell, 2004; Ruzek et al., 2016). Teachers who form positive relationships with their
students increase the likelihood that their students remain engaged in school (Bryson & Hand, 2007; Pianta et al., 2012). When students feel respected and supported by their teachers, students tend to report higher levels of engagement (Fredricks et al., 2004). For instance, relational/emotional support was found to be highly related to positive engagement among students and academic success (Danielsen et al., 2010; Pianta et al., 2012; Ruzek et al., 2016). In addition, secondary schools with high levels of teacher and adult support were associated with increased affective and cognitive engagement among students. When teacher support was compared with peer and parent support, teacher support was found to be the strongest form of support associated with student engagement (Lam et al., 2012; Wang & Eccles, 2012). Teachers may have the largest influence on the engagement of their students. Thus, student engagement is influenced from the interactions between teachers and students, and the nature and quality of those interactions.

Evidence-based intervention for student engagement. In one evidence-based intervention for promoting student engagement called Check & Connect, support from teachers and adults has an integral role in the intervention (Lehr et al., 2004). In the intervention, students at risk for low engagement are paired with a teacher or adult who serves as their check-in person. The intervention was developed on the premise that teachers and adults who have structured and consistent check-ins with students on a daily/weekly basis can prevent students at-risk for low engagement from continuing a negative trajectory of low engagement. The intervention emphasizes relationship building between a student and an adult from school. Students who participated had higher behavioral engagement and reduced poor behavioral outcomes of truancy, tardiness, suspensions, course failures, and dropout (Anderson et al., 2004; Sinclair, Christenson, & Thurlow, 2005). It was found that the relationship between the adult and student
was one of the factors responsible for the positive findings (Lehr et al., 2004). The quality and
closeness of relationships between adults from school and students matter. The findings of
positive teacher-student relationships and teacher support as key aspects of promoting student
engagement is encouraging given that student-teacher interactions are viewed as alterable (Pianta
et al., 2012; Reschly & Christenson, 2012; Sharkey et al., 2008; Wang & Eccles, 2012).

Gaps in the Literature

Bullying victimization and student engagement. There remain gaps in the research on
the relationships between bullying victimization and student engagement. There is minimal
research on whether students are at risk for low student engagement as a result of different forms
of bullying victimization. A few studies have found that a school climate of prevalent teasing and
bullying (i.e., assessed as PTB; see Konold et al., 2014) influences one or two aspects of
engagement (Konold & Cornell, 2015; Konold et al., 2014; Mehta et al., 2013) and reports of
general bullying victimization (i.e., as one total construct) influences one or two aspects of
engagement (Cunningham, 2007; Popp & Peguero, 2012; Ripski & Gregory, 2009). However,
bullying victimization may take many forms (Wang et al., 2009), such as physical, verbal (Crick
& Dodge, 1996), and relational or social bullying (Crick & Grotpeter, 1995). In one study,
Loukas and colleagues (2012) assessed bullying victimization as two separate constructs,
relational and physical victimization, and they found relational victimization, not physical
victimization, explained the relationship between psychosocial adjustment problems and
characteristics of affective engagement (i.e., measured as school connectedness; Loukas et al.,
2012). These findings indicate that specific forms of bullying victimization do not have the same
or equal consequences on school-related outcomes for students. Others have indicated that the
association between various forms of bullying victimization and student outcomes is complex
Nevertheless, a gap in the research is whether self-reported verbal/relational and physical victimization is associated with affective and cognitive engagement. Both constructs of bullying victimization and engagement are multi-dimensional and need to be assessed in that manner. In addition, it is possible that due to each type of bullying victimization occurring at different rates, there may be differences in how each type of bullying victimization influences each aspect of engagement. Bullying victimization occurs at different rates, with verbal and relational bullying being the most common form experienced by students compared to physical bullying (Vaillancourt et al., 2010; Wang et al., 2009). These aims could provide more clarity to researchers and school professionals on bullying prevention and intervention. Therefore, this study clarified the relationship between two types of bullying victimization and two types of engagement and used measurement tools that conceptualized the constructs as multi-dimensional.

**Maladjustment and student engagement.** Researchers have yet to examine if social and emotional maladjustment from bullying victimization is negatively associated with student engagement. Victimized students may experience a host of social and emotional maladjustment problems that can interfere with their ability to engage in school. A few studies have found that youth who experience mental health problems tend to have poor educational attainment or engagement (Frojd et al., 2008; McLeod & Fettes, 2007; Totura et al, 2014). A gap in these previous studies was that researchers have yet to assess whether distress specific to bullying victimization influences school functioning, rather than evaluating overall distress and school functioning. Bullying victimization is a relevant psychosocial stressor in the lives of students. The advantage of evaluating maladjustment from bullying victimization is to clarify if distress
from bullying victimization experiences influences school functioning and assess whether there are consequences of being bullied on school functioning.

In addition, in a study that used mediation analyses, it was found that psychosocial adjustment problems such as depressive and conduct problems had a negative indirect effect on school connectedness through relational victimization (Loukas et al., 2012). Loukas and colleagues noted that other variables may offer more explanatory power as mediators between bullying victimization and a school-related variable such as connectedness. They conclude that further research in this area would be helpful to further understand whether adjustment problems explains the relationship between victimization and school outcomes. They suggest that other variables should be assessed as mediators such as variables that result from bullying victimization (e.g., peers feeling rejected due to being bullied). The assessment of social and emotional maladjustment from bullying victimization experiences may be a variable that explains the relationship between bullying victimization and student outcomes.

Research on these relationships could provide a better understanding on whether social and emotional maladjustment from bullying victimization also places students at-risk for poor student engagement. Therefore, this study examined the relationship between maladjustment and two types of student engagement, and if maladjustment plays a mediation role between bullying victimization and student engagement.

**Pilot research on teacher support, bullying victimization, and engagement.** Despite what is known about social support for students, bullying victimization, and student outcomes, there remains further avenues for understanding these relationships. There is evidence suggesting victims of bullying perceive less support from teachers (Demaray & Malecki 2006; Rigby, 2000); teacher support is associated with engagement among students (Danielsen et al., 2010;
Konold & Cornell, 2015; Konold et al., 2014; Lam et al., 2012; Pianta et al., 2012; Ruzek et al., 2016; Wang & Eccles, 2012); and teacher support alters the links between bullying victimization on adjustment and emotional issues (Davidson & Demaray, 2007; Malecki et al., 2008).

According to an extensive PsychInfo search using the search terms “teacher support,” “bullying victimization,” “social and emotional maladjustment,” and “engagement,” zero studies were found, suggesting no research has studied these relationships simultaneously. However, in a recent pilot study, research has been conducted on several of these constructs with a sample of 516 middle and high school students who were predominately lesbian, gay, bisexual, queer, and questioning (LGBQQ; Garcia, Martin, Swearer, Damme, & Palacios, in preparation). Support from teachers and school staff members explained the associations between the prevalence of teasing and bullying (PTB) in schools and students’ engagement (i.e., cognitive and affective aspects). The results revealed that teacher support may act as a protective factor that minimizes the effects of teasing and bullying on student engagement (Garcia et al., in preparation).

While these preliminary findings are promising, there needs to be additional research on whether teacher support moderates the relationship between bullying victimization and student engagement (a moderation model), and whether it moderates the relationship between bullying victimization and social and emotional maladjustment (a moderated mediation model). Research on the buffering effects of teacher support may provide additional evidence that supportive teachers and adults in school can help in reducing the influence of bullying victimization on engagement, and the influence of bullying victimization on maladjustment.

**Research Questions and Hypotheses**

Based on a review of theory and empirical research, the study addressed the following research questions and hypotheses:
1. Are students’ perceptions of bullying victimization associated with their levels of student engagement?

   Hypothesis 1: It is hypothesized that verbal/relational and physical bullying victimization will have negative associations with affective and cognitive engagement.

2. Do students’ perceptions of teacher support moderate the associations between bullying victimization and student engagement (see Figure 1)?

   Hypothesis 2: It is hypothesized that teacher support will moderate all pathways between verbal/relational and physical victimization and affective and cognitive engagement. It is hypothesized that, as students perceive higher levels of teacher support, the association between bullying victimization and student engagement weakens.

3. For students who report bullying victimization, are their perceptions of social and emotional maladjustment associated with their levels of student engagement?

   Hypothesis 3: It is hypothesized that social and emotional maladjustment will have negative associations with affective and cognitive engagement.

4. Does social and emotional maladjustment mediate the association between verbal/relational and physical victimization and student engagement (see Figure 2)?

   Hypothesis 4: It is hypothesized that social and emotional maladjustment will mediate the association between bullying victimization and student engagement. It is hypothesized that bullying victimization will be positively related to maladjustment, and maladjustment will be negatively related to student engagement. Maladjustment
will fully explain the association between bullying victimization and student engagement.

5. When extending the model in research question four, do the mediation effects differ across levels of a moderator variable—teacher support (i.e., a moderated mediation model; see Figure 3)?

Hypothesis 5: It is hypothesized that within the mediation model, the moderator will influence the pathway of the predictor variable to the mediator variable. As students perceive higher levels of teacher support, the association between bullying victimization (predictor) and maladjustment (mediator) weakens.
CHAPTER III
METHODS

Participants

Participants for the study are from an ongoing research study, “Bullying and Victimization among School-aged Youth: A Participatory Action Research Study.” The ongoing study has been approved by the University of Nebraska-Lincoln, Institutional Review Board (IRB # 20110811297FB; Appendix A). Numerous schools across the country have participated in this study since its inception in 2011. A participatory action research (PAR) process was utilized.

**Participatory action research.** Participation in PAR represents researchers and stakeholders collaborating on all phases of the research—defining goals of the partnership, designating roles and responsibilities, selecting instruments for research data collection, and developing strategies to handle unexpected occurrences. Action in PAR represents the process of collecting, reviewing, discussing, interpreting, and using the research data to address personal and environmental factors in the stakeholders’ context (McIntyre, 2008). Research in PAR represents the systematic investigation of studying a focal research issue. By the end of the PAR process, researchers and stakeholders become aware of the problems that exist among the studied populations, and make decisions, based on data, to improve the conditions of the studied populations. Thus, the key components of PAR include participation and action from stakeholders and researchers towards making positive changes in the community of the stakeholder.

The purpose of the ongoing study is to assist school personnel (i.e., stakeholders) to understand and address bullying and bullying victimization within their own schools. School
personnel initiate contact with Dr. Swearer, the primary investigator of the study, about gathering data on bullying, bullying victimization, and other variables of interest (i.e., related psychological and educational constructs). The process involves collecting data and developing bullying prevention and intervention strategies that address bullying problems in the stakeholder’s school. Thus, school personnel are empowered to engage and create positive changes in their school.

Participants were recruited from an independent school in a mid-sized Western city in the United States. An independent school is a private school that is overseen by a board of trustees. The school serves over 900 students, and it is made up of four school levels: grades Pre-K to K, grades one to five, grades six to eight, and grades nine to 12. About 66 percent of the secondary students (i.e., grades six to 12) participate in at least one school sports program. School personnel contacted Dr. Swearer in the summer of 2017 about their interest in collecting data on bullying and bullying victimization in their schools. Using the PAR framework, researchers from UNL collaborated with school personnel to assess student perspectives of bullying and bullying victimization, along with select constructs of interest to both school personnel and researchers (i.e., student perspectives of student engagement and teacher support). Participants in grades six to eight who assented and had their parents provide consent were included in the study. The focus was on middle school students because student engagement (Wang & Eccles, 2012) and teacher support (Fredricks et al., 2004; Wit, Karioja, Rye, & Shain, 2011) are found to decline as students advance through higher grade levels beginning in the middle school. In addition, the measures of student engagement and teacher support were designed for secondary aged students (Konold & Cornell, 2015; Konold et al., 2014). Additionally, while the initial plan was to survey both middle and high school students, the school personnel requested that only middle school
students be surveyed given that their high school students were already participating in another school-wide initiative that involved them providing student perspectives on similar constructs (i.e., social-emotional learning).

Data collection began on December 6, 2017 and ended on January 8, 2018. During the data collection, it was expected that about 150-200 secondary students would participate, of the total maximum number of students in this middle school (i.e., 220). Three parents declined to have their child participate. The total sample consisted of 179 participants. Eight participants were subsequently removed from the database for the following reasons: the cases were 95% incomplete (n = 7, 3.91% of the original sample), or there was a duplicate response, and the most complete and earliest-recorded case was kept (n = 1, 0.55% of the original sample). Following data cleaning, 171 participants were included in the final analyses. Participants in the study were between the ages of 11 and 14.

Participants were told there are no direct monetary benefits for participating in the ongoing study. However, other benefits could arise from participating. For instance, the topic of the study may have opened up opportunities for students, school professionals, and family members to discuss issues of bullying/bullying victimization in their school and how they can be addressed. In addition, the results from the study could be used to heighten awareness among school professionals about the relationships between bullying victimization, maladjustment, student engagement, and teacher support.

The investigators followed ethical procedures to ensure the safety and well-being of participants. Participants were told that their responses are confidential and anonymous. The names of participants were not disclosed to anyone who was not associated with the research. If participants decided they want to withdraw from the study, they could do so without any penalty.
to them. In addition, participants were told the risks for participating in the studies should be minimal. Participants may have experienced mild discomfort when completing the bullying victimization and bullying items because they might think back to a time when they experienced bullying and distress, if any. To alleviate any potential discomfort, at the completion of the survey, all participants were given a list of school counselors, therapists, and psychologists who were available to assist students feeling distressed (Appendix B).

Instrumentation

**Demographic variables.** Demographic variables consisted of students’ age, gender, grade, race/ethnicity, language spoken, and country of origin (Appendix C). Participants self-reported on these variables after they assented to participate in the study. These demographic variables were included on the Bully Survey-Student Version (BYS-S; Swearer, 2001). The following measures used to assess the main study variables (i.e., bullying victimization, social and emotional maladjustment, student engagement, and teacher support) are copyrighted and were used in this study with permission by their respective author.

**Bullying victimization and maladjustment.** Bullying victimization and maladjustment experiences were assessed in the BYS-S (Appendix D). The BYS-S is a four-part (i.e., parts A, B, C, and D), 46-item, self-report survey that assesses students’ experiences and perceptions of bullying as a victim, bystander, and bully during the past school year. The BYS-S survey is a comprehensive measure for assessing self-reported bullying experiences and is included in the CDC compendium of bullying assessments (Hamburger, Basile, & Vivolo, 2011).

On the first page of the survey, and at the beginning of each part (excluding part D), participants were instructed to read the bullying definition (i.e., definition includes three criteria) and five examples of bullying behaviors. In part A, participants reported on their experiences
with bullying victimization. In part B, participants reported on their experiences witnessing others in their school get bullied. In part C, participants reported on their experiences of bullying others. Questions in parts A, B, and C, assess specific details of bullying incidents (e.g., where, how, who, why). In part D, all participants reported on their overall attitudes of bullying, regardless of their responses to parts A, B, and C. The first question in parts A, B, and C is a dichotomous screener question (i.e., “Yes” or “No”) about students’ involvement of bullying. If participants indicated yes, they continued completing that part of the survey, and if they indicated no, they were instructed to skip that part, and begin at the next part. For example, if a participant indicated “no” to the dichotomous question in part B (i.e., they have not witnessed students being bullied during this school year), the participant skipped to part C.

The entire BYS-S was administered to participants; however, only the following scales from part A were examined in the research questions: Verbal and Physical Bullying Scale (VPBS) and Social and Emotional Maladjustment Scale (SeMS). Minor modifications were made to the administration of the BYS-S such that all participants completed the VPBS and SeMS from part A, prior to completing the entire BYS-S.

**Verbal/relational and physical bullying.** The VPBS (Appendix E) was used to assess self-reported bullying victimization indicating how students were bullied during the past school year and how often they were bullied. This scale consists of 13 items that assesses different subtypes of bullying behavior: verbal/relational, physical, and cyber. Seven items assess verbal/relational bullying (i.e., “called me names,” “made fun of me,” “played jokes on me,” “wouldn’t let me be a part of their group,” “nobody would talk to me,” “wrote bad things about me [i.e., on paper], “said mean things behind my back”), five items assess physical bullying (i.e., “said they will do bad things to me,” “broke my things,” “attacked me,” “pushed or shoved me,”
“threatened me”), and one item assesses cyberbullying; however, cyberbullying was not examined in this study. Participants rated the items on a five-point scale: 1 (never happened), 2 (rarely happened), 3 (sometimes happened), 4 (often happened), and 5 (always happened). The scores for verbal/relational and physical bullying are each summed up to yield a total score for each form of victimization, with higher scores indicating greater bullying victimization, and lower scores indicating lower bullying victimization. The score was used as a continuous measure in the current study.

