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# PERSON-LEVEL PREDICTORS OF BULLYING AND BYSTANDER BEHAVIORS OF MIDDLE SCHOOL STUDENTS

by

## TODD J. DOLLAR

## **DISSERTATION**

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

# **DOCTOR OF PHILOSOPHY**

2016

MAJOR: EDUCATIONAL PSYCHOLOGY

Approved By:

Advisor	Date



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# **DEDICATION**

For Sophia, Evan, and Jason.

You are my inspiration and joy.



#### **ACKNOWLEDGEMENTS**

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#### **CHAPTER 1 INTRODUCTION**

In recent years, bullying has pervaded popular culture in the form of news, literature, television, movies, and other media as a source of concern, interest, and even entertainment. However, bullying is not a new phenomenon (Hymel & Swearer, 2015). In fact, bullying has been described and documented in literature (e.g., Oliver Twist) (Hymel & Swearer, 2015) and newspaper accounts (Koo, 2007) for almost two centuries (Hymel & Swearer, 2015; Koo, 2007). In a review of the history of bullying, Koo (2007) puts forth numerous examples of sporadic incidents that can be interpreted, or explicitly described, as bullying dating back to the mid 18<sup>th</sup> century. And while many were cognizant of bullying and victimization in the past, empirical study did not commence until the early 1970s in Scandinavia (Olweus, 1993) and the 1990s in the United States (Hymel & Swearer, 2015). Consequently, the ensuing bully/victim literature has demonstrated serious, adverse behavioral and psychological consequences for bullies, victims, and bystanders (i.e., witnesses).

Overall, prevalence rates regarding bullying vary widely across studies and countries (Nansel, Craig, Overpeck, Saluja, Ruan, et al., 2004). However, the most widely cited studies suggest that approximately 30% of children and adolescents experience bullying with moderate frequency across the United States (Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001). According to Nansel et al. (2001), approximately13% of youth experience bullying as bullies, while 10% experience bullying as victims, and 6.3% as bully-victims. And while prevalence rates regarding bystander behavior are sparse and varied, research suggests that bystanders are present in most (85%) bullying incidents (Atlas & Pepler, 1998), and bystanders influence bullying behaviors (Salmivalli, Voeten, & Poskiparta, 2011).

Bullying can negatively affect victims as well as bullies and bystanders socially, academically, and psychologically (Rivers & Noret, 2013; Sourander, Brunstein-Klomek, Ikonen, Lindroos, Luntamo, Koskelainen, Ristkari, and Helenius, 2010). Victims of bullying are at greater risk than bullies and non-bullied students for experiencing internalizing problems such as depression, anxiety, and suicidal ideation (Kelly, Newton, Stapinski, Slade, Barrett, Conrod, & Teesson, 2015). Bully perpetrators are at a greater risk than victims for externalizing problems such as tobacco and alcohol use, and antisocial (Kelly et al., 2015) and violent behaviors (Barker, Arseneault, Brendgen, Fontaine, and Maughan, 2008) when compared to victims and non-bullied children. With the exception of alcohol use, children and adolescents who experience bullying as both bullies and victims (e.g., the bully-victim group) are at even greater risk than those who experience bullying as just a bully, victim, or non-bullied individual (Kelly et al., 2015). Furthermore, a growing body of research suggests that bystanders can suffer adverse outcomes as well (Rivers & Noret, 2013). For many, the aforementioned consequences are often serious and may extend into adulthood (McDougall & Vaillancourt, 2015).

Although bullying by itself is unlikely to cause youth to perpetrate violence or contemplate, attempt, and/or commit suicide (Hinduja & Patchin, 2010), the experience of bullying may exacerbate the likelihood of the abovementioned behaviors for at-risk youth (Hinduja & Patchin, 2010; McDougall & Vaillancourt, 2015). Indeed, children and adolescents who think about, attempt, and/or commit suicide likely suffer from other psychopathologies (Bonanno & Hymel, 2010) including internalizing problems such as depression and anxiety and externalizing problems such as hyperactivity, impulsivity, conduct problems, and use/abuse of tobacco and intoxicants (Kelly et al., 2015). A growing body of research continues to support the

postulation that youth who commit suicide after experiencing bullying often have other socioemotional factors in their lives that put them at greater risk (Bonanno & Hymel, 2010).

#### **Theoretical Framework**

Bullying does not take place in a vacuum (Swearer & Espelage, 2004, 2011). Children's social ecologies have strong influence and help dictate whether or not children will experience bullying either as bullies, victims, bully-victims, and/or bystanders (Swearer & Espelage, 2004, 2011). Swearer and Espelage (2011) purport that bullying is "...a complex set of antecedents, behaviors, and consequences. The reasons why children and adolescents bully one another are complex, multiply-determined, and differentially reinforced " (p. 3). According to Mash and Dozois (2003), the need for a multi-theoretical approach to studying "...the complexities, reciprocal influences, and divergent pathways that current models and research have identified as crucial for understanding..." (p. 7) the multidimensional nature of the human experience (Mash & Dozois, 2003; Swearer & Hymel, 2015) including the person- and relational-level factors involved with bullying (Ettekal, Kochenderfer-Ladd, and Ladd, 2015). Therefore, the use of a multi-theoretical approach is essential in order to better capture the complexities involved in the phenomenon of bullying (Olweus, 1993; Swearer & Espelage, 2011; Mash & Dozois, 2003).

Bioecological Model. In the 1970's, Bronfenbrenner (1974, 1977, 1979) formulated his ecological model, which put forth the notion that human beings develop within the contexts of culture and history. In order to understand human development, one must consider the context in which it occurs because, as he postulated, development is not universal. Rather, it is variable depending on the environment (e.g., family, peer group, school, neighborhood, greater culture, and point in history). Investigators must consider the complex interplay between nature (e.g., biological) and nurture (e.g., environment) to fully understand the developing child. By

examining phenomena within an ecological framework, only then can investigators begin to understand how events occurring within these systems interact and affect one another and shape the development of children and adolescents and the ecology in which they live (Bronfenbrenner, 1977, 1979). Subsequently, Bronfenbrenner's (1974, 1977, 1979) ecological model was renamed bioecological model to better capture and understand the complex interactions between nature and nurture and how these forces interact and shape development (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Ceci, 1994)

Social cognitive theory. According to Bandura (1986, 1999a), social cognitive theory postulates that individuals are not driven solely by innate mechanisms (i.e., cognitions), nor are they driven solely by external factors (i.e., environment). Instead, individuals function within a model of *triadic reciprocity*. This term explains human functioning as a model in which behavior, cognitions, individual differences, and environmental factors all operate in concert with, and are determinants of, one another. Observational learning is the cornerstone of social cognitive theory. Bandura (1986, 1999a) suggests that individuals learn, not only from their own experiences, but from the experiences of others as well. Social cognitive theory suggests a multidirectional causal pathway within which self-efficacy beliefs function together with goals, expectations, and the environment, that in turn regulates motivation and behavior (Bandura, 1986, 1999a).

