

THESIS

ASSOCIATIONS AMONG MINDFULNESS, SELF-COMPASSION, AND BULLYING IN  
EARLY ADOLESCENCE

Submitted by

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## ABSTRACT

### ASSOCIATIONS AMONG MINDFULNESS, SELF-COMPASSION, AND BULLYING IN EARLY ADOLESCENCE

Bullying is defined as a particular kind of aggression that involves power imbalance and repeated intentionally harmful behavior directed toward another person. The negative effects of bullying include school dissatisfaction, depressive symptoms, and elevated risk of suicide attempts. Due to the negative effects of bullying, researchers continue to test factors associated with bullying. The purpose of this study was to explore the relationships among mindfulness, self-compassion, bullying perpetration, and bullying victimization. It was hypothesized that mindfulness and self-compassion would be significantly negatively associated with bullying perpetration and bullying victimization in middle school youth. One hundred and eighty-two 7<sup>th</sup> and 8<sup>th</sup> grade students completed pretest and posttest surveys. Multiple linear regression analyses were conducted in SPSS to examine associations among mindfulness, self-compassion, bullying perpetration, and bullying victimization in middle school youth. Findings demonstrated that mindfulness was significantly negatively associated with bullying perpetration and victimization, such that more mindful youth were less likely to bully and be victims of bullying. Results also demonstrated that self-compassion was significantly negatively associated with bullying victimization, indicating more self-compassionate youth were less likely to be victims of bullying. These results highlight two potential protective factors against bullying perpetration and victimization. Next steps include investigating these relationships longitudinally and understanding implications for prevention and intervention work.

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## **Chapter 1: Introduction**

### **Bullying and Peer Victimization**

Bullying and peer victimization are major concerns for students, families, and school personnel throughout the world (Hong & Espelage, 2012). Bullying is defined as a particular kind of aggression that involves power imbalance and repeated intentionally harmful behavior directed toward another person (Cuadrado-Gordillo, 2012). Bullying can take various forms including physical, relational, and isolational. Physical bullying is a direct form and involves hitting and pushing whereas relational bullying is an indirect form that incorporates gossiping (Wang, Iannotti, & Nansel, 2009). Isolational bullying is also an indirect form and involves social exclusion. The prevalence of bullying increases in elementary school, peaks during middle school, and begins to decline in high school (O'Brennan, Bradshaw, & Sawyer, 2009). Studies indicate that 30% of students are affected by bullying every month (Bradshaw & Johnson, 2011). In a study with 24,345 students from 4th to 12th grade, O'Brennan and colleagues (2009) demonstrated that more than 36% of students are frequently involved in bullying as victims, bullies, or as a bully/victim.

The majority of bullying behaviors occur within the school context (Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007). Espelage and Swearer (2003) used Bronfenbrenner's ecological theory as a framework to investigate the factors related to bullying behavior and victimization within the educational context, and found that both individual (e.g., older age) and environmental (e.g., lower socio-economic status) factors are associated with bullying (Hong & Espelage, 2012). Espelage and Swearer (2003) explored students' interpretation of school climate (i.e. acceptance of aggression) and found that school climate impacted students' beliefs

about bullying and violence via adult role modeling and school professionals' disciplinary practices (e.g., positive disciplinary actions).

Serious physical and psychological consequences often result from bullying. Peer victimization has been shown to negatively influence emotion regulation in youth (Hong & Espelage, 2012). Galand and Hospel (2013) found that peer victimization negatively affected 7<sup>th</sup> and 8<sup>th</sup> grade students' school satisfaction and academic self-efficacy. Researchers in Australia and Switzerland investigated the consequences of traditional and electronic bullying, involving the use of Internet, social networking sites, or cell phones, with adolescent participants and data indicated that being a bully-victim, bully, electronic bully, and cyber-victim were significantly associated with depressive symptoms (Perren, Dooley, Shaw, & Cross, 2010). Another study demonstrated that students who experienced peer victimization were at an increased risk for reporting somatic symptoms (e.g. headaches, aches and pains, etc.), feelings of anxiousness, and posttraumatic stress responses in contrast to non-victimized peers (Stickley et al., 2013). Victims of verbal, relational, and physical bullying have been associated with elevated risks of suicidal ideation and victims of verbal and relational bullying were associated with an increased risk for attempting suicide (Yen, Liu, Yang, & Hu, 2015).