Content evidence of validity is supported for the VPBS. The purpose of this assessment (i.e., to assess self-reported bullying victimization of verbal/relational and physical types) aligns with the content domain of this scale. This scale purports to assess bullying per Olweus’s definition of bullying by having participants read the bullying definition that includes three criteria and five examples of bullying behaviors prior to completing the scale items. Although bullying can be a broad construct, the VPBS items of bullying are represented by specific/identifiable behaviors and dimensions of bullying (i.e., verbal/relational or physical form of bullying victimization). Experts in assessing bullying have included this scale in the CDC compendium of bullying assessments (Hamburger et al., 2011) suggesting the content of the scale captures bullying behaviors.

Previous investigations have provided evidence of validity and reliability for the VPBS with secondary aged students. In several different studies, structural evidence of validity evidence was examined (Radliff et al., 2016; Swearer et al., 2008; Wang et al., 2015; Werth et al., 2015). In three of the studies, the participants were middle school students and comprised of male and female students (Radliff et al., 2016; Wang et al., 2015; Werth et al., 2015), and in one study the participants were male students in high school (Swearer et al., 2008). In all the studies,
the percentage of variance explained from the two scales was higher in the verbal/relational than in the physical bullying. The verbal/relational bullying scale explained 34.23% (Swearer et al., 2008), 32.66% (Radliff et al., 2016), 41.14% (Werth et al., 2015), 57.74% (Wang et al., 2015) of the variance, respectively. The physical bullying scale explained 23.43% (Swearer et al., 2008), 8.26% (Radliff et al., 2016), 15.34% (Werth et al., 2015), 15.34% (Wang et al., 2015) of the variance, respectively. The researchers conducted either a principal components analysis or a principal axis factoring and found a two-component/factor solution for verbal/relational and physical bullying, with expected items loading onto each dimension. The loadings on the components/factors were .30 or above. In one study, the item “played jokes on me” for the verbal/relational scale had a low factor loading (<.30) and as a result was removed from the analyses (Radliff et al., 2016). The items “said they will do bad things to me” for the physical scale and “played jokes on me” for the verbal/relational scale in the Werth and colleagues study had double loadings on each factor above (.30) and as a result was removed from the analyses. In general, the structural evidence of validity results are consistent across studies and support that the VPBS is a multi-dimensional assessment of bullying behaviors and is represented by two dimensions of bullying. In addition, Cronbach’s coefficient alpha indicated satisfactory evidence of internal consistency for the verbal/relational ($\alpha = .80, .85, .92, .81$) and physical bullying scales ($\alpha = .67, .79, .74, .68$) in Radliff et al. 2016, Swearer et al. 2008, Wang et al. 2015, Werth et al. 2015, respectively. In this study, the internal consistency for the physical victimization and verbal victimization scales was .85 and .89, respectively.

**Social and emotional maladjustment.** The SeMS (Appendix F) was used to assess the extent of self-reported maladjustment, if any, from experiencing bullying victimization. Participants were asked “how much of a problem was the bullying for you?” This six-item scale
assesses two subtypes of maladjustment: social (e.g., “I couldn’t make friends”) and emotional maladjustment (e.g., “made me feel bad or sad”). Three items are used to assess each subtype. Participants rated the items on a five-point scale: 1 (never a problem), 2 (rarely a problem), 3 (sometimes a problem), 4 (often a problem), and 5 (always a problem). The scores for social and emotional maladjustment are each summed up to yield a total score, with higher scores indicating greater maladjustment, and lower scores indicating lower maladjustment. The score was used as a continuous measure in the current study.

Content evidence of validity is supported for the SeMS. The purpose of this assessment (i.e., to assess maladjustment after a bullying incident in which they were the victim) aligns with the content domain of this scale. This scale purports to assess characteristics of maladjustment in the social domain by assessing relationship problems or difficulties interacting with peers, family, and school staff; and maladjustment in the emotional domain by assessing negative emotional responses such as problems in mood, feeling sick, and having difficulty learning. Although maladjustment can be a broad construct, the SeMS items are represented by identifiable feelings/behaviors and dimensions of maladjustment.

The SeMS was first investigated in research by Werth and colleagues (2015) and they provided preliminary evidence of validity and reliability. The structural evidence of validity was examined using principal components analysis for two groups of students: bystanders (i.e., non-victims) and victims of bullying. The loadings on the components were .30 or above. They found for bystanders, a two-component solution (explained variance was 45.31%, and 20.74%, respectively) with social and emotional maladjustment as separate dimensions and with expected items loading onto each dimension. They found for victims a one-component solution (explained 54.95% of variance). In addition, they found the scales had adequate reliability evidence of
internal consistency. For the bystander group, social and emotional maladjustment was $\alpha = .70$ and $\alpha = .74$, respectively, and for the victim group, the scale was $\alpha = .83$. These findings support the use of the SeMS scale in assessing maladjustment of bullying victimization. Given that the SeMS scale was conceptualized as one factor rather than two factors for respondents classified as victims of bullying, in this study, which also examined victims of bullying, social and emotional maladjustment was evaluated as one factor. In this study, the internal consistency for the social and emotional maladjustment scale was .88.

**Student engagement.** Student engagement was assessed using the student engagement scale of the Authoritative School Climate Survey (ASCS; Konold et al., 2014; Appendix G). The six-item scale was used to assess two indicators of engagement in school: affective and cognitive engagement. The scale does not include the assessment of behavioral engagement. The affective engagement subscale consists of three items that examine positive liking and belonging at school. The cognitive engagement subscale consists of three items that examines the use of strategies that are essential to learning such as completing homework, obtaining good grades, and having motivational desires to learn. Example items for the scale include “I like this school,” and “I want to learn as much as I can at school.” The items in this scale were drawn from select measures that assess student’s commitment, investment, and general attitudes toward school (Lau & Roeser, 2002; Thornberry, Lizotte, Krohn, Farnworth, & Jang, 1991). Participants rated the items on a four-point scale: 1 (*strongly disagree*), 2, (*disagree*), 3 (*agree*), and 4 (*strongly agree*). The scores for affective and cognitive engagement are each summed up to yield a total score, with higher scores indicating greater engagement, and lower scores indicating lower engagement. The score was used as a continuous measure in the current study.
Researchers have evaluated the psychometric properties of the student engagement scale with secondary students (Konold & Cornell, 2015; Konold et al., 2014). Structural evidence of validity was found supporting that the scale is a multi-dimensional instrument, represented by two factors of engagement. Exploratory and confirmatory factor analyses indicate a two-factor model represented the items reasonably well, and the solution demonstrated good model fit (Konold et al., 2014). In addition, concurrent evidence of validity was found such that the engagement scale was negatively correlated with measures of school-wide teasing and bullying; and it was positively correlated with dimensions of school climate (Konold et al., 2014). Lastly, reliability evidence of internal consistency fell within acceptable ranges: affective ($\alpha = .89$), cognitive ($\alpha = .71$), and total ($\alpha = .77$), respectively (Konold & Cornell, 2015; Konold et al., 2014). Thus, there is adequate support for the psychometric properties of the student engagement scale. In this study, the internal consistency for the affective engagement and cognitive engagement scales was .85 and .73, respectively.

**Teacher support.** Support from teachers was assessed using the items from the student support scale in the Authoritative School Climate Survey (ASCS; Konold et al., 2014; Appendix H). The scale is referred in this dissertation study as the teacher support scale for clarity and to be consistent with the term *teacher support* that is used throughout this study. The teacher support scale consists of eight items that assess responsiveness, or the perception that all teachers and adults at school are supportive, respectful, and willing to help all students via two dimensions: students’ feeling respected by teachers and adults, and students’ willingness to seek help from teachers and adults. Example items include “most teachers and other adults at this school care about all students,” and “there are adults at this school I could talk with if I had a personal problem.” The items in this scale were drawn from select measures that assess whether
teachers and adults in schools are supportive and respectful of students (Austin & Duerr, 2005), and help-seeking behaviors among students in schools (Bandyopadhyay, Cornell, & Konold, 2009). Items are rated on a four-point scale: 1 (strongly disagree), 2, (disagree), 3 (agree), and 4 (strongly agree). The scores for this scale are summed to yield a total score of support, with higher scores indicating higher levels of support among teachers and adults of students. The score was used as a continuous measure in the current study.

The items in the teacher support scale assess a broad conceptualization of teacher and adult support for students. The advantage of this scale is that it requires students to reflect on how all students in school receive support from all teachers and adults at school. In other words, students must consider teachers and adults at school as a collective group and also their peers rather than just themselves. In secondary schools, students interact with numerous teachers and adults throughout their school days. Having students report on all the teachers and adults at school as a collective group is a strong indicator of the supportive environment teachers and adults provide in schools. If students solely report on one teacher’s actions such as their favorite teacher, their data could be misrepresentative of all teachers in a given school. A broader assessment of support may help capture an objective view of support students receive from teachers and adults.

Research findings on the psychometrics of the teacher support scale have supported its use with secondary students (Konold & Cornell, 2015; Konold et al., 2014). For construct evidence of validity, exploratory and confirmatory factor analyses were conducted to assess the factor structure of the scale. The items of the scale loaded well onto one factor, and the solution demonstrated good model fit (Konold et al., 2014). Concurrent evidence of validity was supported given that the teacher support scale was associated with other constructs in the
expected directions. Support was positively related with cognitive and affective engagement and another dimension of school climate (i.e., fair and respectful discipline among school personnel); and it was negatively related with levels of school-wide teasing and bullying (Konold et al., 2014). In addition, the teacher support scale demonstrated acceptable evidence of internal consistency (α = .85), respectively. These findings provide psychometric evidence for the teacher support scale. In this study, the internal consistency for the teacher support scale was .85.

Procedures

All of the procedures in the study were approved by the University of Nebraska-Lincoln Institutional Review Board (IRB; Appendix A). A list of the procedural steps in the PAR design are presented in a flow chart (Appendix I). School personnel of an independent school, located in a mid-sized Western city, have agreed to participate in the research study. The investigators involved in this study have completed the Collaborative Institutional Training Initiative (CITI) training. School personnel and the investigators of the study agreed upon the constructs (e.g., bullying, bullying victimization, psychological and educational constructs) of interest for both parties that were assessed. Next, a signed letter of interest from the school personnel was obtained, which is a document that represents the selected constructs that were analyzed (Appendix J).

All of the consent, assent, and data collection was administered through a web-based survey software, Qualtrics. The investigators provided the school administration of the participating school a web-link to the parent consent form (Appendix K). One week prior to data collection, the school principal sent an e-mail message to the parents of each middle school student that contains the web-link to the parent consent form. The parent consent form provided parents a description of the study, its purpose, duration, and the potential benefits and risks for
their children if they participated.

The investigators created a spreadsheet of the names and e-mail addresses of students with parental consent. The purpose of the spreadsheet was to identify the group of students who received the web-link to the student assent form and survey. In addition, this method of providing the survey prevented students who did not have parental consent to receive the student assent form and survey. Safeguards were created to keep the spreadsheet file password-protected and only accessible to the investigators of the study. During the date of data collection: the school personnel made arrangements to have students complete the surveys electronically during an assigned time in their respective classrooms at school; students on the list received an e-mail with a web-link that provided them with access to the assent form, and if they choose to participate, the measures in the survey. The assent form informed students of their rights as participants of research, a description of the study, its purpose, duration, and the potential benefits and risks if they participated (Appendix L).

If students agreed to participate, they were given instructions for completing the measures on their own at their computer. For students with no parental consent or if students declined to participate, they worked on activities that are typically occurring in the classroom while the other students completed the surveys.

The survey was administered to the participants who assented in the following order: demographics questions, a block of measures (i.e., VPBS, SeMS, teacher support scale, student engagement scale), and the Bully Survey-Student version. Each block of measures was presented in random order to ensure that they were counterbalanced across participants. At the end of the survey, participants were thanked for completing the survey and provided a link to referral sources in their community (Appendix B).
Analyses

Preliminary analyses. The analyses in the study were conducted using the Statistical Package for the Social Sciences (SPSS) Version 25 software, and in Mplus 7.4 statistical software (Muthén & Muthén, 2015). Descriptive statistics were first reported by computing the overall means and standard deviations of verbal/relational and physical victimization, social and emotional maladjustment, the two indicators of student engagement, and teacher support by the total sample. Also, bivariate correlations among the variables were reported. All of the bivariate correlations were reported in tables that indicate significant relationships and the directions of the relationships (i.e., positive or negative). The psychometric properties of the measurements were examined by computing reliability values (i.e., internal consistency) of the scales, and assessing the structural evidence of the scales (i.e., confirmatory factor analysis). It is essential prior to conducting SEM analyses, that the measures possess strong psychometric characteristics of internal consistency and construct evidence of validity (Kline, 2016).

Data analytic strategy. Path analysis was used to analyze research questions one through five. “Path analysis is an approach to modeling explanatory relationships between observed variables” (Raykov & Marcoulides, 2006, p. 77), and it falls under a type of structural equation models (SEM). In all SEM models, hypotheses of direct and indirect effects can be tested. SEM requires large sample sizes. However, several factors (e.g., the number of parameters, interactions) affect sample size requirements (Kline, 2016). In traditional SEM, latent variables (i.e., hypothetical constructs such as intelligence) are evaluated; however, in path analysis, observed variables are evaluated. One caution of evaluating observed variables is that it ignores potential measurement error, most commonly in the independent variables (Kline, 2016).
Hence, it is important that the observed variables possess strong psychometric properties, and in particular high reliability scores.

Path diagrams were used to illustrate the graphical representation of the models under consideration in the study (see Figures 1, 2, and 3). Arrows between variables indicate the variables are directly related. In the study, path analyses were used to assess the relationships between the indicators of bullying victimization, maladjustment of bullying victimization, and student engagement. Steps were taken to adhere to the basic steps of conducting path analyses: a) specify a model of hypotheses according to theory and empirical results, b) select measures and collect data, c) interpret estimates, and d) report results (Kline, 2016). Maximum likelihood estimators were used in all the analysis. In addition, significance testing where a $p$-value of .05 or below was used as an indicator of statistical significance.

**Research question 1.** A path analysis model examined the associations between the variables verbal/relational and physical victimization, with affective and cognitive engagement. Verbal/relational victimization and physical victimization were specified as predicting each indicator of student engagement. The meaningfulness of the association between bullying victimization and student engagement was examined and if the specific path loadings were significant, the hypothesis is supported.

**Research question 2.** Teacher support was evaluated as a moderator and was treated as a continuous variable. Moderation describes effects that occur under certain conditions (Kline, 2016). A path analysis model was analyzed to determine if teacher support moderates the relationship between verbal/relational and physical victimization and affective and cognitive engagement. In order to test the moderator model for student engagement, a model was specified in which verbal/relational victimization, teacher support, and physical victimization predicted
student engagement, (b) verbal/relational victimization * teacher support interaction term predicted student engagement, and (c) physical victimization * teacher support interaction term predicted student engagement. In addition, steps were taken to reduce problems with multicollinearity. Centering terms (i.e., subtracting mean scores on a variable from each observed score) is important in moderation analysis to reduce multicollinearity and to adequately interpret regression coefficients (Aiken & West, 1991). If the specific path loadings (i.e., verbal/relational victimization * teacher support and physical victimization * teacher support interactions to student engagement) were significant, the hypothesis was supported.

Research question 3. A path analysis model was conducted to examine the associations between the variables social and emotional maladjustment with affective and cognitive engagement. Social maladjustment and emotional maladjustment were predicted with each indicator of student engagement. The meaningfulness of the association between maladjustment and student engagement was examined and if the specific path loadings were significant, the hypothesis is supported.

Research question 4. Building upon the model in research question one, another path analysis model was specified, in which a mediational chain was specified with a pathway from verbal/relational and physical victimization to social and emotional maladjustment and from social and emotional maladjustment to student engagement (see Figure 2). The mediation model was tested using several steps (Mackinnon, 2008). First, the initial variables (i.e., verbal/relational and physical victimization) were specified as predictors to the outcome variables (i.e., affective and cognitive engagement). Second, paths were specified from the initial variables to the mediator. Third, the mediator was specified to influence the outcome variables while controlling for the initial variables. The third step was conducted to establish complete
mediation. All of these steps were examined simultaneously in the final mediation model and the indirect effects for the pathways were calculated (Mackinnon, 2008). If specific path loadings were significant (i.e., verbal/relational victimization with social and emotional maladjustment and social and emotional maladjustment with student engagement), and the direct pathway from bullying victimization to engagement was nonsignificant, the hypothesis was supported.

Research question 5. Building upon the model in research question four, another path analysis model was specified, in which teacher support was evaluated as the moderator within the mediation chain (see Figure 3). A model was analyzed to examine if teacher support moderates the relationships between the predictor variable (bullying victimization) and the mediator (social and emotional maladjustment). In other words, teacher support was examined to determine if it influences the relationship between bullying victimization on maladjustment such that it weakens. In order to test the moderated mediation model, a mediation model was specified from research question four while adding the variable teacher support, as predicting maladjustment, affective and cognitive engagement, and (b) verbal/relational victimization * teacher support interaction term predicted maladjustment, and (c) physical victimization * teacher support interaction term predicted maladjustment. In addition, steps were taken to reduce multicollinearity. Centering terms (i.e., subtracting mean scores on a variable from each observed score) is important in moderation analysis to reduce multicollinearity and to adequately interpret regression coefficients (Aiken & West, 1991). If the specific path loadings (i.e., both types of bullying victimization * teacher support interactions to maladjustment) were significant, the hypothesis is supported.
CHAPTER IV
RESULTS

Sample Characteristics

Frequencies and demographic characteristics for the participants are provided in Table 1. The gender distribution of the total sample was approximately even with 47.4% male and 48% female participants. The mean age was 12.55 years ($SD = 0.94$) and participants were between 11 and 14 years-old.