#### **Aggression and Bullying**

Bullying and aggression are not synonyms (Hawley, Stump, & Ratliff, 2011), and Dan Olweus made the distinction clear in his pioneering studies (Olweus, 1993). Hawley et al. (2011) caution researchers against using the terms interchangeably. Therefore, in order to avoid "...the jingle fallacy..." (Hawley et al., 2011, p. 104), (which refers to incorrectly using two

psychological constructs interchangeably), researchers need to clearly differentiate aggression and bullying (Hawley et al., 2011).

Aggression has been defined as "...any behavior directed toward another individual that is carried out with the...intent to cause harm...[and] the perpetrator must believe that the behavior will harm the target, and that the target is motivated to avoid the behavior" (Anderson & Bushman, 2002, p.28). Bullying is a subset of aggression and has been defined as "...aggressive behavior or intentional harm doing that is carried out repeatedly and over time in an interpersonal relationship characterized by an actual or perceived imbalance of power or strength" (Olweus & Limber, 2010, p. 125). The three key definitional elements are *intentionality, repetition,* and *power imbalance,* and the above definition is generally accepted and endorsed by most scholars (Hymel & Swearer, 2015) as well as the Centers for Disease Control and Prevention (CDC) (Hamburger, Basile, & Vivolo, 2011) and the National Association of School Psychologists (NASP) (Hymel & Swearer, 2015).

Bullying behavior takes several forms such as verbal bulling (i.e., name-calling, teasing people in a mean way, insulting), social bullying (i.e., telling lies or spreading rumors, humiliation, social exclusion), physical bullying (i.e., hitting, kicking, pinching, pushing, breaking and/or taking belongings) (Solberg & Olweus, 2003; Swearer, Turner, Givens, & Pollack, 2008), and cyberbullying (i.e., harassment via various electronic media) (Bauman, 2011). Individuals can experience bullying as bullies, victims, bully-victims, and/or bystanders (Hymel & Swearer, 2015). Bystanders are individuals (e.g., children or adults) that emit behaviors that either encourage or discourage bullying directly or indirectly (Salmivalli, 1999). Although there is some debate and disagreement on how to best conceptualize and define types

of bullying and participant roles within bully experiences, a consensus is emerging within the bully literature (Bradshaw, 2015).

#### **Person- and Relational-Level Factors**

The abovementioned theories serve as overarching frameworks, from which to ask questions and formulate testable hypotheses regarding bullying and bystander experiences of children and adolescents. Two important considerations within the bullying context are (1) individual attributes, or person-level factors, such as social-cognitive, moral, and emotional processes, and (2) relational-level processes such as peer and teacher influences (Ettekal et al., 2015). The current study will focus on the former.

#### **Person-Level Factors: Demographic Factors**

**Developmental Change.** Considering a developmental perspective, overt aggressive behaviors such as hitting, pushing, and kicking have been observed in children under 12-months-old (Tremblay, Japel, Perusse, McDuff, Boivin, Zoccolillo, & Montplaisir, 1999), and covert aggressive behaviors such as harming others through spreading rumors, damaging others' reputations, and peer rejection (Crick, 1996) have been found in children as young as 3-years-old (Crick, Casas, & Ku, 1999). Although many scholars are skeptical of the claim made by some researchers that behaviors meeting the definitional criteria of bullying (e.g., intentional, repeated, and power imbalance) emerge during the preschool years, research on the different roles of bully participation during the preschool years is ongoing and gaining more support (Camodeca, Caravita, & Coppola, 2015).

While the onset of aggression emerges in toddlerhood (Tremblay et al., 1999), researchers postulate that aggression, and for some children, bullying behaviors, tends to emerge in the preschool years, which is typically around 3- to 5-years-old. (Hanish, Hill, Gosney, Fabes,

& Martin, 2011). Although aggressive behavior begins in toddlerhood and preschool and continues through the elementary and secondary years, the ways in which children understand, conceptualize, and engage in bullying behaviors changes with development (Monks & Smith, 2006).

Despite the occurrence of bullying in the early childhood, most research to date suggests that bullying experiences of children peak during the middle school years (Hymel & Swearer, 2015). Most scholars agree that the aforementioned peak in prevalence is due to children's increased understanding that occurs as part of their development and maturation (Monks & Smith, 2006). Researchers posit that younger children have a more difficult time than older children distinguishing between intentional and non-intentional harm doing (Monks & Smith, 2006), which is an important criterion in bullying (Hymel & Swearer, 2015). Conversely, older children and adolescents have the cognitive capacity to think more abstractly and consider the complex conceptualizations involved in bully experiences (Monks & Smith, 2006). Nevertheless, it is difficult to attribute casual relationships between age and bullying experiences (Monks & Smith, 2006).

Gender. In their review of the literature, Hymel and Swearer (2015) reported that boys and girls engage in all types of bullying behaviors (e.g., verbal, social, physical, and cyber) and experience bullying in every role (e.g., bully, victim, bull-victim, and bystander). And while prevalence rates based on gender are documented in the bully literature, prevalence rates based on gender vary greatly, and sex differences are not supported in all studies (Hymel & Swearer, 2015). Rodkin, Espelage, and Hanish (2015) suggest that bulling is a "...gendered phenomenon..." (p. 317), and gender is an important consideration when trying to determine "Who bullies whom?" (Rodkin & Berger, 2008, p. 473). Researchers suggest that bullying

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takes place within and between genders, and more research is needed to help clarify the incongruent data (Rodkin et al., 2015).

# **Person-Level Factors: Social-Cognitive Processes**

Social goals. Goal attainment is a well-supported variable and construct in aggression (Bandura, 1986, 1999a; Crick & Dodge, 1994; Ettekal et al., 2015; Olweus, 1993) and bullying (Ettekal et al., 2015). Within a social-cognitive framework, social goals motivate behavioral strategies, which are formulated cognitively, subsequently carried out, and evaluated based on the whether or not the behavior was reinforced (e.g., goal attainment) (Bandura, 1986, 1999a; Ojanen, Grönroos, & Salmivalli, 2005). Historically, the ways in which social goals have been conceptualized, operationalized, and measured differs among researchers (Ojanen et al., 2005). However, a consensus is emerging, which supports two broad factors: agentic and communal goals.