To date, little research has explored associations between bullying and protective factors associated with positive psychological functioning. Among the exceptions are Duggins and colleagues (2016) investigation of protective factors related to school bullying in middle and high school. Results indicated that family connectedness, feeling supported and encouraged by parents, was a protective factor for reacting aggressively after being victimized at school. Findings from another study demonstrated that student connectedness and parent engagement were protective factors for internalizing problems associated with peer victimization (Morin,

Bradshaw, & Berg, 2015). Gower and colleagues (2015) investigated the role of school environment and intrapersonal factors of bullying and demonstrated that schools with students who displayed high levels of internal assets (i.e. social competency and positive identity) demonstrated less bullying perpetration and victimization. Two additional internal assets that may be associated with bullying in schools are mindfulness and self-compassion.

### **Mindfulness**

Interest in mindfulness training and practice has emerged in Western countries over the past two decades (Semple & Burke, 2012). Mindfulness was originally developed in the Eastern world and is now considered a psychological construct in the United States (Burke, 2010). Mindfulness involves acceptance of the present moment without judgment and intentionally becoming attune to thoughts and feelings as they arise (Tan & Martin, 2016). Being mindful facilitates the separation from a habitual mindset and learning to observe and interact with one's thoughts. During the process of becoming more mindful, individuals shift from habitual thinking to reflection and contemplation.

According to Jon Kabat-Zinn (1994):

Mindfulness has been called the heart of Buddhist meditation. Fundamentally, mindfulness is a simple concept. Its power lies in its practice and its applications. Mindfulness means paying attention in a particular way: on purpose, in the present moment and nonjudgmentally. This kind of attention nurtures great awareness, clarity, and acceptance of present-moment reality. It wakes us up to the fact that our lives unfold only in moments. If we are not fully present for many of those moments, we may not only miss what is most valuable in our lives but also fail to realize the richness and the depth of our possibilities for growth and transformation. (p. 4)

Rather than focusing on the content of thoughts and trying to change them, mindfulness emphasizes the process of thinking and becoming aware of one's thoughts in a non-judgmental way (Semple & Burke, 2012). Mindfulness fosters an attitude of acceptance and openness to the present moment experience through self-regulation of awareness (Bishop et al., 2004). Mindfulness can be viewed as the middle ground between ruminating on thoughts and avoiding painful stories and emotions (Barnard & Curry, 2011).

Brown and Ryan (2003) found that adult mindfulness practitioners exhibited increased levels of self-awareness in comparison to individuals who were not trained in mindfulness. Findings indicated that state mindfulness was significantly associated with increased levels of autonomy as well as more day-to-day experiences of pleasant affect (Brown & Ryan, 2003). In another study, mindfulness' role in predicting well-being (i.e., quality of life) in older adults was examined. Here, research demonstrated that participants with higher levels of trait mindfulness were significantly more likely to report greater quality of life and significantly less likely to report depressive symptoms (Fiocco & Mallya, 2015).

Much less research has been conducted linking mindfulness to child and adolescent health and well-being (Semple & Burke, 2012). Some have found that mindfulness may be one effective practice for directing and enhancing child and adolescent emotion regulation, self-compassion, and awareness to stay connected to the present moment (Neff & Germer, 2013; Schonert-Reichl & Lawlor, 2010). Additionally, Bluth and colleagues (2016) examined the feasibility of a mindfulness program, Learning to BREATHE, with at-risk high school students and found that high school participants felt the program was valuable, and the mindfulness curriculum helped them feel safe, relaxed, and less stressed (Bluth et al., 2016). Studies have also been shown that mindfulness training increases resilience and well-being for children and



adolescents through a sense of perceptiveness, self-efficacy, and self-understanding (Semple & Burke, 2012). Other research has tested the effectiveness of “the Mindfulness Education” program that was instructed by trained teachers to 4<sup>th</sup> through 7<sup>th</sup> graders and demonstrated teacher-reported student improvement in social emotional competence for students who were exposed to ME program curriculum. Here, pre- and early adolescents, who participated in the program, experienced significant increases in optimism in comparison to the pre- and early adolescents in the control group (Schonert-Reichl & Lawlor, 2010). Another school-based study conducted by Mendelson and colleagues (2010) evaluated mindfulness practice and demonstrated that students who were exposed to mindfulness experienced a decrease in persistent worries and involuntary stress.