Preliminary Analyses

Descriptive statistics for the main study variables are provided in Table 2. Intercorrelations among primary variables are displayed in Table 3. For all analyses, a series of student demographic variables (i.e., grade, gender, race) were controlled for given that they may be related to the main study variables. The covariates were coded: grade was coded by grade of participants (6, 7, 8); race was coded 0 = Non-White, 1 = White; and gender was coded 0 = female, 1 = male. For students ($n = 11$) who endorsed prefer not to say when answering their racial identity, they were not classified into the White or Non-White groups and their race was entered as missing data. Standardized coefficients are reported in the results.

Independent-samples t-tests were conducted to examine if there were significant differences on scores of the main study variables for two student demographic variables (i.e., gender, race) in which there were two groups to compare. Results of independent-samples t-tests indicated that there were no significant differences for females and males on their scores of verbal/relational victimization $t(161) = .78$, $p = .44$, physical victimization $t(161) = -.64$, $p = .52$, and affective student engagement $t(160) = 1.42$, $p = .16$. However, there were significant differences on scores of social and emotional maladjustment $t(150) = 2.66$, $p < .05$, cognitive...
student engagement $t(154) = 2.06, p < .05$, and teacher support $t(161) = 2.53, p < .05$. For social and emotional maladjustment, females ($M = 10.09, SD = 5.10$) had higher maladjustment than males ($M = 8.20, SD = 3.87$). For cognitive engagement, females ($M = 10.80, SD = 1.28$) had higher cognitive engagement than males ($M = 10.35, SD = 1.502$). For teacher support, females ($M = 27.30, SD = 3.03$) had higher support than males ($M = 25.98, SD = 3.65$). Results of independent-samples t-tests indicated that there were no significant differences for White and Non-White students (i.e., race/ethnicity status groups), on their scores of verbal/relational victimization $t(158) = -1.21, p = .23$, physical victimization $t(158) = .35, p = .73$, social and emotional maladjustment $t(158) = -.69, p = .49$, cognitive student engagement $t(157) = 1.12, p = .26$, and teacher social support $t(158) = 1.34, p = .18$. However, there was a significant difference on the scores of affective engagement $t(158) = 2.77, p < .01$. Non-White students ($M = 10.36, SD = 1.71$) had higher affective engagement than White students ($M = 9.54, SD = 1.66$).

The scales of bullying victimization, social and emotional maladjustment, student engagement, and teacher support were assessed for adequate psychometric qualities. Internal consistency for all the scales were examined and found to be adequate across scales (see Table 4). Although there is a hypothesized structure for the bullying victimization scale (i.e., VPBS; two types of bullying victimization), principal axis factoring (i.e., exploratory factor analysis), rotation method Varimax with Kaiser normalization was examined instead of confirmatory factor analysis because past studies (Radliff et al. 2016; Swearer et al. 2008; Wang et al. 2015; Werth et al. 2015) have found results in which certain items are found to be problematic (i.e., double loading). In two studies no items were found to be problematic (Swearer et al. 2008; Wang et al. 2015); however, in the Radliff et al. (2016) study, the item “played jokes on me” was removed.
from the analyses and in the Werth and colleagues’ study, the items “played jokes on me” and “said they will do bad things to me” were removed.

Two factors were specified in the principal axis factoring analysis, and factor loadings of items were considered adequate if the loadings were above .40 (with no cross loadings). For the twelve items examined in the bullying victimization scale (i.e., Swearer, 2001), two factors were found with adequate factor loadings for expected items (see Table 5). The verbal/relational factor explained 49.96% of the variance and the physical factor explained 10.35% of the variance. The finding of two distinct factors was similar to previous investigations that examined the construct evidence of validity (i.e., past researchers used either principal components analysis or principal axis factoring) for the VPBS with secondary aged students (Radliff et al. 2016; Swearer et al. 2008; Wang et al. 2015; Werth et al. 2015). Two items “said they will do bad things to me,” (intended to load on the physical bullying factor) and “wrote bad things about me (i.e., on paper)” (intended to load on the verbal/relational bullying scale) were found to have double loadings (above .40) on both factors. As a result, these two items were not included in further analyses. Consistent with a previous finding, from Werth and colleagues, the item “said they will do bad things to me” was removed from their analyses because the item had a double loading on both factors. The item “played jokes on me” that was found to be problematic in Radliff et al. (2016) and Werth et al. (2015) was not problematic in these analyses.

Confirmatory factor analysis (CFA) with maximum likelihood (ML) estimation was used to assess the social and emotional maladjustment, student engagement, and teacher support scales. CFAs were used given that these scales have a hypothesized structure that can be evaluated in the CFA framework and previous studies found no problematic items in their hypothesized structures. The interpretation of the CFA findings was based on evaluating the fit
indices: chi-square, Root Mean Square Error of Approximation (RMSEA), Comparative Fix Index (CFI), and Standardized Root Mean Square Residual (SRMR). It is preferable to have a chi-square statistic not be significant; however, chi-square tends to be sensitive to sample size. In addition to considering the chi-square statistic, other indices of model fit provide valuable information (Hu & Bentler, 1999). The models were determined to have adequate fit based on guidelines from Hu and Bentler (1999). RMSEA statistics with less than .08 are fair, but a value of .05 or less is considered good fit. A RMSEA above .10 is considered a poor fit (Hu & Bentler, 1999). CFI with higher values indicates a better fit. A CFI statistic that is equal to or greater than 0.90 is considered acceptable, and equal or greater than 0.95 is considered a good fit (Hu & Bentler, 1999). CFI below .90 is considered a poor fit. The CFI does well at estimating fit even with small samples. SRMR with values below .08 are desirable. CFI, RMSEA, SRMR are the most commonly reported indices in assessing model fit.

For the six items in the social and emotional maladjustment scale (i.e., Swearer, 2001), a one-factor solution was evaluated. When assessing the initial model for one factor in Mplus, the model fit indices did not meet thresholds for adequate fit. Therefore, the model was modified by allowing two pairs of items to correlate and led to improved and adequate fit. The following items were allowed to correlate: item one with item six, and item two with item four (see Appendix F for the items). This model fit the data well ($\chi^2 = 9.62$, $df = 6$, $p = .21$, $RMSEA = .06$, $CFI = .99$, $SRMR = .02$). Confirming one factor in this scale is consistent with Werth and colleagues (2015) who found a one-component solution.

For the eight items in the teacher support scale (i.e., Konold et al., 2014), a one-factor solution was evaluated. When assessing the initial model for one factor in Mplus, the model fit indices did not meet thresholds for adequate fit. Therefore, the model was modified by allowing
three pairs of items to correlate and led to improved and adequate fit. The following items were
allowed to correlate: item one with item two, item three with item four, and item five with item
six (see Appendix H for the items). This model fit the data well ($\chi^2 = 32.01$, $df = 17$, $p < .05$,
$RMSEA = .07$, $CFI = .97$, $SRMR = .04$). Confirming one factor in this scale is consistent with the
findings from Konold and colleagues (2014).

For the six items in the student engagement scale (i.e., Konold et al., 2014), a two-factor
solution was evaluated. When assessing the initial model in Mplus, the model fit indices met the
threshold for adequate fit ($\chi^2 = 9.05$, $df = 8$, $p = .34$, $RMSEA = .03$, $CFI = .99$, $SRMR = .03$). The
finding of two distinct factors is consistent with a previous investigation that examined the
construct evidence of validity for middle school students (Konold et al., 2014).

**Research Question 1: Bullying Victimization and Student Engagement**

The aim of the first research question was to determine if students’ perceptions of
bullying victimization were negatively associated with their levels of affective and cognitive
student engagement. Using a path model with the variables assessed as observed variables,
pathways were specified between verbal/relational victimization, physical victimization, and
each of the covariates (i.e., grade, gender, race) predicting affective and cognitive engagement.
Verbal/relational victimization was negatively associated with affective engagement; $\beta = -.23$, $p$
< .01. Physical victimization was negatively associated with affective engagement; $\beta = -.21$, $p <$
.05. The covariates grade, gender, and race/ethnicity evidenced associations with affective
engagement. Grade level evidenced a unique association with affective engagement; $\beta = -.17$, $p <$
.05. Students in higher grade levels were more likely to report lower affective engagement
compared with students in lower grade levels. Gender evidenced a unique association with
affective engagement; $\beta = -.29$, $p < .05$. Male youth were more likely to report lower affective
engagement compared with female youth. Race/ethnicity was associated with affective engagement; $\beta = -.42, p < .01$. Minority youth (i.e., Non-White) were more likely to report higher affective engagement compared with White youth. Verbal/relational victimization ($\beta = .13, p = .16$) and physical victimization ($\beta = -.10, p = .31$) had no significant relationship with cognitive engagement. None of the covariates were associated with cognitive engagement. The results partially supported the hypotheses that verbal/relational and physical victimization were associated with poorer affective engagement, but both types of victimization were not related with cognitive engagement.

**Research Question 2: Teacher Support as a Potential Moderator**

The aim of this research question was to investigate if teacher social support moderates the pathways (i.e., between the relationship of verbal/relational and physical victimization with affective and cognitive engagement) from research question one, using path analysis. It was hypothesized that, as students perceive higher levels of teacher support, the association between bullying victimization and student engagement weakens. First, pathways were specified between teacher support, verbal/relational victimization, physical victimization, and each of the covariates (i.e., grade, gender, race) predicting affective and cognitive engagement (see Figure 4). Consistent with findings from research question 1, verbal/relational victimization and physical victimization evidenced associations with affective engagement in the same directions. Teacher social support, the new variable added into the model, was positively related to affective engagement; $\beta = .39, p < .001$, and cognitive engagement; $\beta = .34, p < .001$. Verbal/relational and physical victimization continued to have no significant relationship with cognitive engagement, ($\beta = .15, p = .09$), ($\beta = -.08, p = .36$), respectively. The covariates grade and race/ethnicity evidenced associations with affective engagement in the same directions, and
gender was no longer associated with affective engagement. None of the covariates were significantly associated with cognitive engagement.

In the next step to test moderation in path analysis, interaction terms of the moderator and the variable upon which the moderating variable has an effect were created. In this question, the moderator is teacher support and the variable upon which the moderating variable has an effect is verbal/relational and physical victimization. To evaluate the moderation model, moderation in Mplus was examined using observed variables. In order to reduce multicollinearity and to adequately interpret regression coefficients, the continuous variables were centered. Two interaction terms were created: verbal/relational victimization * teacher support and physical victimization * teacher support (see Figure 5).

The interaction between verbal/relational victimization and teacher support did not significantly predict affective engagement ($\beta = -.06$, $p = .47$) and the interaction between physical victimization and teacher support did significantly predict affective engagement ($\beta = -.17$, $p < .05$). The results provided partial support for the hypothesis that teacher support would moderate the relationship between bullying victimization and affective engagement. Teacher support ($\beta = .40$, $p < .001$), verbal/relational victimization ($\beta = -.22$, $p < .01$), and physical victimization ($\beta = -.17$, $p < .05$) had associations with affective engagement. Of the three covariates, race/ethnicity was related to affective engagement ($\beta = -.33$, $p < .05$), and grade and gender had no associations with affective engagement.

The interaction between verbal/relational victimization and teacher support did significantly predict cognitive engagement ($\beta = -.18$, $p < .05$) and the interaction between physical victimization and teacher support did not significantly predict cognitive engagement ($\beta = .09$, $p = .33$). The results partially supported the hypothesis that teacher support would
moderate the relationship between bullying victimization with cognitive engagement. Teacher support had an association with cognitive engagement ($\beta = .33, p < .001$), however, physical victimization ($\beta = -.07, p = .41$) and verbal/relational victimization ($\beta = .14, p = .12$) had no associations with cognitive engagement. None of the three covariates (i.e., race/ethnicity, grade, and gender) had associations with cognitive engagement.

The two significant interactions were probed as recommended by Aiken and West (1991). Additional testing of the significant interactions consisted of testing the significance of simple slopes of regression lines. See Figures 6 and 7 for graphical representations of the significant interactions. Means were plotted at high, medium, and low levels (i.e., one standard deviation above the mean, the mean, one standard deviation below the mean) for victimization and social support levels. A computational tool for probing interaction effects, and for establishing simple intercepts and simple slopes was used (Preacher, Curran, & Bauer, 2006).

For the interaction between physical victimization and teacher support significantly predicting affective engagement (see Figure 6), the simple slopes for high and medium levels of support were significant, and the simple slope for low levels of support was non-significant: high, $t(146) = -3.17, p < .01$; medium, $t(146) = -2.23, p < .05$. For students who perceived high levels of teacher support and high physical victimization scores had lower affective engagement. The same pattern emerged for students who perceived medium levels of teacher support and high physical victimization scores.

For the interaction between verbal/relational victimization and teacher support significantly predicting cognitive engagement (see Figure 7), the simple slope for low levels of support were significant and the simple slopes for high and medium levels of support were non-
significant. low, \( t(146) = 2.72, p < .01 \). For students who perceived low levels of teacher support and high physical victimization scores had higher cognitive engagement.

**Research Question 3: Social and Emotional Maladjustment and Student Engagement**

In the third research question, the goal was to determine if students’ perceptions of social and emotional maladjustment from bullying victimization experiences were negatively associated with their levels of affective and cognitive student engagement. Using a path model with the variables assessed as observed variables, pathways were specified between social and emotional maladjustment as one observed variable, and each of the covariates (i.e., grade, gender, race) predicting affective and cognitive engagement. Maladjustment was negatively associated with affective engagement; \( \beta = -.40, p < .001 \). Similar to the findings in research question one, all of the covariates continued to evidence associations with affective engagement in the same directions. Students in higher grades were more likely to report lower affective engagement compared with students in lower grades. Male youth were more likely to report lower affective engagement compared with female youth. Minority youth (i.e., Non-White) were more likely to report higher affective engagement compared to White youth. Maladjustment (\( \beta = -.01, p = .96 \)) had no significant relationship with cognitive engagement. All but one of the covariates were associated with cognitive engagement. Male youth were more likely to report lower cognitive engagement compared with female youth. The results partially supported the hypotheses that maladjustment would be associated with poorer student engagement.

**Research Question 4: Social and Emotional Maladjustment as a Potential Mediator**

The aim of the fourth research question was to examine if social and emotional maladjustment would mediate the pathways from victimization (i.e., verbal/relational and physical victimization) to student engagement (i.e., affective and cognitive engagement). It was
hypothesized that victimization would be positively related to maladjustment, and maladjustment would be negatively related to student engagement. Maladjustment would fully explain the associations between victimization and student engagement. The mediation model was tested using several steps (Mackinnon, 2008). First, the initial variables (i.e., verbal/relational and physical victimization) were specified as predictors of the outcome variables (i.e., affective and cognitive engagement). Second, paths were specified from the initial variables to the mediator. Third, the mediator was specified to influence the outcome variables while controlling for the initial variables. For full mediation, the effect of the initial variables on outcome variables should be nonsignificant given that the mediator is being accounted for in the model. The third step was conducted to establish complete mediation.

The four mediation pathways were examined in the same analysis model. In addition, percentile bootstrapping procedures (using 1000 bootstrapped samples) were conducted to investigate the hypothesis that maladjustment mediates the relationship between victimization and student engagement. Bootstrapping was used given that percentile bootstrap has nominal Type I error rates compared to other methods (Fritz, Taylor, & MacKinnon, 2012; Williams & MacKinnon, 2008). The computation of observed power for the indirect effect was not computed given that the current analysis model (i.e., covariates are included, and multiple mediational relations were examined) deviates from the assumptions underlying power analysis tools.

In the first step, the pathways were specified between verbal/relational victimization, physical victimization, and the covariates (i.e., grade, gender, race) predicting affective and cognitive engagement. These findings are the same as the findings presented in research question 1. In the second step (see Figure 8), additional pathways were added into the model from the first step, in which verbal/relational victimization, physical victimization, and the covariates were
correlated with maladjustment (mediator). It was found that verbal/relational victimization ($\beta = .72, p < .001$) and physical victimization ($\beta = .13, p < .01$) were both associated with increased maladjustment. The covariates gender ($\beta = -.19, p < .001$) and grade ($\beta = -.22, p < .05$) evidenced associations with maladjustment. Female youth were more likely to report higher maladjustment compared with male youth. Students in higher grades were more likely to report lower maladjustment compared with students in lower grades. In the third step, the mediator is presented to influence the outcome variables and is presented below (see Figure 9).