**Self-efficacy.** According to Bandura (1986, 1999a), self-efficacy is the foundation of human agency and a core component of social cognitive theory. Self-efficacy is a belief system in which people believe that they can, or cannot, achieve a desired goal or outcome. Moreover, self-efficacy underlies other facets of social cognitive theory such as self-regulation, goal setting, and self-evaluation of one's own performance, which in turn influence motivation, outcome expectations, and self-direction (Bandura, 1986, 1999a).

#### **Person-Level Factors: Moral Processes**

According to Bandura (2002), the self-regulatory mechanisms underlying moral action have to be activated, and there are a number of mechanisms and situations where individuals selectively disengage moral self-sanctions. Selective activation and disengagement of self-regulatory mechanisms governing moral agency allows individuals to engage in actions

discordant with their moral standards in some situations while engaging in behaviors in accordance with their moral standards in other situations. Moral disengagement is activated through several mechanisms: (1) cognitive restructuring; (2) ignoring, minimizing, and/or misconstruing the consequences; (3) displacement and/or diffusion of responsibility; and (4) dehumanizing the victim (Bandura, 2002).

#### **Person-Level Factors: Emotional Processes**

Ettekal et al. (2015) emphasize the importance in considering emotional processes (e.g., emotional understanding and empathy) with regard to the study of bullying and bystander behavior. Empathy has been conceptualized as an affective trait and a cognitive ability (Davis, 1983, Jolliffe & Farrington, 2006a). Empathy, in general, has been found to be a necessary, but not sufficient, component in the development of moral standards as well as prosocial behavior (Jolliffe & Farrington, 2006a). Jolliffe and Farrington (2006a) found that, as empathy increases, offending decreases. Considering the role of empathy is essential to better understand bully-related behaviors and participant roles in bully experiences (Ettekal et al., 2015). Despite the importance in considering emotional processes in bullying, however, little research has been conducted in this area (Ettekal et al., 2015).

#### **Problem Statement**

Over the past four decades, there has been a great deal of empirical interest and research in bullying, which has resulted in a voluminous literature (Hymel & Swearer, 2015). Much of the recent scientific interest in bullying has been spurred by public outcry following a number of highly publicized tragedies, which occurred as a result of bullying as well as other tragedies that have received unprecedented attention from the popular media as well as academia such as the massacre at Columbine High School (Hymel & Swearer, 2015).

And while not all youth who experience bullying are violently assaulted or commit suicide, the documented behavioral and psychological consequences of bullying are serious. Consequently, bully prevention and intervention efforts have become ubiquitous, and nationwide efforts to reduce and, ultimately, prevent bullying are underway (Bradshaw, 2015; Cornell & Limber, 2015, Hymel & Swearer, 2015). However, most prevention and intervention programs have produced mixed results, and few programs have demonstrated effectiveness when subjected to replication attempts and the rigor of peer review (Bradshaw, 2015). Thus, it is imperative to understand the factors that predict bullying in order to facilitate prevention and early intervention efforts to reduce children's experience in bullying as perpetrators, victims, and/or bystanders (Álvarez-García, García, & Núñez, 2015).

There are a number of factors contributing to the slow progress and underwhelming success of bully prevention and intervention efforts. Swearer and Hymel (2015) posit that researchers need to "...take into account the complexities of the human experience, addressing both individual characteristics and history of involvement in bullying, risk and protective factors, and the contexts in which bullying occurs, in order to promote healthier relationships" (p. 344). Better understanding of the determinants that predict bullying and bystander behavior will provide researchers, stake holders, and policy makers with the tools to inform, create, and implement effective policies, prevention and intervention programs, and community efforts to thwart bullying (Ettekal et al., 2015).

Despite a prolific body of research, there are still more questions than answers with regard to bullying and bystander behaviors (Hymel & Swearer, 2015). While there has been a great deal of focus on individual characteristics and social contexts in which bullying occurs, most of the research to date has investigated the aforementioned areas independently (Ettekal et

al., 2015). Research is needed to better understand how multiple variables operate in concert and influence bullying and bystander behaviors (Ettekal et al., 2015).

In particular, more research is needed to determine the ways in which children and adolescents coordinate social-cognitive, moral, and emotional processes, and the association between these person-level factors (e.g., individual) with regard to bullying and bystander behaviors (Ettekal et al., 2015). By understanding how the aforementioned factors interact and affect one another, researchers, practitioners, and policy makers will have a deeper comprehension of the dynamic processes involved with bullying and bystander behavior and be better equipped to develop effective policies and interventions aimed at reducing, and ultimately preventing, the negative consequences for youth who experience bullying as bullies, victims, bully-victims, and/or bystanders (Ettekal et al., 2015).

# **Significance of the Study**

The aim of the proposed research was to examine the ways in which person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) influence bullying and bystander experiences individually and synergistically. By better understanding how these factors predict bullying and bystander experiences individually and in concert, erudite researchers, practitioners, and policy makers will be in a better position to understand, design, and implement effective prevention and intervention strategies and programs. Furthermore, this study contributed to the bully literature by providing a platform, from which additional research questions and hypotheses can be drawn. Recommendations for future research, policy, and prevention and intervention efforts are forth.

#### **Definition of Terms**

Aggression Aggression has been defined as "...any behavior directed toward

another individual that is carried out with the...intent to cause

harm...[and] the perpetrator must believe that the behavior will

harm the target, and that the target is motivated to avoid the

behavior" (Anderson & Bushman, 2002, p.28).

Bullying is a subset of aggression and has been defined as

"...aggressive behavior or intentional harm doing that is carried out

repeatedly and over time in an interpersonal relationship

characterized by an actual or perceived imbalance of power or

strength" (Olweus & Limber, 2010, p. 125).

Verbal Bullying Verbal bulling includes behavior such as name-calling, teasing

people in a mean way, and insulting (Swearer et al., 2008).

Social Bullying Social bullying includes behaviors such as telling lies or spreading

rumors, humiliation, and social exclusion (Solberg & Olweus, 2003;

Swearer et al., 2008).