Associations between mindfulness and adolescents’ self-regulation, self-understanding, and compassion for others suggest that mindfulness may be associated with less bullying behavior in schools. Students who feel relaxed, safe, and less stressed may be less likely to bully because they experience inner strength and inner peace that ultimately contributes to interacting with peers in peaceful ways. More mindful youth may be less inclined to bully because they are more likely to see the positive and strengths in others, rather than the deficits. More mindful youth have also been shown to be more self-regulated and better able to control their impulses, which may contribute to more mindful reactions to being bullied rather than reacting aggressively. Mindfulness is associated with improving adolescents’ quality of life and reducing experiences with depression, anxiety, and dysfunctional attitudes (Chambers et al., 2015). Therefore, mindfulness potentially provides the avenue necessary for adolescents to feel centered, nurtured, and understanding of themselves and fellow peers at school. By understanding self and others, adolescents may begin to interact with their thoughts and emotions

with awareness and view peers non-judgmentally. Adolescents who take a nonjudgmental stance (i.e. observe internal and external experiences and withhold judgement) may be less likely to bully others and/or may feel compassionate toward bullies, rather than retaliate. In short, there are multiple explanations for a potential negative association between mindfulness and bullying victimization. Future longitudinal research should test the directionality of these associations and whether mediating variables explain associations.

### **Self-Compassion**

Similar to mindfulness, the historical roots of self-compassion originate from the Eastern philosophy of Buddhism. Self-compassion involves being vulnerable to suffering with a sense of non-judgmental understanding (Barnard & Curry, 2011). Also similar to mindfulness, self-compassion incorporates balanced awareness and self-kindness (Bluth & Blanton, 2014). There are three components related to self-compassion. First, Germer and Neff (2013) explained that self-kindness involves self-understanding, especially during times of grief, failure, or feelings of inadequacy. Second, common humanity acknowledges that every individual is a part of the greater human experience. Lastly, mindfulness creates balanced awareness, perspective-taking, and assists individuals in gaining clarity and insight to become aware of painful emotions without avoidance (Germer & Neff, 2013).

Studies have shown that individuals who display more self-compassion experience greater happiness, social connectedness, emotional intelligence, and less fear of failure (Barnard & Curry, 2011). Other research shows that participants with higher levels of self-compassion reported more willingness to help someone in need (Welp & Brown, 2013). In the adolescent literature, research reveals that adolescents who participated in a mindful self-compassion program exhibited significantly higher levels of self-compassion and mindfulness and

significantly lower levels of anxiety, depression, and perceived stress in contrast to the waitlist group (Bluth, Gaylord, Campo, Mullarkey, & Hobbs, 2016). Bluth and Blanton (2015) found that self-compassion was significantly positively related to life satisfaction dimension of well-being and significantly negatively related to perceived stress dimension of well-being.

Self-compassion, a pathway to well-being, may act as protective shield for students who are being bullied. Consequently, students who believe they are not alone in their bullying experience (i.e. common humanity element of self-compassion) and are understanding of themselves despite feeling inadequate are potentially not as impacted by bullying. Self-compassionate youth may be more likely to recognize that life difficulties (e.g. being bullied) are part of the process and that acknowledging these challenges will help them grow and strengthen who they are. Students who have lower levels of self-compassion may be more self-critical and therefore more critical of others to make themselves feel better, eventually influencing students to bully peers. It is also possible that students with less self-compassion are unable to recognize that suffering is a shared human experience, and subsequently, treat others poorly because they feel alone in their suffering or feelings of insufficiency. In summary, self-compassion may be negatively associated with bullying victimization for a variety of reasons. Future research should test the direction and mechanisms responsible (i.e., mediators) for these associations.