In the first mediation pathway (verbal/relational victimization to maladjustment to affective engagement), results did not support a significant indirect effect of $-.18, p = .13$, with 95% confidence interval [-.36, -.02]. The results revealed a significant association between verbal/relational victimization and maladjustment, such that greater verbal/relational victimization was associated with poorer youth evaluations of maladjustment, $\beta = .74, p < .001$. Maladjustment, in turn, was not associated with affective engagement, $\beta = -.24, p = .13$. The direct path between verbal/relational victimization and affective engagement was no longer different from zero, $\beta = .00, p = .99$, once maladjustment was included in the model. Prior to adding the mediator in this analysis, there was a significant direct effect between the predictor and outcome. After adding the mediator, the direct effect was lost, which may suggest that mediation was occurring; however, the indirect effect was likely non-significant because of relatively limited power. The total effect was significant, $\beta = -.18, p < .05$.

In the next mediation pathway (physical victimization to maladjustment to affective engagement), results did not support a significant indirect effect of $-.03, p = .34$, with 95% confidence interval [-.11, .00]. There was no significant association between physical victimization and maladjustment, $\beta = .12, p = .10$. Maladjustment, in turn, was not associated
with affective engagement, $\beta = -.24, p = .13$. The direct path between physical victimization and affective engagement was different from zero, $\beta = -.22, p < .05$, despite maladjustment being included in the model. Prior to adding the mediator in this analysis, there was a significant direct effect between the predictor and outcome. After adding the mediator, the direct effect remained significant which may suggest that partial mediation was occurring; however, the indirect effect may have been non-significant because of relatively limited power. The total effect was significant, $\beta = -.25, p < .01$.

In the third mediation pathway (verbal/relational victimization to maladjustment to cognitive engagement), results did not support a significant indirect effect of -.12, $p = .24$, with 95% confidence interval [-.31, .03]. There was a significant association between verbal/relational victimization and maladjustment, such that greater verbal/relational victimization was associated with poorer youth evaluations of maladjustment, $\beta = .74, p < .001$. Maladjustment, in turn, was not associated with cognitive engagement, $\beta = -.16, p = .24$. The direct path between verbal/relational victimization and cognitive engagement was not different from zero, $\beta = -.26, p = .06$, once maladjustment was included in the model. Prior to adding the mediator in this analysis, there was no significant direct effect between the predictor and outcome. The total effect was not significant, $\beta = .14, p = .13$.

In the last mediation pathway (physical victimization to maladjustment to cognitive engagement), results did not support a significant indirect effect of -.02, $p = .39$, with 95% confidence interval [-.08, .00]. There was no significant association between physical victimization and maladjustment, $\beta = .12, p = .10$. Maladjustment, in turn, was not associated with cognitive engagement, $\beta = -.16, p = .24$. The direct path between physical victimization and cognitive engagement was not different from zero, $\beta = -.07, p = .51$, once maladjustment was
included in the model. Prior to adding the mediator in this analysis, there was no significant direct effect between the predictor and outcome. The total effect was not significant, $\beta = -.08$, $p = .38$.

Together, the results from research question 4, did not support the hypotheses that social and emotional maladjustment would mediate the relationships between two types of victimization and two types of student engagement.

**Research Question 5: Teacher Support as a Potential Moderator within a Mediation Model**

The goal in research question five was to assess for moderated mediation by building upon the model evaluated in research question four. Despite the results from research question four generally being non-significant, the goal of moderated mediation was still evaluated. One possible reason that the mediation results from research question four were null is because moderation could have been occurring. In some cases, moderation effects cancel out each other leading to a null main effect. The indirect effects could have been positive for those with low teacher support and negative for those with high teacher support. Thus, the goal was to specify another path analysis model in which teacher support would be evaluated as the moderator, within the mediation chain, relationships between predictor variables (two types of bullying victimization) and the mediator variable (social and emotional maladjustment). In order to reduce multicollinearity and to adequately interpret regression coefficients, the continuous variables were centered. It is hypothesized that, as students perceive higher levels of teacher support, the association between bullying victimization (predictor) and maladjustment (mediator) weakens.

First, additional pathways were specified in the path analysis model from the mediation models. Teacher support was added to the model and specified to predict maladjustment.
(mediator) and affective and cognitive engagement (outcome variables). The findings remained consistent with the findings from research question four. The indirect effects for all four mediation pathways remained non-significant. Physical victimization continued to have a non-significant relationship with maladjustment, and verbal/relational continued to have a significant positive relationship with maladjustment ($\beta = .74, p < .001$). The relationships between the mediator and the outcome variables, affective and cognitive engagement, remained non-significant. Teacher social support, the new variable added into the model, evidenced no association to maladjustment ($\beta = -.03, p = .49$), and significant positive associations to affective engagement ($\beta = .44, p < .001$) and to cognitive engagement ($\beta = .31, p < .001$).

In the next step, interaction terms were created. To evaluate the moderation model shown in Figure 3, moderated mediation in Mplus was examined using observed variables. The moderated mediation models were analyzed in separate models, one for verbal/relational victimization and a separate one for physical victimization. Two interaction terms were created: verbal/relational victimization * teacher support and physical victimization * teacher support. The interaction between verbal/relational victimization and teacher support did not significantly predict maladjustment ($\beta = .07, p = .24$) and the results failed to support the hypothesis that teacher support would moderate the relationship between verbal/relational victimization and maladjustment (see Figure 10). Consistent with the findings from the previous step, verbal/relational victimization continued to have a significant positive relationship with maladjustment, and teacher support had no significant relationship with maladjustment. The interaction between physical victimization and teacher support did not significantly predict maladjustment ($\beta = .01, p = .61$) and the results failed to support the hypothesis that teacher support would moderate the relationship between physical victimization and maladjustment (see
Figure 11). Consistent with findings from previous step, physical victimization continued to have a significant positive relationship with maladjustment, and teacher support had no significant relationship with maladjustment.

Together, the results from research question five, did not support the hypotheses that teacher support would moderate the relationships between the pathways of two types of bullying victimization and social and emotional maladjustment within the mediation model evaluated in research question four.
CHAPERT V

DISCUSSION

The purpose of the present investigation was to evaluate the relationships among two types of bullying victimization (i.e., verbal/relational and physical), social and emotional maladjustment, teacher social support as a potential protective factor for bullying victimization, and two types of student engagement (i.e., affective and cognitive engagement). The following relationships were evaluated with a sample of 171 middle school aged-students, between the ages of 11 and 14 from an independent school in a mid-sized Western city. This study sought to address the limitations and gaps of previous research studies by examining different forms of bullying victimization, assessing the distress from bullying victimization experiences, including a moderator such as teacher support that could be a protective factor, and assessing two different types of student engagement as outcome variables.

Several research questions were examined. First, are students’ perceptions of bullying victimization associated with their levels of student engagement? Second, do students’ perceptions of teacher support moderate the associations between bullying victimization and student engagement? Third, for students who report bullying victimization, are their perceptions of social and emotional maladjustment associated with their levels of student engagement? Fourth, does social and emotional maladjustment mediate the association between verbal/relational and physical victimization and student engagement? Fifth, when extending the model in research question four, do the mediation effects differ across levels of a moderator variable—teacher support (i.e., a moderated mediation model)?

Overall, the findings indicate that bullying victimization and maladjustment can be risk factors for affective engagement. Teacher support can be a positive factor for overall student
engagement and there was limited evidence found that teacher support acts as a protective factor between bullying victimization and student engagement. Several findings were noteworthy. Both types of bullying victimization were related to increased social and emotional maladjustment. Verbal/relational victimization and social and emotional maladjustment tended to be negatively related to affective engagement. Both types of bullying victimization and social and emotional maladjustment related to bullying tended to be unrelated to cognitive engagement. Teacher social support had strong associations with both types of student engagement, and support also moderated the relationships between bullying victimization and student engagement in two of the four interactions examined, with only one of the two significant interactions being consistent with predictions. No evidence was found for mediation of social and emotional maladjustment explaining the relationships between bullying victimization and student engagement. Further, no evidence was found that teacher support moderated the pathways in the mediation model between bullying victimization and maladjustment.

These results extend the broader literature on bullying victimization and its associations with school-related variables and has implications for specific bullying prevention and intervention strategies in schools. The following paragraphs in this chapter discuss the findings from this study (i.e., the results of each hypothesis). Additionally, study limitations, directions for future research, and clinical implications are discussed.

**Research Question 1: Bullying Victimization and Student Engagement**

The purpose of the first research question was to assess whether two types of bullying victimization would be related to two types of student engagement. Hypothesis 1 predicted that verbal/relational and physical bullying victimization would have negative associations with affective and cognitive engagement. This hypothesis was based on research suggesting that
bullying victimization and school climates of prevalent teasing and bullying may be a risk factor for lower student engagement (Cunningham, 2007; Konold & Cornell, 2015; Konold et al., 2014; Popp & Peguero, 2012; Ripski & Gregory, 2009).

The hypothesis was partially supported given that both verbal/relational and physical victimization were negatively associated with affective engagement. Students’ affective engagement of liking their school, being proud to be a student at their school, and feeling like they belong at their school were negatively influenced if they experienced elevated levels of verbal/relational or physical victimization. However, both types of victimization were not associated with cognitive engagement. It is possible that the non-significant findings of cognitive engagement may have been due to the largely homogenous responses on this scale; that is, most participants indicated that they had high levels of cognitive engagement, which may have created a ceiling effect. The data on cognitive engagement were not normally distributed. Indeed, the mean score of cognitive engagement was 10.53, SD = 1.42 (range six to 12; 12 being the highest rated level of cognitive engagement). This restricted range (i.e., limited variability in scores) may reflect that most students who participated from this independent school finish their homework, want to learn as much as they can in school, and getting good grades is important to them. Ultimately, this restricted range may have reduced the likelihood that any variable would be related to cognitive engagement.

These findings are generally consistent with previous studies that found bullying victimization (i.e., as one total construct) is a risk factor for student related outcomes including reduced behavioral engagement (Ripski & Gregory, 2009) and attachment or emotional bonding towards school and teachers (defined similarly to affective engagement in this study; Cunningham, 2007; Popp & Peguero, 2012). The finding that both types of victimization are
related to affective engagement is consistent with previous research that has found that victims of bullying were six times more likely to avoid school than non-victims (Bellmore et al., 2013; Vidourek et al., 2016). It is possible that students with reduced affective engagement may be more inclined to miss school if they dislike their school or feel like they do not belong. In addition, the findings from this study are similar to findings that indicate a negative school climate of prevalent teasing and bullying (PTB; PTB is defined similarly to bullying victimization in this study) is negatively associated with affective engagement (Konold & Cornell, 2015; Konold et al., 2014). However, the current findings of cognitive engagement being unrelated to bullying victimization is inconsistent with past research suggesting that cognitive engagement tends to be negatively influenced by PTB (Konold & Cornell, 2015; Konold et al., 2014). However, it should be noted that in the Cunningham (2007) study, victims of bullying reported no negative effects on their commitment towards school, which involves wanting to perform well academically, work hard, and follow school rules (defined similarly to cognitive engagement in this study). It is possible that cognitive engagement may be less affected by victimization experiences than affective engagement. A number of differences in the current study compared to previous research may account for these results. The characteristics of this sample from a private school may be different from students who attend public schools. Lastly, none of the previous studies examined two types of bullying victimization and two types of engagement as they relate to each other.

**Research Question 2: Teacher Support as a Potential Moderator**

The purpose of the second research question was to assess if students’ perceptions of teacher support moderates the associations between two types of bullying victimization and two types of student engagement. Hypothesis 2 predicted that teacher support would moderate all
pathways between verbal/relational and physical victimization and affective and cognitive engagement. It was hypothesized that, as students perceive higher levels of teacher support, the associations between bullying victimization and student engagement would weaken.

This hypothesis was based on the findings from several research studies that examined the relationships between teacher social support and bullying victimization; and between teacher social support and student engagement. Students who perceive high levels of teacher support were associated with lower levels of prevalent teasing and bullying (PTB), other general forms of victimization including bullying victimization (Cornell et al., 2015; Gregory et al., 2010; Konold & Cornell, 2015; Konold et al., 2014), and internalizing problems (Tanigawa et al., 2011). In addition, students who feel respected and supported by their teachers also tend to report higher levels of engagement (Fredricks et al., 2004), and in some cases, teacher support has been found to be the strongest form of social support associated with student engagement compared to parent and peer support (Lam et al., 2012; Wang & Eccles, 2012).

The hypothesis was partially supported given that two of the four interactions were significant. Of the two significant interactions, only one of the interactions was consistent with predictions, while the other one was contrary to predictions. In general, there was limited evidence of teacher support having a buffering effect on the engagement of victimized youth. The interaction of verbal/relational victimization and teacher support significantly predicted cognitive engagement, but not affective engagement. Victims of verbal/relational bullying were less likely to report low cognitive engagement when they perceived low levels of teacher support. It was predicted that this finding, verbal/relational victimization and cognitive engagement being related, would have occurred for students when they perceived high levels of teacher support, not low levels of teacher support. It may be that for students in this sample who
perceived low levels of teacher support and high levels of verbal/relational victimization, that they may be receiving other forms of support (e.g., parent or peer support) as a way of increasing their cognitive engagement. Moreover, an interesting finding was that higher and lower levels of verbal/relational victimization were not associated with poorer cognitive engagement for youth who reported higher levels of teacher support, suggesting teacher support may be having a buffering effect. It is possible that elevated levels of teacher support for the more common forms of victimization (i.e., verbal/relational), regardless of its frequency (low or high), help youth to maintain positive attitudes about valuing homework and grades and learning in school.

The interaction of physical victimization and teacher support significantly predicted affective engagement, but not cognitive engagement. Contrary to predictions, teacher support was not found to be a protective factor for the influence of physical victimization on affective engagement. Physical victimization was associated with poorer affective engagement only for those youth who reported higher levels of teacher support. It was hypothesized that for youth who reported higher levels of teacher support that physical victimization would be associated with increased affective engagement, not poorer affective engagement. It may be that for youth who experience more observable and less common forms of victimization (i.e., physical) that the act of being physically bullied affects them to feel less connected to school despite these students perceiving high levels of teacher support.

It should be noted that these results provide limited evidence that teacher support has a stress-buffering effect given that it did not moderate all types of bullying victimization with student outcomes, and only one of the two significant interactions was in the predicted direction. Another relevant finding from this research question was that teacher support was strongly
related to increased affective and cognitive engagement. As students feel supported by their teachers, they were more likely to have increased engagement in school.

In past research, there have been mixed findings of teacher support moderating the relationships between bullying victimization and student outcomes (Davidson & Demaray, 2007; Tanigawa et al., 2011). Teacher social support for males (but not for females) was found to be a protective factor between bullying victimization experiences and internalizing distress from bullying (Davidson & Demaray, 2007); however, in another study no evidence for the stress-buffering influence of teacher social support was found for victimized males or females on depressive symptoms (Tanigawa et al., 2011). This current study generally aligns with past research given that in this study there were both significant and non-significant findings of teacher support having a stress-buffering influence for victimized youth on their engagement.

Similar to previous studies, middle school students were examined (Davidson & Demaray, 2007; Tanigawa et al., 2011). There were a number of differences in the current study compared to previous research. The sample sizes of past studies were larger and larger sample sizes can help with power in the analyses and possibly increase the likelihood of variability in scores. In past studies, teacher support was evaluated as a moderator of the relationship between bullying victimization and distress from bullying or depression symptoms. However, no past researchers examined if teacher support moderates bullying victimization with student engagement as an outcome variable. In addition, there appears to be advantages of assessing the constructs (bullying victimization and student engagement) as multi-dimensional rather than as one total construct given that some of the findings were significant and non-significant. The current findings in the context of past studies indicate the need to further understand the possible influence that teacher support has for victimized youth and their engagement in school.
Research Question 3: Social and Emotional Maladjustment and Student Engagement

The purpose of the third research question was to assess if social and emotional maladjustment from bullying would be related to two types of student engagement. Hypothesis 3 predicted that social and emotional maladjustment would have negative associations with affective and cognitive engagement. In other words, it was hypothesized that the social and emotional maladjustment experience of victimized students may interfere with their engagement in school. This hypothesis was based on two lines of research: bullying victimization is consistently associated with maladjustment indices in social and emotional domains; and youth who experience mental health problems (e.g., similar, but not the same construct as maladjustment from victimization) tend to have poor educational attainment or engagement (Frojd et al., 2008; Loukas et al., 2012; McLeod & Fettes, 2007; Totura et al, 2014).

The hypothesis was partially supported given that maladjustment was negatively associated with affective engagement, but not with cognitive engagement. Students who reported maladjustment from victimization tended to be negatively influenced in their liking of school, being proud to be a student at their school, and feeling like they belong at their school. These findings are similar to those from research question one, in that the predictors, verbal/relational and physical victimization were related to affective engagement, but not cognitive engagement. The explanation provided in research question one regarding the non-significant findings of cognitive engagement also applies here. Most participants indicated that they had high levels of cognitive engagement ($M = 10.53$, $SD = 1.42$, range six to 12), which may have created a ceiling effect and reduced the likelihood that maladjustment would be related to cognitive engagement.