Physical Bullying Physical bullying includes behaviors such as hitting, kicking,

pinching, pushing, and/or breaking and/or taking belongings

(Solberg & Olweus, 2003; Swearer et al., 2008).

Bully Individuals who perpetrate bullying behaviors (Swearer & Hymel,

2015).

Victim Individuals who are the recipients of the perpetration of bullying

behaviors (Swearer & Hymel, 2015).

Bully-Victim Individuals who are perpetrators as well as recipients of the

perpetration of bullying behaviors (Swearer & Hymel, 2015).

Bystander Individuals who observe, witness, have knowledge of bullying

episodes and incidents (Swearer & Hymel, 2015), and/or emit

behaviors that either encourage or discourage bullying (Salmivalli,

1999).

Agentic Goals Social goals that encompass status and dominance "...related to

influence and admiration" (Ettekal et al., 2015, p. 78).

Communal Goals Social goals that encompass relational goals such as making friends

and pro-social behavior (Ettekal et al., 2015).

Self-efficacy Self-efficacy is a set of beliefs and judgments about how effective

one will be in a given situation, and whether or not one can or

cannot produce desired results by their actions (Bandura, 1999a;

Barchia & Bussey, 2011b).

Moral Disengagement Selective activation and disengagement of self-regulatory

mechanisms governing moral agency, which allows individuals to

engage in actions discordant with their moral standards in some

situations while engaging in behaviors in accordance with their

moral standards in other situations (Bandura, 2002).

Empathy Empathy is generally defined as "...understanding and sharing

another's emotional state or context..." (Cohen & Strayer, 1996, p.

988).

Affective Empathy Affective empathy is the ability to experience the emotions of others

(Jolliffe & Farrington, 2006a).

Cognitive Empathy Cognitive empathy is "...the ability to accurately encode or interpret

others' emotion cues..." (Ettekal et al., 2015, p. 79).

## **Research Questions and Hypotheses**

**Research Question 1.** Are there gender and grade differences in person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) for different types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim, bystander)?

**H**<sub>1.1</sub>: Males will report higher levels of agentic goals, lower levels of communal goals, lower self-efficacy for defending, higher moral disengagement, and lower empathy than females.

**H**<sub>1.2</sub>: Sixth, seventh, and eighth graders will differ in their social goals, self-efficacy for defending, moral disengagement, and empathy.

**H**<sub>1.3</sub>: Males will report more physical bullying as bullies, victims, and bully-victims than females.

**H**<sub>1.4</sub>: Sixth, seventh, and eighth graders will differ in their levels of types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim, bystander).

**Research Question 2.** Which person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) are most predictive of bullying experience (bully, victim, bully-victim) and bystander behavior in middle school students?

**H**<sub>2.1</sub>: Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict bullying (verbal, social, physical).

**H**<sub>2.2</sub>: Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict victimization (verbal, social, physical).

**H**<sub>2.3</sub>: Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict bully-victim experience (verbal, social, physical).

**H**<sub>2.4</sub>: Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict bystander behavior (pro-bully, outsider, defender).

**Research Question 3.** How does the relationship between empathy and bullying vary based on gender and grade?

**H**<sub>3.1</sub>: There will be a main effect for empathy (affective, cognitive) and bullying (overall, verbal, social, physical), such that the relationship will be negative.

**H**<sub>3.2</sub>: Gender will moderate the relationship between total empathy and overall bullying, such that the relationship will be strong for females, and the relationship will be weak for males.

**H**<sub>3.3</sub>: Gender will moderate the relationship between affective empathy and overall bullying, such that the relationship will be strong for females, and the relationship will be weak for males.

**H**<sub>3.4</sub>: Gender will moderate the relationship between cognitive empathy and overall bullying, such that the relationship will be strong for males, and the relationship will be weak for females.

**H**<sub>3.5</sub>: Grade will moderate the relationship between empathy (overall, affective, cognitive) and bullying (overall, verbal, social, physical) such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades.

#### **CHAPTER 2 LITERATURE REVIEW**

This chapter is a review of the empirical literature, as it is relevant to the problem of bullying and bystander experiences as previously described. The chapter begins with a restatement of the problem followed by a detailed discussion of the overall prevalence rates and negative outcomes associated with bullying and bystander experiences. Following, an overview of the conceptual framework and theoretical foundations is discussed, from which the ensuing content is grounded. Subsequently, a comprehensive discussion of the proposed study variables and constructs is put forth, which includes the following: types of bullying, participant roles within bullying, developmental considerations, gender, social goals, self-efficacy for defending, moral disengagement, and empathy. Throughout the chapter, your author synthesizes findings across studies and discusses the present debates, weaknesses, and gaps within the literature, and cogently provides support for the current study objectives.

#### **Restatement of the Problem**

Bullying has been documented in various media for almost two centuries (Koo, 2007). Over the last 40 years, however, scholars have amassed a voluminous literature, from which awareness on a global scale has resulted (Hymel & Swearer, 2015). Subsequent policy initiatives, prevention and intervention efforts, and tertiary treatments aimed at quelling the well-documented negative outcomes associated with bullying have produced less than adequate results (Cornell & Bradshaw, 2015). Despite worldwide attention and investigation, there are still more questions than answers (Hymel & Swearer, 2015). According to Ettekal et al. (2015), more research is needed to understand how youth coordinate social-cognitive, moral, and emotional processes, and how these person-level factors influence, and are influenced by, bullying and bystander experiences. A better understanding of these person-level factors will facilitate more

effective policies, interventions, and prevention efforts aimed at reducing, and ultimately, preventing bullying and bystander experiences of children and adolescents.

#### **Overall Prevalence**

According to Nansel et al. (2001), prior to their publication, national prevalence data on bullying did not exist. Therefore, these researchers set out to measure the prevalence of bullying experiences as well as potential associated indicators of academic, socioemotional, and psychological problems of youth. Their final sample was comprised of sixth to 10<sup>th</sup> grade students (*n* = 15,686) from across the United States. The sample was drawn from a larger, multinational research project coordinated by the World Health Organization (WHO). The Institute of Child Health and Human Development Institutional Review Board approved the U.S. survey. Data collection began in 1998 from public and private schools throughout the United States. Participating students completed the WHO's Health Behaviour in School-aged Children (HBSC) survey. Overall, approximately 30% of children and adolescents experience bullying with moderate frequency across the United States. Approximately13% experience bullying as bullies, while 10% experience bullying as victims, and 6.3% as bully-victims.