### **Conceptual Overlap and Distinctions between Mindfulness and Self-Compassion**

It should be noted that mindfulness and self-compassion are conceptually related. For example, Neff and Germer (2013) consider mindfulness to be one aspect of self-compassion and that promoting self-compassion and loving-kindness through their Mindful Self-Compassion (MSC) program would lead to enhanced mindfulness. Findings demonstrated significant increases in self-compassion and mindfulness, and these increases were sustained at the six

month period following program completion (Neff & Germer, 2013). Similarly, Birnie and colleagues (2010) investigated self-compassion and mindfulness in the context of conflicting situations. Following eight weeks of 90 minute mindfulness sessions, undergraduate students reported increases in perspective taking, self-compassion, and mindfulness along with decreases in mood disturbance and stress responses (Birnie, Speca, & Carlson, 2010).

Although related, Neff (2003) argues that mindfulness is a distinct component of self-compassion that influences and enhances other important aspects of self-compassion. For example, mindfulness may create the mental distance necessary to foster self-kindness and common humanity (Neff, 2003). Others have examined mediational associations whereby self-compassion mediates associations between mindfulness and dimensions of adolescent well-being (Bluth & Blanton, 2014). Therefore, it is unclear the degree to which mindfulness and self-compassion overlap. However, potential shared conceptual overlap and the potential lack of discriminant validity can result in challenges to the interpretation of study results, especially when mindfulness is included as one sub-scale in measures of self-compassion (Neff, 2003).

## **Chapter 2: The Current Study**

The purpose of this study was to better understand the association between mindfulness and bullying and the association between self-compassion and bullying by testing relationships among mindfulness, self-compassion, bullying perpetration, and bullying victimization.

Previous research illustrates the need to address bullying behavior during adolescence because of its damaging effects on emotional, physical, and mental health. Therefore, testing associations between mindfulness and self-compassion as potential protective factors against bullying perpetration and victimization are of research interest.

### **Hypotheses**

The study had four hypotheses. Hypothesis one was that mindfulness would be significantly associated with bullying perpetration in middle school youth such that higher levels of mindfulness would be associated with less bullying. Hypothesis two was that mindfulness would be significantly associated with bullying victimization in middle school youth such that higher levels of mindfulness would be associated with less victimization. Hypothesis three was that self-compassion would be significantly associated with bullying perpetration in middle school youth such that higher levels of self-compassion would be associated with less bullying. Hypothesis four was that self-compassion would be significantly associated with bullying victimization in middle school youth such that higher levels of self-compassion would be associated with less victimization.

### **Methods**

#### ***Participants***

Participants were 182, 7<sup>th</sup> and 8<sup>th</sup> grade students (12-14 years old) from one urban and one rural Colorado school participating in a school-based mindful awareness intervention. Students

in the urban Colorado school (n = 101) received the bullying prevention program, whereas students in rural Colorado school (n = 81) were in the wait-list condition group. Participants were representative of their district profile (50% female, 38% Caucasian, 32% Hispanic/Latino, 11% African-American, 18% mixed/bi-racial, and 58% received free or reduced lunch).

### ***Procedures***

Trained research staff described the study to students. Consent forms were sent home for parents to complete and return within one week. Participants were then invited to provide their own assent to complete pretest and posttest surveys which each took approximately 1 hour to complete. Participants not returning parental permission or completing child assent forms received the intervention but did not participate in survey assessments. The 208-item pretest and posttest survey included measures of mindfulness, self-compassion, bullying behavior, life meaning, and executive function skills. Pretest data collection began October 2013 with posttest completed in May 2014.

The curriculum spanned 11 sessions and was implemented to 7<sup>th</sup> and 8<sup>th</sup> grade middle school students at a charter school in Denver, Colorado. The program curriculum incorporated aspects of neuroscience, mindfulness, self-compassion, executive function, and social-emotional learning. Trained facilitators implemented the curriculum sessions, and each curriculum lesson was 35 minutes (6.42 hours/student). Thus, total participant time resulted in 8.42 hours. Students in the rural Colorado school also participated in pretest and posttest surveys, however, did not receive the intervention. Data cleaning, entry, coding, and analyses were completed in June 2014. All study procedures were approved by Colorado State University Institutional Review Board.