It is important to view these findings in the context of past research. Although no previous researchers have specifically examined the relationship between distress that was
specific to bullying victimization and student engagement, researchers have assessed youths’ overall distress or mental health problems with educational attainment (Frojd et al., 2008; McLeod & Fettes, 2007). The present findings are consistent with past studies that mental health problems tend to be associated with reduced academic outcomes such as high school completion, grade-point average in high school, perceived loading of schoolwork and perceived difficulties in different areas of schoolwork, and college entry (Frojd et al., 2008; McLeod & Fettes, 2007). In addition, the findings are similar to past studies that found that internalizing and externalizing problems have negative influences on aspects of student engagement including school self-efficacy, academic goal orientation, learning and class focal abilities, and school connectedness (i.e., a construct similar to affective engagement; Loukas et al., 2012; Totura et al, 2014). These past studies indicate that psychological distress negatively influences students’ academic performance and attitudes about school and the current findings also support that maladjustment from victimization negatively influences affective engagement, but not cognitive engagement. The finding that maladjustment was not linked with cognitive engagement may be more related to the unique sample of an independent private school who all tended to have positive attitudes about finishing their homework, wanting to learn as much as they can in school, and that getting good grades is important. The current study contributes to the existing research in this area and indicates maladjustment from victimization is associated with one factor of student engagement.

**Research Question 4: Social and Emotional Maladjustment as a Potential Mediator**

The purpose of the fourth research question was to assess if social and emotional maladjustment from bullying victimization would act as a mediator between bullying victimization and student engagement. Hypothesis 4 predicted that social and emotional maladjustment would mediate the associations between two types of bullying victimization and
two types of student engagement. Specifically, it was hypothesized that bullying victimization would be positively related to maladjustment, and maladjustment would be negatively related to student engagement.

This hypothesis was based on research suggesting that there may be intraindividual and interpersonal factors that explain the negative relationships between students’ experiences with bullying victimization and school related performance or outcomes (Loukas et al., 2012; Totura et al., 2014). Victimization has been conceptualized to be a significant stressor that may be associated with psychological distress, and subsequently distress could affect a student’s school functioning. Researchers have suggested that there are possible mechanisms (i.e., psychological functioning and aspects of engagement) that explain the direct relationships between students’ experiences with bullying victimization and academic achievement in school (Totura et al., 2014). Other researchers have reported that bullying victimization mediates depressive symptoms and school connectedness (i.e., a construct similar to affective engagement; Loukas et al., 2012).

The hypothesis for this research question was not supported. The indirect effects for each of the four mediation pathways (i.e., verbal/relational victimization to maladjustment to affective engagement, physical victimization to maladjustment to affective engagement, verbal/relational victimization to maladjustment to cognitive engagement, and physical victimization to maladjustment to cognitive engagement) were all non-significant. In general, maladjustment tended to be unrelated to the outcome variables of student engagement, and the relationships between bullying victimization with maladjustment were unrelated with the exception of verbal/relational victimization and maladjustment. The small sample size in this study may have resulted in relatively limited power for detecting significant indirect effects. It was noteworthy
that the total effect was found to be significant for two of the mediation pathways. The results from the previous research questions indicated a general pattern that affective engagement, not cognitive engagement, tended to be related to the main study variables. This pattern continued. The two mediation pathways with affective engagement as the outcome variable, not cognitive engagement, had total effects that were significant.

The current findings do not align with results of past studies. In past studies, researchers have examined whether there is an underlying social-emotional process that occurs for victimized youth and their school related outcomes. In general, researchers have found that bullying victimization was a significant stressor, and that overall distress had an important mediating role in school related problems (Loukas et al., 2012; Totura et al., 2014). In the Totura et al. (2014) study, researchers examined a mediational model in which pathways were specified from victimization to psychological distress (i.e., symptoms of depression, anxiety, anger, and general moodiness) to aspects of student engagement to academic achievement. Overall, they found psychological distress and aspects of student engagement were critical to youth academic success in school, particularly for those experiencing victimization (Totura et al., 2014).

In the Loukas et al. (2012) study, researchers examined a mediational model in which pathways were specified from psychological distress (i.e., depressive symptoms and conduct problems) to bullying victimization (i.e., two types, relational and overt) to school connectedness one year later. Overall, they found that youth who reported elevated levels of depressive symptoms experience reduced levels of school connectedness one year later, in part because they experienced relational victimization. Although Loukas and colleagues evaluated victimization as a mediator, they did not assess if maladjustment from victimization could explain the link
between victimization and school functioning. Thus, maladjustment from victimization was evaluated as a mediator.

A number of differences in the current study compared to previous research may account for these results. In the past studies (Loukas et al., 2012; Totura et al., 2014), the researchers had larger sample sizes, which may have helped for detecting significant relationships and indirect effects in their mediation analyses. A significant difference in this study compared to past studies, was that in this study, maladjustment of bullying victimization experiences was assessed, rather than overall mental health problems. General mental health problems can be influenced by a variety of factors in a child’s life that may or may not have anything to do with bullying victimization. In the assessment of engagement, past studies assessed constructs similar to affective engagement, and there tended to be no studies that examined constructs similar to cognitive engagement.

**Research Question 5: Teacher Support as a Potential Moderator within a Mediation Model**

The purpose of the fifth research question was to assess if students’ perceptions of teacher support moderated the associations between two types of bullying victimization and maladjustment within the mediation model evaluated in research question four. Hypothesis 5 predicted that within the mediation model, the moderator would influence the pathway of the predictor variables to the mediator variable. Specifically, it was hypothesized that as students perceive higher levels of teacher support, the association between two types of bullying victimization (predictors) and maladjustment (mediator) would weaken. This hypothesis was based on research suggesting victimized youth are at increased risk for a host of problems (Cook et al., 2010; Kljakovic & Hunt 2016), there are possible mechanisms between students’ experiences with bullying victimization and engagement in school (Loukas et al., 2012; Totura et
al., 2014), and teacher support may be a protective role for victimized youth (Davidson & Demaray, 2007; Tanigawa et al., 2011). As stated earlier, one possible reason that the mediation results from research question four were null was because moderation could have been occurring and canceled out each other leading to a null main effect. The indirect effects could have been positive for those with low teacher support and negative for those with high teacher support. Thus, it was hypothesized that teacher support could have been moderating the first link of the mediational chain rather than the second link given that bullying victimization and maladjustment (i.e., the first link) tend to be strongly related.

The hypothesis of teacher support having a positive influence on the relationship between the predictors and the mediator was not supported. Both interaction terms (i.e., verbal/relational victimization * teacher support, and physical victimization * teacher support) were non-significant. In the moderated mediation models, there appears to be more significant relationships among the variables compared to the mediation model from research question four. This is due to the mediation model being more stringent (i.e., more predictors were included in the model) than the moderated mediation models (i.e., two models were analyzed separately for verbal/relational and physical victimization). In the moderated mediation model with verbal/relational victimization as a predictor, there were several noteworthy findings. Verbal/relational victimization was related to increased maladjustment, and maladjustment in turn was related to reduced affective and cognitive engagement. The direct pathway between verbal/relational victimization and cognitive engagement was related, but the pathway between verbal/relational victimization and affective engagement was unrelated. In the moderated mediation model with physical victimization as a predictor, there were also several noteworthy findings. Physical victimization was related to increased maladjustment, maladjustment in turn
was related to reduced cognitive engagement, but maladjustment was unrelated to affective engagement. The direct pathway between physical victimization was related to affective engagement, but the pathway between physical victimization and cognitive engagement was unrelated.

It is possible that teacher support alone was not sufficient in mitigating the relationship between victimization and maladjustment. Other researchers (Davidson & Demaray, 2007; Tanigawa et al., 2011) have examined other forms of social support (e.g., peer, family, combined) that could have served as protective factors for victimized youth. The moderated mediation models assessed in this research question contribute to the research of past studies that have examined the stress-buffering influence of teacher social support among victimized youth (Davidson & Demaray, 2007; Tanigawa et al., 2011).

**Limitations**

Several limitations must be noted. First, the characteristics of this sample limits the generalizability of the findings. The school is located in a mid-sized Western city in the United States and nearly 70% of the sample was Caucasian. This sample of students from an independent school (i.e., private school) may not be representative of typical students in the population who generally attend public education schools. For example, most participants from this independent school are high academic achievers. Nearly the entire sample of students (i.e., 95%) endorsed mostly meeting or mostly exceeding in their academic grades; while, only 5% reported mostly approaching satisfactory grades, and no participant endorsed receiving mostly unsatisfactory grades. Two-thirds of the students are involved in at least one school sports program. In addition, the students at this school tend to be from families with high education and socio-economic backgrounds. The lack of a representative sample limits the generalizability of
the findings to students from public schools, minority students, or students living in other geographic regions in the U.S. The findings are also based on middle school students’ perspectives and may not be generalizable to elementary or high school aged students.

Second, no casual links can be inferred from these results. The pathways examined in the models are correlational and the data were all measured simultaneously (i.e., cross-sectional). With correlational data it is not possible to infer definitive conclusions about directionality, or causal relationships among the variables. In addition, there may exist alternative hypotheses or explanations to the phenomena studied. For example, the Loukas et al. (2012) study examined alternative models and found that bullying victimization mediated the relationship between internalizing problems and a student related outcome, school connectedness.

Third, there were limitations with the assessment of student engagement in this study. Only affective and cognitive engagement were examined, and the behavioral dimension of student engagement was not assessed. The construct of student engagement is multi-dimensional and represents three dimensions. Also, given that most students report doing well academically likely influenced the assessment of cognitive engagement. Most students in this sample had high cognitive engagement ($M = 10.53$) and the range was 6 to 12. The constructs that were associated with cognitive engagement were generally non-significant. In contrast, affective engagement had more variability ($M = 9.74$), and the range was 3 to 12.

Fourth, measuring low frequency behaviors such as bullying victimization affects the variability of victimization scores and thus, the constructs assessed with victimization. National estimates suggest that about one in every five children are bullied during the school year. In this study, about $21\%$ of students reported being bullied this school year, and they endorsed experiencing more verbal/relational victimization than physical victimization. The frequency of
students endorsing physical victimization was generally low ($M = 4.96$; range of scores are between 4 to 15). Given the limited variability of physical victimization, the constructs that were associated with physical victimization were generally non-significant. In contrast, verbal/relational victimization had slightly more variability ($M = 9.74$; range 6 to 30).

Fifth, students who participated in the current study may have been prone to a selection bias. It was required that parents provide consent for the students who participated. Thus, the parents who consented may have been more likely to be parents who valued educational research and were interested in the subject of emotional and behavioral assessment of students. It is likely that the population of students whose parents were willing to participate may be different from parents who did not have their children participate.

Sixth, the measures used in this investigation relied solely on student reports resulting in a mono-method bias. It would desirable in future studies for researchers to supplement the data collected with teacher or parent perceptions of the constructs assessed in the study. There may be concern with social desirability in self-report measurement, and students might underreport their experience of bullying victimization, maladjustment, or engagement.

**Future Directions**

Future investigators might consider sampling students who are more representative of the population in a variety of schools. A mix of students from private and public schools would advance this line of research. Future researchers should collect data from a more ethnically diverse population. Furthermore, researchers can collect data from more schools across geographic areas of the U.S. and assess students across middle and high school grades.

Future research in this area may benefit from assessing the main variables across several time points as in a longitudinal study (e.g., within a school year or across several school years).
One advantage longitudinal data have over cross-sectional data is that longitudinal data may provide more evidence of causality in mediation analyses. In addition, longitudinal studies offer other benefits such as following changes over time and identifying developmental trends.

It may be useful for future researchers to examine how teacher support and bullying victimization are related to behavioral engagement such as participation in class, attending school, and following school rules. The assessment of affective and cognitive engagement provides insight into feelings and attitudes, but behavioral engagement may provide more information on students’ actions within school. It is possible future researchers may benefit from supplementing from another cognitive engagement scale to capture more variability or obtain a sample of students who can report more variability in their cognitive engagement.

Future researchers may examine other forms of victimization related to the constructs of interest including cyberbullying. Future researchers may benefit from continuing to assess victimization as separate constructs given that physical victimization appears less common than verbal or relational victimization. Developing additional items on the VPBS and evaluating the VPBS in factor analytic/measurement studies may make it possible to assess the verbal/relational scale as two separate constructs (i.e., verbal and relational). In addition, it may be interesting to assess the experiences of other roles within the bullying dynamic (i.e., bystanders or bully perpetrators) with maladjustment, engagement, and teacher support.

More research on other forms of support such as from parents, friends, peers, or community members can be assessed as protective factors within the bullying dynamic and student engagement. In addition, future research that includes the reports of other individuals such as teachers or parents may be used to supplement the perspective of students. More research is needed to clarify the role that support has for youth who are being bullied. Past research has
suggested that support from teachers may be beneficial, but identifying specific forms and types of support can help inform best practices in bullying prevention and intervention.

**Implications**

The results from the current study have implications for bullying prevention and intervention. The first step towards addressing bullying is assessing it in schools (Swearer, Espelage, & Napolitano, 2009). The assessment of bullying provides data on issues related to bullying (e.g., the prevalence and frequency of bullying) that impacts students. Given the adequate psychometric qualities of the measurements used in this study (i.e., VPBS, SeMS found within the BYS-S), school professionals interested in identifying students being bullied and having maladjustment problems from bullying victimization may consider conducting a school-wide assessment. This type of practice is a structured approach for assessing all students in a school with measures to identify students who could benefit from additional support (Kamphaus, Reynolds, & Dever, 2014). The BYS-S is included in a CDC compendium of student-rated assessments for assessing bullying victimization, perpetration, and bystander experiences (Hamburger et al., 2011). In the absence of bullying assessment, school professionals may be limited in addressing the issues related to bullying in their schools and it is possible that students who are involved in bullying may go unidentified.

School personnel, parents, and students may need to be more aware that verbal/relational victimization is more common than physical victimization. Verbal/relational victimization was reported to be occurring at a higher frequency compared to physical victimization, which rarely occurred in this sample. The findings also indicate that as students experienced increased verbal/relational and physical victimization, students tended to endorse increased social and emotional maladjustment. It is possible that there exists a negative cycle between victimization
and maladjustment. The experiences of elevated maladjustment may put students at-risk for becoming targets for increased victimization and further contribute to the development and maintenance of maladjustment. It is possible that reducing the maladjustment of victimization would be important for possibly decreasing the frequency of victimization, and vice-versa. Together, these data suggest that educators should become aware of those who are bullied at school and assess for their adjustment and coping with the bullying. Interviews, observations, and administering diagnostic questionnaires could all be helpful for assessing the extent of the bullying and the maladjustment. In the cases where psychological treatment would be helpful for a student, several treatments may be offered within schools (e.g., social skill groups, school counselor, depression/anxiety groups) or students can be seen by outside providers for medication consultation or individual based-therapy using evidence-based therapeutic approaches (e.g., Cognitive Behavior Therapy). School professionals need to consider meeting the mental health needs of students being bullied. Results from this study indicate the importance of involving all school personnel in bullying prevention and intervention efforts.

The associations between verbal/relational, physical victimization, social and emotional maladjustment with affective engagement suggest it is important for school professionals to know that students who have unfavorable views (i.e., dislike school and do not feel belonged at school) may also be experiencing elevated levels of victimization or maladjustment. In addition, the moderation findings suggested limited evidence of teacher support acting as a protective factor for victimized youth on their engagement in school. One of the four interactions suggested teacher support may affect the negative relationships between verbal/relational victimization and cognitive engagement. Moreover, regardless of victimization experiences, teacher support appears to generally be a positive factor for students in school. When accounting for
victimization in the models, teacher support was strongly linked with increased affective and
cognitive engagement. Therefore, school professionals may consider using interventions that
target promoting teacher support in assisting students at risk for low affective and cognitive
engagement in school. There is one evidence-based intervention for promoting student
engagement called Check & Connect, via increasing social support from teachers and adults
(Lehr et al., 2004). Generally, this intervention has been designed for students at risk for low
engagement. In this intervention, teachers and adults have structured and consistent check-ins
with students on a daily/weekly basis. During the check-ins, the student and the school teacher
can discuss with students about their attitudes and feelings about being at school. The
intervention emphasizes relationship building between a student and a school teacher. Students
who participated had higher behavioral engagement and reduced poor behavioral outcomes of
truancy, tardiness, suspensions, course failures, and dropout (Anderson et al., 2004; Sinclair,
Christenson, & Thurlow, 2005). It was found that the relationship between the adult and student
was one of the factors responsible for the positive findings (Lehr et al., 2004). The quality and
closeness of relationships between adults from school and students matter.

In this sample, students’ cognitive engagement was unrelated to victimization
experiences or social and emotional maladjustment from victimization. It may be possible that
bullying victimization or maladjustment experiences have a limited influence on students who
are high academic achievers or have elevated levels of cognitive engagement. This finding may
also partially be explained by the demographic characteristics of the school population given that
most students from this private school tended to have high cognitive engagement regardless of
victimization experiences. One way to view these findings is that having high cognitive
engagement may be a potential protective factor against bullying victimization and subsequent
maladjustment. In addition, the mediation and moderated mediation results were non-significant, suggesting additional research is needed to understand the possible mechanisms (i.e., psychological functioning or maladjustment) that explain the direct relationships between bullying victimization and engagement in school and whether teacher support would affect the underlying social-emotional process for victimized youth on their engagement.