Using the WHO HBSC data, Nansel et al. (2004) set out to examine the relationship between bullying and psychosocial adjustment cross-nationally using a standard measure. Although prevalence rates of bullying experiences varied widely across countries (9% to 54%), a consistent finding was that bullies and victims demonstrated significantly more health problems than non-bullied youth. Further, compared to non-bullied youth, bullies and victims demonstrated increased problems with social and emotional functioning (Nansel et al., 2004).

Due to continued variable prevalence rates within the bully literature, Modecki, Minchin, Harbaugh, Guerra, and Runions (2014) conducted a meta-analysis, which assessed prevalence

rates for traditional- and cyber bullying. Their literature search identified 80 studies that reported prevalence rates for traditional bullying, cyber bullying, and aggression in adolescents (age range = 12- to 18-years-old). The researchers found that the mean prevalence rates for overall traditional bullying were approximately 35%. These results are consistent with prevalence rates put forth by Nansel et al. (2001) as well as more recent investigations (Olweus, 2012; Salmivalli et al., 2013).

In one of the earliest studies identifying bystanders, Atlas and Pepler (1998) set out to measure prevalence rates of bullying behaviors within classrooms. In their study, the researchers reviewed audio and video recordings of 60 bullying episodes of students (N = 190) in eight classrooms. Overall, boys and girls were equally involved in bullying; however, boys were victimized more than girls in the study. Aggressive children were more likely than non-aggressive children to bully others, but victims were equally aggressive and non-aggressive. Approximately 65% of victims were also observed bullying others (e.g., bully-victim group). Importantly, while prevalence rates regarding bystander behavior are sparse and varied, these researchers found that bystanders are present in most (85%) bullying incidents (Atlas & Pepler, 1998), and bystanders influence bullying behaviors (Salmivalli et al., 2011).

# **Negative Outcomes**

Bullying negatively affects victims, bullies, as well as bystanders academically, socially, and psychologically (Álvarez-García et al., 2015). Barker et al. (2008) conducted a prospective study, which set out to estimate the trajectories of youth (N = 3,932; ages 14- to 16-years-old; 50% male) who experience bullying and the associated outcomes over time. Measures included questions regarding bullying, victimization, delinquency, and self-harm. Consistent with previous research, bullying and victimization decreased with age. However, the overall trend

masked certain subgroup trends. In particular, one subgroup followed a trend of high bullying/low victimization (e.g., bullies). A second subgroup followed a trend of low bullying/high victimization (e.g., victims). A third group followed a trend of high bullying/high victimization (e.g., bully-victims). Within the latter trend, the authors also found that this group followed a joint trajectory of high-increasing bullying and low-decreasing victimization, which suggests that the individuals began as victims and transitioned to bullies over time (Barker et al., 2008).

Barker et al. (2008) concluded that youth who are first victimized by their peers are at an increased risk of becoming bullies and targeting others. Further, those on the increasing bully trajectory were at greater risk for delinquent- and self-harm behaviors than the decreasing bullying and victimization groups; similar to the bully-victim group for delinquency, but the bully-victim group was at greater risk than the increasing bully group for self-harm. Both genders in the bully-victim group were at increased risk of self-harm. This finding suggests that the bully-victim group should be considered at-risk and more vulnerable than other groups. The authors note that limitations of the study include the exclusion of younger ages in the sample (despite younger children's involvement in bullying), the homogeneity of the sample, and lack of controls for prior mental health problems (Barker et al., 2008).

According to Kelly et al. (2015), victims of bullying are at greater risk than bullies and non-bullied students for experiencing internalizing and externalizing problems. These researches set out to examine the associations between bullying experiences and suicidality, internalizing problems, and externalizing problems in adolescents. The authors drew their sample from the Climate and Preventure (CAP) study, which was aimed at substance use prevention and intervention for adolescents. The original sample included students (N = 2,268) from 27 schools

(18 independent and 9 public) in Australia. The study sample was comprised of adolescents (n = 1,588) from the independent schools in grades 7 through 9 (Kelly et al., 2015).

Results of the Kelly et al. (2015) study indicate that, compared to uninvolved students, bullies, victims, and bully-victims reported more problematic internalizing and externalizing behaviors as well as suicidal ideation. Descriptive statistics indicate that victims were more likely to report internalizing problems (e.g., depression, anxiety, and high suicidal ideation) than bullies. Bullies reported more alcohol and tobacco use than victims and uninvolved students. Compared to those who report behavior only as bullies or victims, the bully-victim group reported higher suicidal ideation, depression, anxiety, tobacco use, cannabis use, and conduct/hyperactivity problems. When shared variance was accounted for using multivariate analyses, victims were at greater risk for depression, anxiety, and cannabis, but not alcohol, use than uninvolved students. Adolescents who reported alcohol use and conduct/hyperactive problems were at greater risk for being bullies than uninvolved students. Adolescents who reported depression, anxiety, tobacco use, cannabis use, or problems with conduct and/or hyperactivity were more likely than uninvolved students to be bully-victims. Finally, suicidal ideation was most strongly associated with the bully-victim group when compared to bullies, victims, and uninvolved students (Kelly et al., 2015).

Research has shown that the outcomes for bystanders can be as detrimental for some youth as for those directly involved as bullies, victims, and/or bully-victims (Rivers & Noret, 2012). Recent research suggests that interventions to increase bystanders' efforts and willingness to intervene are important for the wellbeing of the bystanders themselves (Rivers & Noret, 2012) as well as to help reduce overall bullying (Polanin et al., 2012).

According to McDougall and Vaillancourt (2015), the negative consequences associated with bullying and bystander experiences are often serious and may extend into adulthood. Although bullying by itself is unlikely to cause youth to perpetrate extreme violence, develop internalizing- and/or externalizing problems, suicidal ideations, and/or attempt suicide (Hinduja & Patchin, 2010), the experience of bullying may exacerbate the likelihood of the abovementioned behaviors for at-risk youth (Barker et al., 2008; Hinduja & Patchin, 2010; Kelly et al., 2015; McDougall & Vaillancourt, 2015). Indeed, children and adolescents who think about, attempt, and/or commit suicide likely suffer from other psychopathologies (Bonanno & Hymel, 2010) including internalizing problems such as depression, anxiety, and externalizing problems such as hyperactivity, impulsivity, conduct problems, and use/abuse of tobacco and intoxicants (Kelly et al., 2015). A growing body of research continues to support the postulation that youth who commit suicide after experiencing bullying often have other socioemotional factors in their lives that put them at greater risk (Bonanno & Hymel, 2010). According to McDougall and Vaillancourt (2015), the extant literature provides support for both equifinality (e.g., multiple risk-factors leading to a single outcome) and mutifinality (e.g., a single risk-factor leading to multiple outcomes).