## **Measures**

**Mindfulness.** The 14-item *Mindfulness Awareness Scale-Adolescent Version* was used to assess mindfulness (Brown, West, Loverich, & Biegel, 2011). Self-report items included statements regarding adolescents' ability to be mindful in the present moment. Sample items include "I find myself preoccupied with the future or the past," "I find it difficult to stay focused on what's happening in the present," "I tend not to notice feelings of physical tension or discomfort until they really grab my attention," "I find myself doing things without paying attention." Items are rated from 0 (*almost never*) to 5 (*almost always*). A single mindfulness score was determined by calculating the mean of the 14-item scale and reverse scored such that higher scores represent greater mindfulness. Test-retest reliability over a 3- to 4- week period has been demonstrated to be good (.79; Brown et al., 2011). Chronbach alpha coefficient for this sample was good ( $\alpha = .89$ ). The validity of the Mindfulness Awareness Scale-Adolescent Version was established with 14 to 18 year olds (Brown, West, Loverich, & Biegel, 2011).

**Self-Compassion.** Self-compassion was measured using the 26-item *Self-Compassion Scale-Adolescents* (Neff, 2003). Items consisted of statements regarding times when adolescents exhibited self-compassion or a lack of self-compassion. Sample items include "I'm kind to myself when I'm having difficulties or feeling bad," "When I am going through a hard time, I give myself the caring and tenderness I need," "When I'm feeling down, I tend to feel like most other teens are probably happier than I am," "When times are really difficult, I tend to be tough on myself." These items are rated from 0 (*almost never*) to 4 (*almost always*). At pretest items representing self-compassion were positively associated with items representing lack of self-compassion. Thus, it appears that students were not able to cognitively switch back and forth between positively and negatively phrased items. At posttest, positively and negatively phrased

items were moved to separate survey sections. Positively and negatively phrased items became negatively correlated, suggesting that this was in fact the case. Posttest items representing lack of self-compassion were reversed scored such that higher scores represented greater self-compassion. Posttest scale Chronbach alpha was good ( $\alpha = .91$ ). Previous studies have also established excellent test-retest reliability for this measure (Neff, 2003). In order to enhance discriminant validity between the SCSA and the MAAS, all items from the “mindfulness” scale were removed.

**Bullying Behavior.** The *Adolescent Peer Relations Instrument* (Parada, 2000) and *Cyberbullying and Online Aggression Survey* (Hinduja & Patchin, 2008) were used as self-reports of bullying behaviors and victimization experiences. The *Adolescent Peer Relations Instrument* is a 36-item measure of both bullying (18 items) and victimization (18 items) in school within the past year. Items are rated from 0 (*never*) to 5 (*everyday*). Bullying consisted of three subscales; physical, relational and isolational, each represented by 6 items. Victimization consisted of three subscales; physical, relational, and isolational, each represented by 6 items. Electronic bully/victimization was measured with the *Cyberbullying and Online Aggression Survey*. Nine items assessed electronic victimization (“In the last 30 days, has anyone posted anything about you online that you didn’t want others to see?”). Three items assessed electronic bullying (“In the last 30 days, have you posted something online about someone else to make others laugh?”). Mean scale scores were computed for the 21-item bullying ( $\alpha = .88$ ) and 27-item victimization ( $\alpha = .96$ ) scales.

### **Analyses**

Analyses were conducted on posttest data because of students’ inability to cognitively switch back and forth between positively and negatively phrased SCSA items. The first step in



data analyses was to generate descriptive statistics in order to examine distributional properties. Bivariate correlations among mindfulness, self-compassion, bullying perpetration, and bullying victimization were then investigated. Third, multiple linear regression was used to test associations among the independent variables of mindfulness and self-compassion with the dependent variables of bullying perpetration and victimization, while covarying for sex, ethnicity, grades, and school. For both multiple linear regression models, two steps were modelled. Step one included the covariates with step two adding self-compassion and mindfulness to the model.

Covariates were chosen for a few reasons. First, school and ethnicity were covariates to account for the two different schools (i.e. intervention group and control group) in which data was collected. There was a wider range of ethnic diversity present in the intervention group. Sex and grades were covariates to account for different levels of bullying that may occur based on whether students are male or female as well as the grades they earned in school.