Although the demographics characteristics of this sample limits the generalizability of the findings for students in schools, there are several implications based on the demographic characteristics. Students in the higher grade levels of middle school (i.e., 8th grade) were more likely to report lower affective engagement than students in lower grade levels (i.e., 6th grade). These grade level differences are important in that educators need to find ways to support all students in their affective engagement, particularly as they progress through middle school.

Regarding gender differences, female students tended to experience more social and emotional maladjustment, higher levels of teacher support, and more cognitive engagement than males. The gender differences indicate the need for school professionals and parents to be aware that female students may be more affected by bullying victimization than males, but also that males may feel less supported by their teachers or less cognitively engaged in school compared to female students. Regarding racial/ethnic differences, there were generally no differences between White and Non-White students, with the exception that minority youth (i.e., Non-White) reported higher affective engagement compared with White youth. This finding may be influenced by the cultural backgrounds of minority youth and their families. These significant demographic differences highlight the need for school professionals to consider the diversity of each individual (grade level, gender identity, and race/ethnicity).
Conclusions

Given that bullying victimization in schools is a significant problem, the goal of this study was to further understand the relationships between bullying victimization, social and emotional maladjustment, student engagement, and teacher support. Past research findings were informative in developing the aims for this study. There were several gaps in the literature that were addressed in this study. Minimal research examined how different forms of bullying victimization were associated with characteristics of student engagement. Another gap in the research is whether social and emotional maladjustment due to bullying victimization negatively influenced student engagement. The buffering effects of teacher and adult support between bullying victimization on student outcomes such as student engagement had yet to be explored. No research has examined whether social and emotional maladjustment from bullying victimization mediated the association between bullying victimization and student engagement and if teacher support moderated within mediation pathways. The aims of this study addressed these gaps and provided more understanding on the complexity of bullying within a social-ecological model.

Overall, the findings indicate that bullying victimization and maladjustment can be risk factors for student engagement. Teacher support can be a positive factor for overall student engagement and there was limited evidence found that teacher support acts as a protective factor between bullying victimization and student engagement. These results suggest that educators should become aware of those who are being bullied at school and assess for their adjustment and coping to the bullying. Educators who support youth during their victimization experiences may also possibly reduce maladjustment from the victimization experiences. School professionals should consider using interventions that target promoting teacher support in
supporting students being bullied and students who are at risk for low affective and cognitive engagement in school. Together, these findings enhance our understanding of the relationships between bullying victimization, maladjustment, student engagement, and teacher support among middle school aged students and provide evidence for the important role of teacher support for middle school students.
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doi:10.1007/s10578-010-0206-1


doi:10.1111/j.1467-9507.2009.00539.x

doi:10.1001/jama.285.16.2094


Bullying as a group process: Participant roles and their relations to social status


doi:10.1002/pits.20576


Table 1

Demographic Characteristics for the Total Sample

<table>
<thead>
<tr>
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<th>Students</th>
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<tbody>
<tr>
<td></td>
<td>$n$</td>
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<tr>
<td><strong>Grade Level</strong></td>
<td></td>
</tr>
<tr>
<td>Six</td>
<td>43</td>
</tr>
<tr>
<td>Seven</td>
<td>66</td>
</tr>
<tr>
<td>Eight</td>
<td>62</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>81</td>
</tr>
<tr>
<td>Female</td>
<td>82</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>8</td>
</tr>
<tr>
<td><strong>Race/ Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>118</td>
</tr>
<tr>
<td>Asian American</td>
<td>13</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
</tr>
<tr>
<td>Multi-racial</td>
<td>9</td>
</tr>
<tr>
<td>Latino</td>
<td>7</td>
</tr>
<tr>
<td>Black</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>171</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>11-14</td>
<td>12.55 (0.94)</td>
</tr>
<tr>
<td><strong>Grade $M$ (SD)</strong></td>
<td>7.11 (0.78)</td>
</tr>
</tbody>
</table>

*Note. *Students were able to endorse multiple options (racial backgrounds); Other includes eastern European, Middle Eastern
Table 2

Descriptive Statistics for Main Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>$n$</th>
<th>Min</th>
<th>Max</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal/Relational Victimization</td>
<td>171</td>
<td>6</td>
<td>30</td>
<td>11.89</td>
<td>5.26</td>
</tr>
<tr>
<td>Physical Victimization</td>
<td>171</td>
<td>4</td>
<td>15</td>
<td>4.96</td>
<td>2.00</td>
</tr>
<tr>
<td>Social and Emotional Maladjustment</td>
<td>171</td>
<td>6</td>
<td>29</td>
<td>9.09</td>
<td>4.54</td>
</tr>
<tr>
<td>Affective Engagement</td>
<td>170</td>
<td>3</td>
<td>12</td>
<td>9.74</td>
<td>1.80</td>
</tr>
<tr>
<td>Cognitive Engagement</td>
<td>169</td>
<td>6</td>
<td>12</td>
<td>10.53</td>
<td>1.42</td>
</tr>
<tr>
<td>Teacher Support</td>
<td>171</td>
<td>12</td>
<td>32</td>
<td>26.50</td>
<td>3.61</td>
</tr>
</tbody>
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Table 3

Correlations Among Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Verbal/Relational Victimization</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Physical Victimization</td>
<td>.56**</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Total Maladjustment</td>
<td>.83**</td>
<td>.54**</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Affective Engagement</td>
<td>-.29**</td>
<td>-.30**</td>
<td>-.26**</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Cognitive Engagement</td>
<td>.11</td>
<td>0</td>
<td>.08</td>
<td>.30**</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>6. Teacher Support</td>
<td>-.12</td>
<td>-.12</td>
<td>-.10</td>
<td>.50**</td>
<td>.33**</td>
<td>–</td>
</tr>
</tbody>
</table>

_Note._ *p < .05. **p < .01.
Table 4

Reliability of the Scales

<table>
<thead>
<tr>
<th>Scale</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Victimization (12 items)</td>
<td>.91</td>
</tr>
<tr>
<td>Total Victimization (10 items*)</td>
<td>.89</td>
</tr>
<tr>
<td>Physical Victimization (5 items)</td>
<td>.87</td>
</tr>
<tr>
<td>Physical Victimization (4 items)*</td>
<td>.85</td>
</tr>
<tr>
<td>Verbal/Relational Victimization (7 items)</td>
<td>.89</td>
</tr>
<tr>
<td>Verbal/Relational Victimization (6 items)*</td>
<td>.89</td>
</tr>
<tr>
<td>Social and Emotional Maladjustment (6 items)</td>
<td>.88</td>
</tr>
<tr>
<td>Total Student Engagement (6 items)</td>
<td>.77</td>
</tr>
<tr>
<td>Affective Engagement (3 items)</td>
<td>.85</td>
</tr>
<tr>
<td>Cognitive Engagement (3 items)</td>
<td>.73</td>
</tr>
<tr>
<td>Teacher Support</td>
<td>.85</td>
</tr>
</tbody>
</table>

*Note. Cronbach's coefficient alpha was computed; *removal of items with double loadings*
Table 5

Factor Loading for Principal Axis Factoring with Varimax Rotation of the VPBS

<table>
<thead>
<tr>
<th>Items</th>
<th>Verbal/Relational Victimization</th>
<th>Physical Victimization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Called me names</td>
<td>.77</td>
<td>.20</td>
</tr>
<tr>
<td>Made fun of me</td>
<td>.80</td>
<td>.29</td>
</tr>
<tr>
<td>Said they will do bad things to me*</td>
<td>.52</td>
<td>.57</td>
</tr>
<tr>
<td>Played jokes on me</td>
<td>.61</td>
<td>.29</td>
</tr>
<tr>
<td>Wouldn't let me be a part of their group</td>
<td>.68</td>
<td>.21</td>
</tr>
<tr>
<td>Broke my things</td>
<td>.28</td>
<td>.69</td>
</tr>
<tr>
<td>Attacked me</td>
<td>.18</td>
<td>.92</td>
</tr>
<tr>
<td>Nobody would talk to me</td>
<td>.65</td>
<td>.34</td>
</tr>
<tr>
<td>Wrote bad things about me (i.e., on paper)*</td>
<td>.42</td>
<td>.51</td>
</tr>
<tr>
<td>Said mean things behind my back</td>
<td>.82</td>
<td>.24</td>
</tr>
<tr>
<td>Pushed or shoved me</td>
<td>.37</td>
<td>.62</td>
</tr>
<tr>
<td>Threatened me</td>
<td>.19</td>
<td>.81</td>
</tr>
</tbody>
</table>

*Items were not included in further analyses because of the double loading on both verbal/relational victimization and physical victimization factors.
Figure 1. Conceptual model of moderation between bullying victimization and student engagement changing as a function of the moderator variable teacher support. Verbal/relational and physical victimization represent bullying victimization, and affective and cognitive engagement represent student engagement.
Figure 2. Conceptual model of mediation between bullying victimization and student engagement through maladjustment as a mediator variable. Verbal/relational and physical victimization represent bullying victimization, social and emotional maladjustment represent maladjustment, and affective and cognitive engagement represent student engagement.
Figure 3. Conceptual model of moderated mediation of bullying victimization to maladjustment to student engagement, with teacher support as a moderator of the pathway between bullying victimization to maladjustment. Verbal/relational and physical victimization represent bullying victimization, maladjustment represents social and emotional maladjustment, and affective and cognitive engagement represents student engagement.
Figure 4. First step of moderation model. Two types bullying victimization and teacher social support predicting two types of student engagement. Verbal/relational represents verbal/relational victimization, physical represents physical victimization, affective eng represents affective engagement, cognitive eng represents cognitive engagement, and teacher support represents teacher social support. * $p < .05$, ** $p < .01$, *** $p < .001$. 
Figure 5. Second step of moderation model. Two types bullying victimization, two interaction terms of teacher support * verbal/relational and physical victimization, and teacher social support predicting two types of student engagement. Verbal/relational represents verbal/relational victimization, physical represents physical victimization, affective eng represents affective engagement, cognitive eng represents cognitive engagement, and teacher support represents teacher social support. * $p < .05$, ** $p < .01$, *** $p < .001$. 
Figure 6. The interaction between physical victimization and teacher support significantly predicting affective engagement. The medium and high levels of support were significant. * p < .05, ** p < .01, *** p < .001.
Figure 7. The interaction between verbal/relational victimization and teacher support significantly predicting cognitive engagement. The low level of support was significant. * $p < .05$, ** $p < .01$, *** $p < .001$. 
Figure 8. Second step of mediation model. Two types bullying victimization associated with social and emotional maladjustment and two types of student engagement. Verbal/relational represents verbal/relational victimization, physical represents physical victimization, affective eng represents affective engagement, cognitive eng represents cognitive engagement, and maladjustment represents social and emotional maladjustment. * $p < .05$, ** $p < .01$, *** $p < .001$. 
Figure 9. Third step of mediation model. Maladjustment is examined as a mediator of the relationships between two types of bullying victimization and two types of student engagement. Verbal/relational represents verbal/relational victimization, physical represents physical victimization, affective eng represents affective engagement, cognitive eng represents cognitive engagement, and maladjustment represents social and emotional maladjustment. * $p < .05$, ** $p < .01$, *** $p < .001$. 
**Figure 10.** Moderated mediation model with verbal/relational victimization as predictor. Teacher support was evaluated as the moderator within the mediation chain examined in research question four. A model was analyzed to examine if teacher support moderates the relationship between the predictor variable (bullying victimization) and the mediator (social and emotional maladjustment) within the mediation model. Verbal/relational represents verbal/relational victimization, affective eng represents affective engagement, cognitive eng represents cognitive engagement, maladjustment represents social and emotional maladjustment, and teacher support represents teacher social support. * $p < .05$, ** $p < .01$, *** $p < .001$. 
Figure 11. Moderated mediation model with physical victimization as predictor. Teacher support was evaluated as the moderator within the mediation chain examined in research question four. A model was analyzed to examine if teacher support moderates the relationship between the predictor variable (bullying victimization) and the mediator (social and emotional maladjustment) within the mediation model. Physical represents physical victimization, affective eng represents affective engagement, cognitive eng represents cognitive engagement, maladjustment represents social and emotional maladjustment, and teacher support represents teacher social support. * $p < .05$, ** $p < .01$, *** $p < .001$. 
Appendix A

IRB Approval Letter

Official Approval Letter for IRB project #11297 – Continuing Review Form
August 16, 2017 - Official Approval Letter

Susan M Swearer
Department of Educational Psychology
40 TEAC, UNL, 685880345

IRB Number: 20110811297FB
Project ID: 11297
Project Title: Bullying and Victimization among School-aged Youth: A Participatory Action Research Study

Dear Susan M:

This is to officially notify you of the approval of your project's Continuing Review by the Institutional Review Board for the Protection of Human Subjects. It is the committee's opinion that you have provided adequate safeguards for the rights and welfare of the subjects in this study based on the information provided. Your proposal is in compliance with DHHS Regulations for the Protection of Human Subjects (45 CFR 46).

Date of review: 8/9/2017

Your stamped and approved documents (i.e., consent/recruitment) has been uploaded to NUgrant. Please use the stamped form(s) to make copies to distribute to participants. If changes need to be made, please submit the revised forms to the IRB for approval prior to use.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

It is the responsibility of the principal investigator to provide the Board with a review and update of the research project each year the project is in effect. This approval is valid until 08/08/2018. If you have any questions, please contact the IRB office at 402-472-6965.

Sincerely,

Becky R. Freeman, CIP for the IRB
Appendix B

Referral Sources

School Logo Here

If You Need Help Dealing with Bullying and Related Issues:

Referral Sources for Therapy or Counseling in the XXXX, XXXX Area

Counseling Office at XXXX School
Phone number

Referral source
Phone number

Referral source
Phone number

Referral source
Phone number

Referral source
Phone number

Referral source
Phone number

Referral source
Phone number
Appendix C

Demographics Form

What is your age? _____

What grade are you in? _____

What is your gender?

☐ Male/Boy  ☐ Female/Girl  ☐ Transgender  ☐ Prefer not to say

What is your race?

☐ White/Caucasian  ☐ Black/African American
☐ Latino/Hispanic  ☐ Middle Eastern
☐ Native American  ☐ Asian
☐ Eastern European  ☐ Prefer not to say
☐ Multi-racial (Please specify): _____
☐ Other: _____

What language is spoken in your home? ____________________

What country is your family from? ____________________
Appendix D

Bully Survey – Student Version (BYS-S)

Measure is copyrighted and was used for this study with permission by the author.

Date: _________________________

Swearer Bully Survey – Student Version: A Participatory Action Research Study (BYS-S PAR)©

**Instructions:** In this survey you will be asked to respond to questions and statements about bullying.

Bullying happens when someone hurts or scares another person on purpose and the person being bullied has a hard time defending himself or herself. Usually, bullying happens over and over.

- Punching, shoving and other acts that hurt people physically
- Spreading bad rumors about people
- Keeping certain people out of a group
- Teasing people in a mean way
- Getting certain people to “gang up” on others

******************************************************************************

There are four parts to this survey: (A) When you were bullied by others, (B) When you saw other students getting bullied, (C) When you bullied others, and (D) Your thoughts about bullying.

******************************************************************************

Copyright © 2001 by Susan M. Swearer, Ph.D. Revised: 08/2017/PAR
PART A: In this part, you will be asked about times when you were bullied.

REMEMBER: Bullying happens when someone hurts or scares another person on purpose and the person being bullied has a hard time defending himself or herself. Usually, bullying happens over and over.
- Punching, shoving and other acts that hurt people physically
- Spreading bad rumors about people
- Keeping certain people out of a group
- Teasing people in a mean way
- Getting certain people to “gang up” on others

1a. Have you been bullied this school year?

☐ Yes ☐ No

1b. If yes, how often have you been bullied? (Check one)

☐ one or more times a day
☐ one or more times a week
☐ one or more times a month

If you have not been bullied this year, you may move on to Part B.

2a. Where have you been bullied? (Check all that apply)

☐ homeroom ☐ cafeteria
☐ academic class ☐ before school
☐ bus ☐ after school
☐ gym ☐ dances
☐ locker room ☐ sporting events
☐ hallway ☐ telephone
☐ bathroom ☐ online/texting outside of school
☐ online/texting during school ☐ recess
☐ other: ___________________
Circle the ONE place you have been bullied the most.