#### **Theoretical Framework**

**Bioecological Model.** First put forth in the 1970's, Bronfenbrenner's ecological paradigm (1974, 1977, 1979) posits that children develop in a complex set of interrelated systems, which interact and affect development. These interacting systems include (1) the microsystem: the relationship between the developing individual and his/her immediate environment (i.e., family, peers, teachers); (2) the mesosystem: the relationships among microsystems (i.e., home and school); (3) the exosystem: the relationship between settings that

affect but do not contain the individual (i.e., parents workplace and local government); (4) the macrosystem: the broad cultural context in which the individual is developing (Bronfenbrenner, 1974, 1977, 1979); and (5) the chronosystem: a third dimension of analysis, which encompasses patterns of change and/or consistencies over time, for the characteristics of the person as well as the environment in which he/she develops at a given point in time (Bronfenbrenner, 1994). With this understanding, researchers must look beyond the immediate settings (i.e., microsystems and mesosystems) in which children and adolescents live and function (Bronfenbrenner, 1974, 1977, 1979) and consider the characteristics (e.g. nature) of the child and the point in time in which development is occurring (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Ceci, 1994).

Social cognitive theory. Just as Bronfenbrenner's ecological paradigm (1974, 1977, 1979) cogently emphasized the environment (e.g., nurture) prior to the subsequent inclusion of biological (e.g., nature) factors (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Ceci, 1994), social cognitive theory underwent a similar evolution. Albert Bandura's earliest theorizing was partially based on the work of Miller and Dollard's 1941 publication of *Social Learning and Imitation* (Swearer, Wang, Berry, & Myers, 2014) and was largely based on operant conditioning principles put forth by B. F. Skinner (Lefrançois, 2012). Subsequently entitled *Social Learning Theory*, Bandura (1977a) considered the importance of learning through observation and imitation of models, which is technically within the parameters of operant conditioning principles but differs in a distinct way: operant conditioning does not take into account cognitive processes (Skinner, 1976). While observational learning can be argued as a variant form of operant learning, it is also cognitive learning because, for learning to occur, individuals must (1) pay attention to what he/she is observing, (2) construct, store, and retrieve cognitions (i.e., mental representations of the observation(s)) from memory, (3) reproduce the observed behavior,



in order to (4) be motivated to obtain an anticipated reinforcer or avoid an anticipated punisher (Bandura, 1977b, 1986).

According to Bandura (1986, 1999a), during observational learning, individuals learn through vicarious experience (reinforcement and/or punishment), which occurs though the observation of others (e.g., models). Models convey rules for behavior via observing whether or not the behavior(s) in which a model engages are perceived as reinforcing and/or punishing. Typically, children often engage in behaviors they have seen modeled by others and perceive as rewarding, and they avoid engaging in behaviors they have seen fail and/or perceive as punishing. The consequences that result from behaviors that one adopts from a model shape the actions in which that individual will engage subsequently (Bandura, 1986, 1999a).

Observational learning via models was demonstrated in the classic *Bobo doll* experiment. According to Bandura (1965a), children were randomly assigned to three treatment conditions. All groups watched a 5-minute film in which a full-size doll was screamed at, sat on, punched, and hit with objects by a child (e.g. the model). Group one viewed the child in the video praised for the behavior (e.g., reinforced). Group two saw the child reprimanded (e.g., punished). Group three watched the child receive no consequence. Following the observations, each group was put in a play area with the doll, and their behavior was recorded. Group one and three imitated the aggressive behaviors they observed, while group two (e.g., viewed model punished) did not behave aggressively with the doll. Subsequently, all groups were assessed on what they watched, and all groups were equally able to reproduce the model's behavior. This demonstrated that all of the children learned through the experience of the model, and based their behaviors on the anticipated consequences (Bandura, 1965a).

According to Bandura (1965b), the *Bobo doll* experiment demonstrated three effects of imitation: modeling, inhibitory-disinhibitory, and eliciting/response facilitating. First, the modeling effect explains learning as the acquisition of new behaviors after observing a model. Second, the inhibitory-disinhibitory effect explains learning in terms of whether or not an individual engages in a behavior emitted by the model (following the observation of a model), which was either reinforced or punished. Third, the eliciting effect (e.g., response facilitating effects) simply explains learning as engaging in a model's behavior (such as a celebrity or admired professor) in a general manner more than an explicit reproduction via reinforcement or punishment (Bandura, 1965b). Examples include behaviors such as choosing clothing and/or hairstyles, volunteering, and donating money to charity.

Expanding his theory, Bandura highlighted the concept of human agency. Bandura (1999a) explained,

In social cognitive theory, people are agentic operators in their life course, not just onlooking hosts of brain mechanisms orchestrated by environmental events. The sensory, motor, and cerebral systems are tools which people use to accomplish the tasks and goals... (p. 22).

Hence, human agency is a foundational concept of social cognitive theory because individuals think as well as act (Bandura, 1999a). Individuals serve as self-reactors who act as motivators, guides, and regulators of their own activities. Using cognitions, individuals anticipate possible and likely outcomes of a prospective action, set goals, and plan their behavior in such a way that they are likely to achieve the desired outcome (e.g., goal). Cognitions of perceived future rewards or punishments are converted into present motivational factors and regulators of current overt behaviors (Bandura, 1999a).

Self-Efficacy. According to Bandura (1977b, 1986, 1999a), self-efficacy is a belief system in which people believe that they can achieve a desired goal or outcome. Self-efficacy is a core component of social cognitive theory and is the foundation of human agency as described above. Bandura (1977b) posits that self-efficacy beliefs are distinct from outcome expectations. Outcome expectations have been operationalized as one's expectation that engaging in a specific behavior will result in a particular outcome. Self-efficacy differs from outcome expectations in that efficacy expectations are the beliefs that one has in one's ability to engage in the behavior that will result in the outcome caused by the behavior. Hence, self-efficacy is a cognitive operation, which motivates behavior and influences goals as well as self-evaluation. For example, as one forms a belief that one can successfully engage in a behavior that will result in the desired outcome, the individual will be motivated to engage in the behavior and set goals to achieve the desired outcome. If successful, self-evaluate processes reinforce the behavior as well as the belief that the individual can, and will likely, engage in the behavior subsequently (Bandura, 1977b).