## **Chapter 3: Results**

### **Preliminary Analysis**

The sample was comprised of 49.7% boys and 50.3% girls along with 55.5% of the sample representing the urban school and 45.5% representing the rural school in Colorado. Table 1 presents means and standard deviations for variables of interest and bivariate correlations among variables. Mindfulness and self-compassion were significantly positively correlated meaning greater mindfulness was associated with greater self-compassion. Mindfulness was significantly negatively correlated with bullying perpetration such that greater mindfulness was associated with less bullying perpetration. Mindfulness was also significantly negatively associated with bullying victimization meaning participants who reported higher levels of mindfulness had significantly lower scores on the measure of bullying victimization. According to Cohen (1998) the strength of the association can be considered medium. Self-compassion and bullying perpetration were significantly negatively associated such that greater self-compassion was associated with less bullying perpetration. Additionally, the correlation between self-compassion and bullying victimization was significant and negative. Here, participants who reported higher levels of self-compassion had significantly lower scores on the measure of bullying perpetration and victimization. According to Cohen (1998) the strength of the association can be considered small.

### **Associations between Mindfulness, Self-Compassion, and Bullying Perpetration**

Table 2 illustrates multiple regression models regressing bullying perpetration onto mindfulness and self-compassion (Step 2) after modelling covariates (Step 1). Among the covariates, sex was significantly associated with bullying perpetration such that boys were significantly more likely to report perpetration of bullying. The total amount of variance

accounted for in this step was 11.8%. After including mindfulness and self-compassion in Step 2, mindfulness was significantly negatively associated with bullying perpetration, such that more mindful youth were less likely to bully. This step accounted for an additional 13.8% of variance.

### **Associations between Mindfulness, Self-Compassion and Bullying Victimization**

Table 3 illustrates multiple regression models regressing bullying victimization onto mindfulness and self-compassion (Step 2) after including covariates (Step 1). None of the covariates were significantly associated with bullying victimization. The total amount of variance accounted for in this step was 5.9%. After including mindfulness and self-compassion in Step 2, mindfulness was significantly negatively associated with bullying victimization, such that more mindful youth were less likely to be victims of bullying. Self-compassion was significantly negatively associated with bullying victimization, such that more self-compassionate youth were less likely to be victims of bullying. Step 2 accounted for an additional 16.2% of variance.

## Chapter 4: Discussion

Mindfulness and self-compassion are newly explored constructs in the adolescent literature. Mindfulness and self-compassion are of interest because they have been shown to be associated with adolescents' perceived stress and increase adolescents' sense of well-being, two areas impacted by bullying (Bluth, Gaylord, Campo, Mullarkey, & Hobbs, 2016; Semple & Burke, 2012). Current research has not directly tested relationships between mindfulness, self-compassion, bullying perpetration, and bullying victimization. Thus, the current study contributes to the literature in that it is the first to test associations among mindfulness, self-compassion, bullying, and victimization during early adolescence.

Study hypotheses were partially supported. Hypothesis 1, which was that mindfulness would be significantly negatively associated with bullying perpetration in middle school youth was confirmed. Hypothesis 2, which was that mindfulness would be significantly negatively associated with bullying victimization in middle school youth, was confirmed. Hypothesis 3, which was that self-compassion would be significantly negatively associated with bullying perpetration, was not supported. Hypothesis 4, which was that self-compassion would be significantly negatively associated with bullying victimization, was confirmed such that those who reported greater victimization were less self-compassionate. Thus, this paper extends what we currently know about mindfulness and self-compassion and suggests that they are associated with bullying perpetration and victimization. However, due to the cross-sectional nature of the data, it remains unclear the direction of these associations.

It is possible that mindfulness contributes to fewer instances of bullying perpetration. Here, mindfulness may be negatively associated with bullying perpetration because the more self-aware an adolescent is the less likely he or she will react in a hostile way toward another

peer. Additionally, a more mindful adolescent might be less likely to bully others because their thoughts are accepting of peers instead of judgmental. Similar to thoughts, emotions also play a significant role when youth are bullying others. Therefore, mindful youth may be more likely to recognize that emotions, like thoughts, come and go and that thoughts and feelings are interconnected. Tan and Martin (2016) likewise discovered that mindfulness involves intentionally becoming aware of emotions and thoughts, which ultimately leads to a greater understanding of the present moment experience. A bully who begins to pay attention to the interrelationship of his or her thoughts and emotions may start to notice the pattern behind why he or she bullies and in the future prevent him or her from bullying peers.