2b. If you checked online/texting, please explain. (Check all that apply)

- Facebook
- Instagram
- Twitter
- Online Gaming
- Iming
- Email
- Texting
- Other social media (please describe): ______________

3. How did you get bullied?  (Check how often these things happened)

<table>
<thead>
<tr>
<th></th>
<th>Never Happened</th>
<th>Rarely Happened</th>
<th>Sometimes Happened</th>
<th>Often Happened</th>
<th>Always Happened</th>
</tr>
</thead>
</table>
a. Called me names            |                 |                   |                   |               |               |
c. Made fun of me            |                 |                   |                   |               |               |
d. Said they will do bad things to me |     |                   |                   |               |               |
e. Played jokes on me         |                 |                   |                   |               |               |
f. Wouldn’t let me be a part of their group |     |                   |                   |               |               |
g. Broke my things           |                 |                   |                   |               |               |
h. Attacked me               |                 |                   |                   |               |               |
i. Nobody would talk to me   |                 |                   |                   |               |               |
j. Wrote bad things about me (i.e., on paper) |     |                   |                   |               |               |
k. Said mean things behind my back |     |                   |                   |               |               |
l. Pushed or shoved me       |                 |                   |                   |               |               |
m. Wrote mean things or made things up online about me (i.e., Facebook, Instagram, Twitter, etc.) |     |                   |                   |               |               |
n. Threatened me             |                 |                   |                   |               |               |
o. Other ways you were bullied: |

4. Who bullied you?  (Check all that apply)

- older boys
- older girls
- younger boys
- younger girls
- boys in the same grade
- girls in the same grade
- someone who is strong
- someone who is weak
- someone who has many friends
- someone who doesn’t have many friends
- someone who is popular
- someone who is not popular
- someone who is smart
- someone who is not smart
- someone who is an adult
- my girlfriend/boyfriend
<table>
<thead>
<tr>
<th>Radio Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>someone who I didn’t know</td>
</tr>
<tr>
<td></td>
<td>someone I was interested in but never went out with</td>
</tr>
<tr>
<td></td>
<td>someone who is powerful</td>
</tr>
<tr>
<td></td>
<td>someone who is not powerful</td>
</tr>
<tr>
<td></td>
<td>my brother</td>
</tr>
<tr>
<td></td>
<td>my sister</td>
</tr>
<tr>
<td></td>
<td>someone who is in my group of friends</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>
5. How much of a problem was the bullying for you?

<table>
<thead>
<tr>
<th></th>
<th>Never a Problem</th>
<th>Rarely a Problem</th>
<th>Sometimes a Problem</th>
<th>Often a Problem</th>
<th>Always a Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Made me feel sick</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. I couldn't make friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Made me feel bad or sad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Made it difficult to learn at school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. I didn’t come to school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. I had problems with my family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Other ways this was a problem for you:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6a. Why do you think you were bullied? (Check all that apply)

Because:
- they think my face looks funny
- they think I'm fat
- they think I'm skinny
- they think I look too old
- they think I look too young
- they think I am a wimp
- they think my friends are weird
- I'm sick a lot
- I have a disability
- I get good grades
- I get bad grades
- where I live
- the clothes I wear
- the color of my skin
- the country I'm from
- I am different
- the church I go to
- I have a food allergy
- my parents
- my brother
- my sister
- my family is poor
- my family has a lot of money
- someone in my family has a disability
- I am too tall
- I am too short
- I am in special education
- I get angry a lot
- I cry a lot
- I can't get along with other people
- they say I'm gay
- the way I talk
- I act too much like a boy
- I act too much like a girl
- other (describe): _________________

6b. Circle the MAIN reason why you were bullied.
7a. Were you able to protect yourself from the bullying?

☐ Yes  ☐ No

7b. If yes, what did you do?  

8. Did the teachers and school staff know about the bullying that happened to you?

☐ Yes  ☐ No  ☐ I don’t know

9. How do you think the teachers and school staff took care of the bullying?

☐ Very well  ☐ Okay  ☐ Bad  ☐ I don’t know

10. Tell us what the teachers and school staff did to take care of the bullying.

11. Did your parents know about the bullying that happened to you?

☐ Yes  ☐ No  ☐ I don’t know

12a. Does anyone bully you at home? (Check everyone who has bullied you)

☐ no one  ☐ sister  ☐ friend

☐ father  ☐ stepfather  ☐ other relative

☐ mother  ☐ stepmother  ☐ neighbor

☐ brother  ☐ grandparent  ☐ other: ______________

12b. Is the bullying at home different from the bullying at school? How?

13. Is bullying a problem in your school?

☐ Yes  ☐ No

14. Do you think that schools should worry about bullying?

☐ Yes  ☐ No
The Bully Survey - Part B

PART B: In this part, you will be asked about other students who have been bullied.

REMEMBER: Bullying happens when someone hurts or scares another person on purpose and the person being bullied has a hard time defending himself or herself. Usually, bullying happens over and over.

• Punching, shoving and other acts that hurt people physically
• Spreading bad rumors about people
• Keeping certain people out of a group
• Teasing people in a mean way
• Getting certain people to “gang up” on others

15a. Did you ever see a student other than yourself who was bullied this school year?

☐ Yes
☐ No

15b. If yes, how often did you see this student being bullied? (Check one)

☐ one or more times a day
☐ one or more times a week
☐ one or more times a month

If you did not see any students get bullied this year, move to Part C.

16a. Where was the student bullied? (Check all that apply)

☐ homeroom
☐ academic class
☐ bus
☐ gym
☐ locker room
☐ hallway
☐ bathroom
☐ online/texting during school
☐ cafeteria
☐ before school
☐ after school
☐ dances
☐ sporting events
☐ telephone
☐ online/texting outside of school
☐ recess
☐ other: ______________________

Circle the ONE place you saw the student get bullied the most.

16b. If you checked online/texting, please explain. (Check all that apply)

☐ Facebook
☐ IMing
☐ Instagram
☐ Email
☐ Twitter
☐ Texting
☐ Online Gaming
☐ Other social media (please describe):____________________
## 17. How did this student get bullied?  
(Check how often these things happened)

<table>
<thead>
<tr>
<th></th>
<th>Never Happened</th>
<th>Rarely Happened</th>
<th>Sometimes Happened</th>
<th>Often Happened</th>
<th>Always Happened</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Called him/her names</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>b.</td>
<td>Made fun of him/her</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>d.</td>
<td>Said they will do bad things to him/her</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>e.</td>
<td>Played jokes on him/her</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>f.</td>
<td>Wouldn't let him/her be a part of their group</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>g.</td>
<td>Broke his/her things</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>h.</td>
<td>Attacked him/her</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>i.</td>
<td>Nobody would talk to him/her</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>j.</td>
<td>Wrote bad things about him/her</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>k.</td>
<td>Said mean things behind his/her back</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>l.</td>
<td>Got pushed or shoved</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>m.</td>
<td>Wrote mean things or made things up online about him/her (i.e., Facebook, Instagram, Twitter, etc.)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>n.</td>
<td>Threatened him/her</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

**o.** Other ways (s)he was bullied:
18. Who bullied this student? (Check all that apply)

- older boys
- older girls
- younger boys
- younger girls
- boys in the same grade
- girls in the same grade
- someone who is strong
- someone who is weak
- someone who (s)he didn’t know
- someone (s)he was interested in but never went out with
- someone who is powerful
- someone who is not powerful
- someone who has many friends
- someone who doesn’t have many friends
- someone who is popular
- someone who is not popular
- someone who is smart
- someone who is not smart
- someone who is an adult
- his/her girlfriend/boyfriend
- his/her brother
- his/her sister
- someone who is in his/her group of friends
- Other ______________________

19. How did seeing the bullying affect you?

<table>
<thead>
<tr>
<th></th>
<th>Never a Problem</th>
<th>Rarely a Problem</th>
<th>Sometimes a Problem</th>
<th>Often a Problem</th>
<th>Always a Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Made me feel sick</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. I couldn’t make friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Made me feel bad or sad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Made it difficult for me to learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. I didn’t come to school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. I had problems with my family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Other ways this was a problem:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
20a. Why do you think this student was bullied? (Check all that apply).

Because:

- his/her face looks funny
- (s)he is fat
- (s)he is skinny
- (s)he looks too old
- (s)he looks too young
- (s)he is a wimp
- his/her friends are weird
- (s)he is sick a lot
- (s)he is disabled
- (s)he gets good grades
- (s)he gets bad grades
- where (s)he lives
- the clothes (s)he wears
- the color of his/her skin
- the country (s)he is from
- (s)he is different
- the church (s)he goes to
- (s)he has a food allergy
- his/her parents
- his/her brother
- his/her sister
- his/her family is poor
- his/her family has a lot of money
- someone in his/her family is disabled
- (s)he is too tall
- (s)he is too short
- (s)he is in special education
- (s)he gets angry a lot
- (s)he cries a lot
- (s)he can’t get along with other people
- (s)he is gay
- the way (s)he talks
- (s)he acts too much like a boy
- (s)he acts too much like a girl
- other

(describe):_________________

20b. Circle the MAIN reason why this student was bullied.

20c. Was the student able to protect him/herself from the bullying?

- Yes
- No

21. Did the teachers and school staff know about the bullying that you saw?

- Yes
- No
- I don’t know

22a. How do you think the teachers and school staff took care of the bullying?

- Very well
- Okay
- Bad
- I don’t know

22b. Tell us what the teachers and school staff did to take care of the bullying.

________________________________________________________________________

23. Tell us what you did about the bullying.

________________________________________________________________________
### The Bully Survey - Part C

**PART C:** In this part, you will be asked about when you bullied another student.

**REMEMBER:** Bullying happens when someone hurts or scares another person on purpose and the person being bullied has a hard time defending himself or herself. Usually, bullying happens over and over.

- Punching, shoving and other acts that hurt people physically
- Spreading bad rumors about people
- Keeping certain people out of a “group”
- Teasing people in a mean way
- Getting certain people to “gang up” on others

#### 24a. Did you bully anyone this school year?

- [ ] Yes
- [ ] No

**24b. If yes, how often did you bully this person?** (Check one)

- [ ] one or more times a day
- [ ] one or more times a week
- [ ] one or more times a month

*If you never bullied other students this year, go to Part D and answer the rest of the questions.*

#### 25a. Where did you bully him or her? (Check all that apply)

- [ ] homeroom
- [ ] academic class
- [ ] bus
- [ ] gym
- [ ] locker room
- [ ] hallway
- [ ] bathroom
- [ ] online/texting during school
- [ ] cafeteria
- [ ] before school
- [ ] after school
- [ ] dances
- [ ] sporting events
- [ ] telephone
- [ ] online/texting outside of school
- [ ] recess
- [ ] other: ___________________

*Circle the ONE place you bullied the person the most.*

#### 25b. If you checked online/texting, please explain. (Check all that apply)

- [ ] Facebook
- [ ] Instagram
- [ ] Twitter
- [ ] Online Gaming
- [ ] IMing
- [ ] Email
- [ ] Texting
- [ ] Other social media (please describe): ___________________
26. How did you bully this person? (Check how often these things happened)

<table>
<thead>
<tr>
<th></th>
<th>Never Happened</th>
<th>Rarely Happened</th>
<th>Sometimes Happened</th>
<th>Often Happened</th>
<th>Always Happened</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Called him/her names</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Made fun of him/her</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Said I will do bad things to him/her</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. Played jokes on him/her</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f. Wouldn’t let him/her be a part of my group</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g. Broke his/her things</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>h. Attacked him/her</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>i. Wouldn’t talk to him/her</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>j. Wrote bad things about him/her</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>k. Said mean things behind his/her back</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>l. Pushed or shoved him/her</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>m. Wrote mean things or made things up online about him/her (i.e., Facebook, Instagram, Twitter, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>n. Threatened him/her</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o. Other ways you bullied:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

27. Who did you bully? (Check all that apply)

- ☐ older boys
- ☐ older girls
- ☐ younger boys
- ☐ younger girls
- ☐ boys in the same grade
- ☐ girls in the same grade
- ☐ someone who is strong
- ☐ someone who is weak
- ☐ someone who I didn’t know in but never went out with
- ☐ someone who is powerful
- ☐ someone who is not powerful
- ☐ someone who has many friends
- ☐ someone who doesn’t have many friends
- ☐ someone who is popular
- ☐ someone who is not popular
- ☐ someone who is smart
- ☐ someone who is not smart
- ☐ someone who is an adult
- ☐ my girlfriend/boyfriend
- ☐ my brother
- ☐ my sister
- ☐ someone who is in my group of friends
- ☐ Other ________________________
28a. How much was this a problem for the student you bullied?

<table>
<thead>
<tr>
<th></th>
<th>Never a Problem</th>
<th>Rarely a Problem</th>
<th>Sometimes a Problem</th>
<th>Often a Problem</th>
<th>Always a Problem</th>
<th>I Don't Know</th>
<th>I Don't Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Made him/her feel sick</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. (S)he couldn't make friends</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Made him/her feel bad or sad</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Made it difficult for him/her to learn</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. (S)he didn’t come to school</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f. (S)he had problems with his/her family</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g. Other ways this was a problem:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

28b. How much was the bullying you did a problem for you?

<table>
<thead>
<tr>
<th></th>
<th>Never a Problem</th>
<th>Rarely a Problem</th>
<th>Sometimes a Problem</th>
<th>Often a Problem</th>
<th>Always a Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Made me feel sick</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. I couldn’t make friends</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Made me feel bad or sad</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Made it difficult for me to learn</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. I didn’t come to school</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f. I had problems with my family</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g. Other ways this was a problem for you:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
29a. Why did you bully this person? (Check all that apply)
Because:

☐ his/her face looks funny
☐ (s)he is fat
☐ (s)he is skinny
☐ (s)he looks too old
☐ (s)he is looks too young
☐ (s)he is a wimp
☐ his/her friends are weird
☐ (s)he is sick a lot
☐ (s)he has a disability
☐ (s)he gets good grades
☐ (s)he gets bad grades
☐ where (s)he lives
☐ the clothes (s)he wears
☐ the color of his/her skin
☐ the country he/she is from
☐ (s)he is different
☐ The church (s)he goes too
☐ (s)he has a food allergy
☐ his/her parents
☐ his/her brother
☐ his/her sister
☐ his/her family is poor
☐ his/her family has a lot of money
☐ someone in his/her family has a disability
☐ (s)he is too tall
☐ (s)he is too short
☐ (s)he is in special education
☐ (s)he gets angry a lot
☐ (s)he cries a lot
☐ (s)he can’t get along with other people
☐ (s)he is gay
☐ the way (s)he talks
☐ (s)he acts too much like a boy
☐ (s)he acts too much like a girl
☐ other (describe):_________________

29b. Circle the MAIN reason why you bullied this person.

29c. Was the student able to protect him/herself from your bullying?
☐ Yes ☐ No

30. Did the teachers and school staff know about the bullying that you did?
☐ Yes ☐ No ☐ I don’t know

31. How do you think the teachers and school staff took care of the bullying?
☐ Very well ☐ Okay ☐ Bad ☐ I don’t know

32. Tell us what the teachers and school staff did to take care of the bullying.

33. Is bullying a problem in your school?
☐ Yes ☐ No

34. Do you think that schools should worry about bullying?
☐ Yes ☐ No
PART D: In this part, you will be asked about your thoughts about bullying.

35. How much do you agree with each sentence?

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Most people who get bullied ask for it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Bullying is a problem for kids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. I don't like bullies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Bullies scare people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Bullying toughens wimpy kids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Bullies hurt kids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. It's okay to be friends with a bully</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. It's okay to bully others online</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. I can understand why someone would bully other kids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. I think bullies should be punished</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Bullies don't mean to hurt anybody</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. Bullies make kids feel bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. I feel sorry for kids who are bullied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n. Being bullied is no big deal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o. It's okay to bully others if I don't get caught</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

36. Is bullying a problem in your school?
   ☐ Yes ☐ No

37. Do you think that school staff should worry about bullying?
   ☐ Yes ☐ No

38. Please write any other ideas you have about bullying and being bullied.
   ____________________________________________________________
46. How well do you do in your schoolwork? On your last report card, if you think of all of your subjects, what did you get? (Check one)

☐ mostly As  ☐ As and Bs
☐ mostly Bs  ☐ Bs and Cs
☐ mostly Cs  ☐ Cs and Ds
☐ mostly Ds  ☐ Ds and lower

47. Do you have a food allergy? (Circle one)  Yes  No

48. If yes, what foods are you allergic to: ________________________________

I read this survey carefully.  Yes  No
I told the truth on this survey.  Yes  No
Appendix E

Verbal and Physical Bullying Scale (VPBS)

Measure is copyrighted and was used for this study with permission by the author.

**Instructions:** You will be asked about being bullied this school year.

**REMEMBER:** Bullying happens when someone hurts or scares another person on purpose and the person being bullied has a hard time defending himself or herself. Usually, bullying happens over and over.

- Punching, shoving and other acts that hurt people physically
- Spreading bad rumors about people
- Keeping certain people out of a group
- Teasing people in a mean way
- Getting certain people to “gang up” on others

How did you get bullied? (Select how often these things happened)

<table>
<thead>
<tr>
<th>How were you bullied?</th>
<th>Never Happened</th>
<th>Rarely Happened</th>
<th>Sometimes Happened</th>
<th>Often Happened</th>
<th>Always Happened</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Called me names</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Made fun of me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Said they will do bad things to me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Played jokes on me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. Wouldn’t let me be a part of their group</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f. Broke my things</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g. Attacked me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>h. Nobody would talk to me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>i. Wrote bad things about me (i.e., on paper)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>j. Said mean things behind my back</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>k. Pushed or shoved me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>l. Wrote mean things or made things up online about me</td>
<td>i.e., Facebook, Instagram, Twitter, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>m. Threatened me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>o. Other ways you were bullied:</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Appendix F

Social and Emotional Maladjustment Scale (SeMS)

Measure is copyrighted and was used for this study with permission by the author.