Bandura (1977b) postulates that self-efficacy beliefs are formed through four sources: "...performance accomplishments, vicarious experience, verbal persuasion, and physiological states" (p. 195). The four sources of self-efficacy are hierarchical. First, self-efficacy beliefs formed through performance accomplishments (e.g., participant modeling, performance desensitization, performance exposure, and self-instructed performance) are the most powerful and lasting because they are formed though personal mastery (e.g., one's first-person experience). The second source is vicarious experience (e.g., live and/or symbolic modeling). Though not as strong as beliefs formed through personal mastery, self-efficacy beliefs formed through vicarious experience are powerful. Observing a model engage in a behavior that is

reinforced will convey information to the observer that they can, or cannot, engage in a similar behavior(s). This is especially true when the observer is similar to the model (e.g., peer, same age, and/or gender). A third source of efficacy beliefs is verbal persuasion (e.g., suggestion, encouragement, self-instruction, and interpretation). Verbal persuasion is widely used to influence individuals because it is easy and available, but research has shown it to be a less powerful source than performance accomplishments and vicarious experience. Lastly, emotional arousal is the fourth source of self-efficacy formation. Situations that are stressful and create anxiety elicit physiological arousal, which can influence one's efficacy belief in whether or not one can perform the behavior in similar situations (Bandura, 1977b).

## Aggression

As defined in chapter one, aggression is typically operationalized as behavior intended to harm a target (Anderson & Bushman, 2002). Within the aggression literature, scholars agree that aggression can be reactive or instrumental (Crick & Dodge, 1996). Based in the aggression-frustration model first put forth by Dollard, Doob, Miller, Mowrer, and Sears (1939), reactive aggression has been conceptualized as aggressive behavior, which occurs as a reaction to anger, frustration, and/or provocation (Crick & Dodge, 1996). This sort of aggressive behavior can be thought of as *hot-headed* aggression (Hawley et al., 2011). Instrumental aggression, on the other hand, has been conceptualized as aggressive behavior that proactive, deliberate, and calculated (Crick & Dodge, 1996), and is derived from social learning theory (Bandura, 1973). Instrumental aggression is elicited from reinforcers and is typically goal-directed (e.g., power, status) (Crick & Dodge, 1996).

Within the conceptual frameworks of reactive and instrumental aggression, the literature has demonstrated that aggression can be further divided into two major subcategories that are

evident across cultures: overt and relational aggression (Kawabata, Crick, & Hamaguchi, 2010). According to Crick (1996), overt aggression includes behaviors such as hitting, kicking, shoving, and verbal threats. Relational aggression, on the other hand, takes the form of covert acts such as harming others through spreading rumors, damaging others' reputations, peer rejection, and social exclusion. Studies show overt and relational aggression as temporally stable and predictive of social maladjustment regardless of gender (Crick, 1996).

# **Bullying**

Aggression and bullying are not synonyms, and some scholars suggest that the terms should not be used interchangeably (Hawley et al., 2011). To clarify any ambiguity with regard to the present study, bullying is defined as "...aggressive behavior or intentional harm doing that is carried out repeatedly and over time in an interpersonal relationship characterized by an actual or perceived imbalance of power or strength" (Olweus & Limber, 2010, p. 125). Modecki et al. (2014) conducted a meta-analysis, which assessed prevalence rates for traditional bullying and cyber bullying. These authors found that approximately 35% of youth experience bullying in traditional contexts (e.g., face-to-face, off-line), and 15% experience bullying online (e.g., cyber bullying). These results are consistent with Nansel et al. (2001) as well as more recent investigations (Olweus, 2012; Salmivalli Sainio, & Hodges, 2013). Prevalence estimate variations are due to a number of factors including definitional and measurement issues, gender, age, culture, country, and/or context (Hymel & Swearer, 2015; Rose, Nickerson, & Stormont, 2015) as well as types of bullying (Rose et al., 2015).

**Types of bullying.** Several types of bullying have been conceptualized and well documented in the literature. As with aggression, overt forms of bullying include physical (e.g., hitting, kicking, shoving) and verbal (e.g., name-calling, teasing, threats) bullying (Casper et al.,

2015). These forms of bullying are typically apparent to the victim and observable by other children and/or adults. Although, bullying often takes place where there is limited adult supervision (e.g., playgrounds, restrooms, hallways, busses) (Bauman, 2011). On the other hand, covert forms of relational/social bullying (e.g., ignoring, excluding, spreading rumors) (Casper et al., 2015) are not always observable to bystanders or even apparent to the victims while the bullying is occurring (Bauman, 2011). For example, a victim of relational bullying may not know that a bully has been spreading rumors about them with the intent of damaging the victim's reputation and/or embarrassing the victim until sometime after the bully started spreading the rumor(s). Cyberbullying is another form of bullying, which is outside the scope of the present study, but cyberbullying can be overt (e.g., name-calling, teasing, threats) or covert.

Bullying participant roles. Researchers have used many terms to refer the various roles of individuals involved in bullying experiences. In essence, and for the purposes of the current study, there are four distinct participant roles within bullying experiences. Whether the aggressive behavior is physical, verbal, and/or social, the roles within the experiences are the same. According to Swearer and Hymel (2015), the first group is the bully group. Bullies are the aggressors who perpetrate bully behaviors. The second group is the victim group. Victims are the individuals who are the recipients of the perpetration of bullying behaviors. The third group is the bully-victim group, who are both perpetrators and recipients of the perpetration of bullying behaviors. Children in the bully-victim group tend to become victims of bullying prior to being bullies. The fourth group is referred to as bystanders. Bystanders are individuals (children and/or adults) who observe, witness, have knowledge of bullying episodes and incidents (Swearer & Hymel, 2015), and/or encourage or discourage bullying by their response to the situation.

Relative to the roles of bullies and victims, much less has been written about bystanders.

Therefore, more detail regarding bystanders is warranted.