The negative association between mindfulness and bullying victimization may be due to more mindful adolescents paying more attention to their environments and thus being less susceptible to being bullied. Conversely, adolescents with lower levels of mindfulness may experience more negative emotions that they have a difficult time effectively communicating about to peers which may also increase adolescents' susceptibility to bullying victimization. Mindful youth may be more likely to pay attention to their thoughts, inner self-talk, and not become carried away by these thoughts. Similarly, Semple & Burke (2012) found that mindfulness training increases resilience in youth through a sense self-understanding and personal insight. By focusing on thoughts and then letting them go, an adolescent may become less concerned with what a bully did to him or her or what a bully said about him or her.

It is also possible that bullying perpetration and victimization might lead to decreased mindfulness and self-compassion. Bullying perpetration may contribute to adolescent inattentiveness to their internal and external experiences (i.e., mindfulness). It is also possible that bullying perpetration may be causing the bully to experience stress while simultaneously be

unaware of what is triggering the body's stress response. As a result, the bully may be less mindful and experience more unpleasant thoughts and feelings. Bullying victimization may also create negative thoughts and emotions in adolescents, consequently, causing them to experience chronic stress, feelings of self-doubt, and less mindfulness (i.e. an unbalanced approach to negative emotions). Researchers discovered that bullying victimization is associated with an increased risk of depression, suicidal ideation, and somatic symptoms (Stickley et al., 2013; Yen, Liu, & Hu, 2015). Bullying victimization may increase frustration and self-criticism in adolescents who are being bullied, and therefore, decrease their compassion for others and hope for the future. Being victimized might also decrease self-compassion, potentially through decreasing feelings of self-worth. Future research should test the directionality of the associations among mindfulness, self-compassion, bullying perpetration, and bullying victimization.

It is possible that self-compassion is negatively associated with bullying victimization because the less self-compassionate adolescents are the less understanding toward themselves during distress, and as a result be more likely to feel frustrated and report being bullied at school. Additionally, self-compassion may be negatively associated with bullying victimization because the less an adolescent views his or her experience of being bullied as a common experience among fellow peers, the more likely he or she will report being bullied at school. Being a victim of bullying might predict future decreases in self-compassion. After being bullied, some youth may be likely to believe that they brought this on themselves and as a result feel more self-blame and self-criticism. A youth who is bullied may also feel alone in his or her experience and consequently feel less self-compassionate. Bullying victimization may contribute to adolescents becoming agitated and stressed regarding feelings of inadequacy (i.e., self-compassion).

Potential reasons for a lack of association between self-compassion and bullying include that self-compassion is focused on self-kindness and common humanity which may be more closely related to one's response to external behavior, such as bullying victimization, rather than changing one's own external behavior (e.g. bullying perpetration). Self-compassion may strictly be a way for adolescents to cope with being victimized through loving kindness toward oneself and recognizing that being bullied is a universal problem. During times of grief or feeling insufficient, self-compassion has been shown to encompass self-understanding (Germer & Neff, 2013). It is possible that more self-compassionate youth are focused on personal self-growth rather than altering their bullying behavior. Adolescents with lower levels of self-compassion may experience self-doubt that feels debilitating to act on anything behavioral related (i.e. bullying perpetration).

The current study had notable strengths including the diverse sample based on ethnicity, socio-economic status, and region. This diverse sample contributes to the external validity of the study. Consequently, study results may be generalizable across ethnicity, socio-economic status, and a lesser extent to region. Another study strength was the inclusion of both mindfulness and self-compassion to simultaneously test associations with bullying perpetration and victimization. This is a strength because mindfulness and self-compassion are conceptually related constructs and including them both allows for a better determination of the unique variance contributed to associations with bullying perpetration and victimization.

Study results should be considered in light of limitations. First, the study sample size was small resulting in limited power to detect significant associations. The study also utilized self-report surveys for data collection which may have introduced bias in the survey responses. Less mindful and self-compassionate youth may be particularly poor reporters of their own

mindfulness and self-compassion. Another validity issue is social desirability which may influence an adolescent to report higher levels of mindfulness and self-compassion and lower levels of bullying in order to be viewed favorably by others.