How much of a problem was the bullying for you?

<table>
<thead>
<tr>
<th></th>
<th>Never a Problem</th>
<th>Rarely a Problem</th>
<th>Sometimes a Problem</th>
<th>Often a Problem</th>
<th>Always a Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Made me feel sick</td>
<td>☐ ✔ ✔ ✔ ✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>I couldn’t make friends</td>
<td>☐ ✔ ✔ ✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Made me feel bad or sad</td>
<td>☐ ✔ ✔ ✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Made it difficult to learn at school</td>
<td>☐ ✔ ✔ ✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>I didn’t come to school</td>
<td>☐ ✔ ✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td>I had problems with my family</td>
<td>☐ ✔ ✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g.</td>
<td>Other ways this was a problem for you:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G

Student Engagement Scale

Measure is copyrighted and was used for this study with permission by the author.

Instructions: The questions will ask how you feel about your school and how students get along with one another and their teachers. We want to know your opinion in order to learn ways to improve your school.

Items for Affective Engagement

<table>
<thead>
<tr>
<th>How do you feel about going to this school?</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I like this school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I am proud to be a student at this school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I feel like I belong at this school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Items for Cognitive Engagement

<table>
<thead>
<tr>
<th>How do you feel about going to this school?</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. I usually finish my homework.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I want to learn as much as I can at school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Getting good grades is very important to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix H

Teacher Support Scale

Measure is copyrighted and was used for this study with permission by the author.

Instructions: The questions will ask how you feel about your school and how students get along with one another and their teachers. We want to know your opinion in order to learn ways to improve your school.

Items for Respect for Students

<table>
<thead>
<tr>
<th>Most teachers and other adults at this school …</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. …care about all students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. …want all students to do well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. …listen to what students have to say.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. …treat students with respect.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Items for Willingness to Seek Help

<table>
<thead>
<tr>
<th>How much do you agree or disagree with these statements?</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. There are adults at this school I could talk with if I had a personal problem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. If I tell a teacher that someone is bullying me, the teacher will do something to help.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. I am comfortable asking my teachers for help with my schoolwork.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. There is at least one teacher or other adult at this school who really wants me to do well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix I

Flow Chart of The Participatory Action Research Study Design

Bullying and Victimization among School-aged Youth: A Participatory Action Research Study

School contacts Dr. Swearer (random requests or in response to website announcement)

IRB is notified for each additional participating school

UNL investigators send school Letter of Interest

School indicates on letter of interest participants they would like to complete and measures (at a minimum students will participate)

Student (will always participate with parental consent)

Parent (if they consent)

Teacher (if school chooses to have them participate and they consent)

Possible measures:
Bully Survey: Parent Version
Bully Survey: Teacher Version

Possible measures chosen by school
(in addition to Bully Survey):
Aggression, Anxiety, Cognitive Distortions,
Dating Violence, Depression, Gender Roles,
Individualism/Collectivism, School Climate,
Self Perceptions

School research contact person sends Letter of Interest back to investigators

Parent Information Letter Sent with Consent Information (see sample)

Teacher Information Letter Sent with Consent Information (see sample)

Two weeks elapse to obtain consent and to prepare Qualtrics for specific measures requested by the school

After two weeks, investigators create spreadsheet with participant names and codes
(only for those who have provided consent) so they can access the surveys

Spreadsheets sent to the schools and codes are distributed to participants

Child/youth assent obtained

All participants access surveys and complete them
Dear Dr. Swearer,

I am contacting you because I am interested in having (school/district name here) participate in the Target Bullying Survey and Involvement Project. We recognize the importance of the school-wide assessment of bullying and know that other psychosocial factors play an important role in maintaining these behaviors. Therefore, collecting data is a crucial first step to understanding the bullying behaviors of our student body and to identifying effective strategies for reducing bullying at (school/district name here).

We are equipped to administer the survey measures via the Qualtrics Survey Software, after electronic parent consent and youth assent are obtained. If parent consent is not provided, surveys will not be administered to those students.

We understand that gathering information on constructs related to bullying can provide valuable information for us, and that we can customize this project to fit our interests. For example, by selecting to administer the Body Image and Anxiety measures, we may learn that the way our students’ view their bodies impacts how they feel about themselves. In addition to information on bullying/victimization, we would like to gather information about the constructs that are checked below:

In addition to the Bully Survey – Student Version, my school is interested in administering the following questionnaires:

- **Aggression** (ages 9 and up)
  The Aggression Questionnaire provides an understanding of aggressive tendencies, including tendencies towards physical and verbal aggression. 34 items; approximately 5-10 minutes to complete.

- **Anxiety** (ages 8-19)
  Anxiety is strongly linked to bullying and victimization. The Multidimensional Anxiety Scale for Children measures a students’ anxiety, and can give schools a picture of how many students suffer from high levels of anxiety. 39 items; approximately 10 minutes to complete.

- **Body Image** (ages 5 and up)
  The Body Image Silhouettes of the Kids Eating Disorders Survey (KEDS) is a brief measure of body image. The child is asked to choose one image that looks most like him/herself as well as the image that he/she would most like to look like. 2 items; approximately 1 minute to complete.
Bystander Reactions to Bullying/Victimization (ages 12 and up)

Most bullying is seen by bystanders, yet most bystanders do not intervene. The Bystander Questionnaire helps schools understand how often their students choose to help the bully or the victim, as well as why they make that choice. 51 items, approximately 10 minutes to complete.

Callous Unemotional Traits (ages 12 and up)

The Inventory of Callous-Unemotional Traits (ICU) provides an assessment of traits related to antisocial and aggressive behavior in youth that may relate to bullying. Youth, parent, and teacher report options are available. 24 items; approximately 10 minutes to complete.

Cognitive Distortions (ages 13-20)

The How-I-Think Questionnaire measures thinking errors, such as “you have to get even with people who don’t show you respect,” that affect our behavior. 54 items, approximately 5-15 minutes to complete.

Depression (ages 7-17)

Depression is strongly linked to bullying and victimization. The Children’s Depression Inventory measures depressive symptoms in children. 27 items, approximately 5-10 minutes to complete.

Empathy (ages 14 and up)

The Interpersonal Reactivity Index measures empathy, including how students’ think about empathy and how much they feel empathy. 28 items, approximately 5-10 minutes to complete.

Friendship Networks (ages 5 and up)

The Friendship Network Scale asks students to list one to eight friends whom they hang out with most often in school, as well as who is teased most often, who teases most often, and who is most popular. 8 items; approximately 5 minutes to complete.

Hazing (ages 12 and up)

The Hazing Perceptions Questionnaire asks students to identify the degree to which various behaviors constitute bullying and/or hazing. 70 items; approximately 15 minutes to complete.

HEAR Evaluation (Grades 6 and up)

The HEAR evaluation provides information about bullying and school climate, as well as how students respond to HEAR presentation. 10 items; approximately 5 minutes to complete.

Parent Reports of Bullying/Victimization

The Bully Survey – Parent Version is designed to parallel the Bully Survey completed by your students. It measures parental attitudes towards the bullying their children face. 33 items; approximately 20 minutes to complete; note: this measure is completed by parents.

School-Bullying Climate (ages 12 and up)

Positive school climates can help reduce the risk of bullying and victimization. The Thoughts About School Questionnaire assesses students’ perceptions of their school’s school-bullying climate. 35 items; approximately 5-10 minutes to complete.
School Climate (Grades 6 and up)
The Authoritative School Climate survey assesses two aspects of school climate: students’ perceptions of support and safety within their school. 15 items; approximately 5-10 minutes to complete.

Social Skills (ages 5 and up)
The Strengths and Difficulties Questionnaire (SDQ) measures students’ social strengths and weaknesses. 25 items; approximately 10 minutes to complete.

Student Engagement (Grades 6 and up)
The Student Engagement in School Survey measures how students feel about school, their actions towards learning, and how they learn things. 33 items; approximately 10 minutes to complete.

Students’ Self-Perceptions (ages 8 and up)
The What I Am Like self-perception scale measures students’ sense of self-worth, their self-esteem, and how they generally feel about themselves. 35 items, approximately 5-10 minutes to complete.

Teacher Reports of Bullying/Victimization
The Bully Survey – Teacher Version is designed to parallel the Bully Survey completed by your students. It measures teachers attitudes towards the bullying their students face. 29 items; approximately 20 minutes to complete; note: this measure is completed by teachers.

We understand that any data collected will be used for research purposes and can be published and/or presented at conferences. We are also pleased that aggregate responses from the Bully Surveys and other measures will be shared with us since they will provide us with valuable information that can be disseminated to our teachers, school staff, students, and parents. We look forward to partnering with the Target Bullying Survey and Involvement Project team. Please let me know as soon as possible what steps need to be taken to begin the data-collection process at (school/district name here).

Sincerely,

(name and signature of school/district representative)
Appendix K

Parent/Guardian Consent for Student Participation

Parental/Guardian Consent Form

Bullying and Victimization among School-aged Youth: A Participatory Action Research Study

Dear Parent or Guardian:

You are invited to permit your child to participate in this research study. The following information is provided in order to help you make an informed decision whether or not to allow your child to participate. If you have any questions please do not hesitate to ask.

Your child is eligible to participate in this study because he or she is a student in the (INSERT SCHOOL NAME HERE). The research project will take place at your child’s respective school on paper or on the computer during school hours.

The purpose of this study is to investigate bullying behavior and victims of bullying behavior among school-aged students in the United States.

This study will take approximately 30 minute to one hour of your child’s time. Your child will be asked to complete several questionnaires concerning his or her behaviors while at school, at home, in his or her neighborhood, as well as questions about his or her emotional status. Specifically, the students will be asked questions about whether or not they or any student they know has been bullied.

You and your child’s teachers will also provide ratings of students' behaviors, which will take approximately 30 minutes of your time. Additionally, your child's school records will be accessed by the researchers to look at age, ethnicity, current living arrangement, standardized testing, special education status, attendance, grades, and office referrals.

Your child may experience mild discomfort when completing the questionnaires (for example, questions asking them to describe any bullying they may have personally experienced). There are no direct benefits to you as a research participant. However, as a result of participating in this research, it is possible your child will learn new coping skills for dealing with bullying, as he or she will be given a referral list of counselors in your community who are available to talk about
bullying. If you should choose to access any of these services, you will be responsible for payment.

Any information obtained during this study that could identify your son or daughter will be kept strictly confidential. Every participant will be given a code number so he or she will not be able to be identified by peers, teachers, or researchers. Because of the nature of the classroom environment, it may be possible that someone will see answers as they complete the surveys, but all persons will be encouraged to maintain privacy. The information obtained in this study may be published in scientific journals or presented at scientific meetings, but your child’s identity will be kept strictly confidential. Each school will be provided with an aggregate summary of the results of the surveys and questionnaires. All data will be de-identified and summarized so no individual participant will be able to be identified. Study records will be kept for seven years in a locked file cabinet or on a secure website in the principal investigator’s office at the University of Nebraska-Lincoln.

You are free to decide not to enroll your child in this study or to withdraw your child at anytime without adversely affecting your child’s or your relationship with the investigators, the University of Nebraska-Lincoln, or (INSERT SCHOOL DISTRICT HERE). Since data collection will take place in computer labs, non-participating students will work on existing computer programs/activities that are typically occurring in computer labs. Your child’s grades will not be affected based upon their decision to participate and any relationship with the (INSERT SPECIFIC PARTICIPATING SCHOOL NAME HERE) will also not be affected along with the (INSERT SCHOOL DISTRICT HERE). Your decision will not result in any loss of benefits to which your child is otherwise entitled.

Your child’s rights as a research participant have been explained to you. If you have any questions about this study, please contact Dr. Susan Swearer at (402) 472-1741. If you have any questions concerning your child’s rights as a research participant that have not been answered by the investigator, or to report any concerns about the study, please contact the UNL Institutional Review Board at 402-472-6965.

DOCUMENTATION OF INFORMED CONSENT

YOU ARE VOLUNTARILY MAKING A DECISION WHETHER OR NOT TO ALLOW YOUR CHILD TO PARTICIPATE IN THIS RESEARCH STUDY. YOUR SIGNATURE CERTIFIES THAT YOU HAVE DECIDED TO ALLOW YOUR CHILD TO PARTICIPATE HAVING READ AND UNDERSTOOD THE INFORMATION PRESENTED. YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

The University of Nebraska-Lincoln wants to know about your research experience. This 14 question, multiple-choice survey is anonymous; however, you can provide your contact information if you want someone to follow-up with you. This survey should be completed after
your participation in this research. Please complete this optional online survey at: https://ssp.qualtrics.com/SE/?SID=SV_aVvINCi0U1vse5n.

SIGNATURE OF PARENT/GUARDIAN

DATE

PRINT YOUR CHILD'S NAME
IN MY JUDGMENT THE PARENT/LEGAL GUARDIAN IS VOLUNTARILY AND KNOWINGLY GIVING INFORMED CONSENT.

SIGNATURE OF SCHOOL OFFICIAL

DATE

SIGNATURE OF INVESTIGATOR

DATE

IDENTIFICATION OF PRIMARY INVESTIGATOR

Susan M. Swearer, Ph.D. Office Number: (402) 472-1741
Appendix L

Youth Assent

Youth Assent Form

Bullying and Victimization among School-aged Youth: A Participatory Action Research Study

We are inviting you to participate in this study because you are a student at (INSERT SCHOOL NAME HERE) and we are interested in your school experiences.

This research will take you about 30 minutes to one hour to do. We will ask you to fill out several questionnaires on paper or on the computer that ask questions about your emotions and about how you and other students in your school get along with each other. We will also look at your school records to find out information about your age, grades, ethnicity, current living arrangement, standardized testing, special education status, attendance, office referrals, and height and weight.

There are no direct benefits to you as a research participant. Some of the questions may cause you to feel uncomfortable as they may touch on personal subjects. Being in the study may help you think about some of your feelings and concerns you experience at school. We will provide you with a list of teachers and counselors who may be able to further help you. We hope the information from this research will help us better understand the struggles and challenges students may experience. Additionally, we hope to gain an understanding of how to help students feel safer and happier in school.

Your responses will be kept strictly confidential. Even though one of the questions will ask for your name, this information will not be attached to your responses. So, there will be no way for us to know which responses belong to you or someone else after we have coded each questionnaire. Each questionnaire will have a code number that we will use to organize the data. Because of the nature of the classroom environment, it may be possible that someone will see answers as they complete the surveys, but all participants will be encouraged to maintain privacy. We may publish a summary of everybody’s responses or present a summary at a scientific meeting, but your identity and your responses will be totally confidential. Each school will be provided with an aggregate summary of the surveys and questionnaires. All data will be de-identified and summarized, so no individual participants will be able to be identified.
We will also ask your parents or guardians for their permission for you to do this study. You may talk this over with them before you decide whether or not to participate.

You are free to decide not to participate in this study or to withdraw at any time without negatively affecting your relationship with the investigators, the University of Nebraska, or (INSERT SCHOOL DISTRICT HERE). Your grades will not be affected based upon their decision to participate and any relationship with the (INSERT SPECIFIC PARTICIPATING SCHOOL HERE) along with the (INSERT SCHOOL DISTRICT HERE) will not be affected. Your decision will not result in any loss of benefits to which you are otherwise entitled. If you decide not to participate, you will work on the computer programs or activities that are typically occurring in the computer lab while the other students complete the surveys.

If you have any questions at any time, please ask one of the researchers, or you may call Dr. Susan Swearer at (402) 472-1741.

The University of Nebraska-Lincoln wants to know about your research experience. This 14 question, multiple-choice survey is anonymous; however, you can provide your contact information if you want someone to follow-up with you. This survey should be completed after your participation in this research. Please complete this optional online survey at: https://ssp.qualtrics.com/SE/?SID=SV_aVvlNCf0U1vse5n.

If you check “yes” it means that you have decided to participate and have read everything that is on the form. You and your parents or guardians will be given a copy of this form to keep.

__________Yes, I would like to participate in the study.

__________No, I do not want not to participate in the study.

SIGNATURE OF STUDENT ___________________________ DATE ____________

PRINT YOUR NAME ____________________________________________

IN MY JUDGMENT THE PARENT/LEGAL GUARDIAN IS VOLUNTARILY AND KNOWINGLY GIVING INFORMED CONSENT.
SIGNATURE OF SCHOOL OFFICIAL          DATE

SIGNATURE OF INVESTIGATOR              DATE

IDENTIFICATION OF PRIMARY INVESTIGATOR

Susan M. Swearer, Ph.D.  Office Number: (402) 472-1741