A third issue is that self-report measures of mindfulness may not be measuring mindfulness, rather they may be measuring similar constructs such as self-regulation. Further, the MAAS-A has been validated for 14-18 year old adolescents, however, the study's sample consisted of 12-13 year old students. As a result, adolescents may have misinterpreted certain items from the mindfulness section of the survey based on wording or lack of conceptual understanding. Finally, post-test data was used in data analysis because at pretest students were unable to make the cognitive switch between negatively and positively phrased items on the self-compassion scale. This is a problem because the youth received an intervention before posttest, potentially altering mindfulness, self-compassion, bullying perpetration, and bullying victimization. To address this limitation, "program" was included as a covariate which may have controlled for the variance explained by the intervention.

Study findings may have implications for adolescent bullying prevention and intervention programs. However, again, future research is needed to contribute to a better understanding of directionality of associations. Dependent upon whether mindfulness and self-compassion predict later bullying behaviors, one potential direction for researchers is to focus bullying prevention programs on teaching positive psychological constructs, such as self-compassion and mindfulness. Teachers could be trained to implement curriculum that focuses on mindfulness and self-compassion to classrooms. Another option could be to bring practitioners from the community into schools to teach mindfulness and self-compassion to adolescents.



Several considerations should be taken into account when developing mindfulness-based bullying prevention programs. First, student age will need to be considered, particularly how the underlying components and concepts of mindfulness and self-compassion are taught in a developmentally appropriate sequence. Here, it is important to consider at which age students can be reasonably taught abstract concepts such as non-judgment and common humanity and to determine engaging ways to teach mindfulness and self-compassion to students of different age groups. Furthermore, prevention and intervention scientists are encouraged to brainstorm how much, if any, space in the curriculum should be dedicated to addressing specific bullying behaviors and having students recall personal experiences.

In conclusion, study results suggest associations between bullying and victimization and mindfulness and self-compassion in a diverse sample of early adolescents. Findings add to previous research demonstrating that bullying and victimization are associated with increased negative psychological and health outcomes by demonstrating that these behaviors are also associated with less positive psychosocial health. Study limitations include the relatively small sample size, reliance on self-report surveys, and cross-sectional design. However, should future research find that bullying and victimization predict later mindfulness and self-compassion, the implication would be for future research to develop and test bullying prevention programs which target mindfulness and self-compassion as mediators.

## Tables

Table 1  
*Descriptive Statistics for Independent and Dependent Variables (N = 182)*

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Variables	Mean	SD	1	2	3
1) Mindfulness	3.82	.90			
2) Self-Compassion	2.04	.77	.39*		
3) Bullying Perpetration	.55	.63	-.40**	-.17*	
4) Bullying Victimization	.55	.72	-.38**	-.32**	.26**

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

Table 2

*Multiple Linear Regression Analysis for Associations between Mindfulness, Self-Compassion, and Bullying Perpetration (N = 182)*

Predictor Variables	Bullying Perpetration Total Score			
	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>
Step 1 Covariates				
White	.04	.63	.03	.07
Black	.21	.59	.12	.35
Latino	.31	.59	.23	.52
Other	.52	.59	.28	.89
School	-.06	.25	-.04	-.23
Sex	-.24	.10	-.19*	-2.35
Grades	-.02	.08	-.02	-.25
Step 2 Independent Variables				
Self-Compassion	-.01	.07	-.01	-.11
Mindfulness	-.26	.06	-.38**	-4.39

*Note.* Total amount of variance accounted for in Step 1 = 11.8%

Total amount of variance accounted for in Step 2 = 13.8%

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

Table 3  
*Multiple Linear Regression Analysis for Associations between Mindfulness, Self-Compassion, and Bullying Victimization (N = 182)*

Predictor Variables	Bullying Victimization Total Score			
	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>
Step 1 Covariates				
White	1.08	.72	.75	1.50
Black	.84	.67	.44	1.24
Latino	.75	.67	.50	1.11
Other	.92	.67	.44	1.36
School	.41	.28	.29	1.46
Sex	-.01	.12	-.00	-.04
Grades	.07	.09	.07	.77
Step 2 Independent Variables				
Self-Compassion	-.19	.08	-.21*	-2.43
Mindfulness	-.25	.07	-.32**	-3.65

*Note.* Total amount of variance accounted for in Step 1 = 5.9%

Total amount of variance accounted for in Step 2 = 16.2%

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

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