Bystander roles. In addition to experiencing bullying as a perpetrator, a victim, or a bully-victim, many children experience bullying as a witness or bystander (Salmivalli, 1999; Salmivalli et al., 2011; Thornberg & Jungert, 2013). According to Salmivalli (1999), bystanders emit behaviors that either encourage or discourage bullying. Salmivalli (1999) posits that some youth enthusiastically join the bully—directly or indirectly. This group is known as the reinforcers (Salmivalli, 1999) or the pro-bully group (Thornberg & Jungert, 2013). Within this group, many do not directly bully the target or victim. Rather, their behavior is interpreted as a positive reinforcer to the actual perpetrator of the bullying behavior(s) (Salmivalli, 1999). Forms of reinforcement can include behaviors such as providing attention, praise, and other encouragements (Salmivalli, 1999). A second bystander role is known as the outsider role (Salmivalli, 1999; Thornberg & Jungert, 2013). Outsiders typically have been found to attempt to stay neutral, keep away from the incident(s), and/or ignore the bullying (Salmivalli, 1999). The bully may often interpret the outsider behaviors as approval of his/her behavior(s) (Salmivalli, 1999). The third bystander role is the defender (Salmivalli, 1999; Thornberg & Jungert, 2013). The defenders are typically those individuals who engage in behaviors that are anti-bully and pro-victim (Salmivalli, 1999; Thornberg & Jungert, 2013). Defender behaviors include actions such as telling a teacher and/or other trusted adult(s), actively and directly trying to get the bullying to stop, comforting the perpetrator(s), and otherwise supporting the victim(s) (Salmivalli, 1999; Thornberg & Jungert, 2013).

## **Developmental Considerations**

Considering a developmental perspective, the onset of overt aggressive behaviors has been observed in children under 12-months-old (e.g., pushing, hitting, kicking) (Tremblay et al., 1999). According to a study that investigated the age of onset of physical aggression, Tremblay et al. (1999), using maternal reports (N = 511), found that children (girls n = 260; boys n = 251) engage in aggressive behaviors prior to their first birthday. Moreover, the cumulative rate of aggressive behavior increased greatly from 12 to 17 months of age. By the time these children reached 17-moths-old, the onset of aggression for almost 80% of the sample was reported. Behaviors that were assessed and reported included taking belongings, pushing, threats, hitting, biting, kicking, attacking others, fighting, starting fights, bullying, and cruelty. Interaction effects between gender and sibling presence (i.e., having a sibling) were statistically significant. Boys with siblings engaged in kicking more than girls with siblings (p < .05), and boys with no siblings engaged in (a) taking things from others more often and (b) biting more often than girls with no siblings (p < .05). Boys without siblings engaged in any one of the eleven aggressive behaviors more often than girls without siblings (p < .01). No statistically significant differences were found between boys and girls who have siblings (Tremblay et al., 1999).

Physical aggression can be observed throughout the lifespan. However, physical aggression appears to peak around 24-months-old and slowly declines through adolescence for most children (Nagin & Tremblay, 1999; Tremblay et al., 1999). With development, engagement in covert aggression emerges. Research has demonstrated that aggressive behaviors such as harming others through spreading rumors, damaging others' reputations, and peer rejection have been found in children as young as 3-years-old (Crick, 1996; Crick, Casas, & Ku, 1999).

Other researchers postulate that bullying behaviors tend to emerge in the preschool years (e.g., 3- to 5-years-old) (Hanish et al., 2011). While aggression has been documented in toddlerhood and continues through adolescence, the ways in which children understand, conceptualize, and engage in bullying behaviors changes with development (Monks & Smith, 2006). According to Monks and Smith (2006), children under 8-years-old tend to classify aggressive non-bullying behavior (e.g., fighting in which no power imbalance is perceived; not liking each other) as bullying. Although three quarters of children ages 4- to 6-years-old had some understanding of bullying, around 50% of the group could articulate conceptualizations of indirect (e.g., relational/social) bullying (Monks & Smith, 2006). Many scholars are skeptical of the claim made by some researchers that bullying (e.g., intentional, repeated, and power imbalance) emerges during the preschool years (Camodeca et al., 2015). Research on the different roles of bully participation of preschool aged children is ongoing and gaining support (Camodeca et al., 2015).

Despite accounts of bullying during early childhood, most research to date suggests that bullying experiences of children peak during the middle school years (Hymel & Swearer, 2015). Children's cognitive development and increased understanding that occurs as part of their development and maturation has been found to be a strong consideration (Monks & Smith, 2006). Researchers posit that younger children think unidimensionally, as they focus on the outcome of the act rather than the intent (Monks & Smith, 2006). That is, younger children have a more difficult time than older children distinguishing between intentional and non-intentional harm doing (Monks & Smith, 2006), which is a key criterion in bullying (Hymel & Swearer, 2015). Conversely, older children and adolescents have the cognitive capacity to use logic and

reason more abstractly, which is important when considering the complex conceptualizations involved in bully experiences (Monks & Smith, 2006).

## Gender

In a special issue of school bullying and victimization in *American Psychologist*, Hymel and Swearer's (2015) introduction article provides a broad overview of the research over the past four decades regarding bullying experiences of children and adolescents. These authors posit that boys and girls are involved in all types of bullying behaviors (e.g., verbal, social, physical, and cyber) and experience bullying in every role (e.g., bully, victim, bull-victim, and bystander). Overall, findings regarding gender and bullying have not been consistent and/or conclusive, and sex differences are not supported in all studies (Hymel & Swearer, 2015; Rodkin et al., 2015; Underwood & Rosen, 2011).

Indeed, prevalence rates based on gender vary widely in the bully literature (Hymel & Swearer, 2015). One consistent finding is that boys report more experiences with physical bullying (Hymel & Swearer, 2015; Nansel et al., 2001; Underwood & Rosen, 2011). Although previous research suggested that girls were more likely than boys to engage in indirect forms of bullying, gender differences in relational/social bullying appear to be negligible (Underwood & Rosen, 2011). Regardless of gender, studies show overt and relational aggression as temporally stable and predictive of social maladjustment (Crick, 1996).

Rodkin, Hanish, Wang, and Logis (2014) postulate that part of the problem is that researchers tend to limit questions to ones of contrast simply juxtaposing gender. These authors suggest that researchers need to go beyond contrastive comparisons to really understand the pernicious bully-victim relationship. Rodkin et al. (2015) argue that gender is an important variable to consider when investigating who is bullying whom. A growing body of research

suggests that that bullying takes place within and between genders, and more research is needed to help clarify the incongruent data (Rodkin et al., 2015).

## **Social Goals**

Through a social-cognitive lens, Bandura (1999a) posits that individuals are agentic, self-reactive beings who have the ability to motivate, direct, and regulate their own behaviors in order to achieve goals they set for themselves. Consistent with social cognitive theory, Ojanen et al. (2005) posit that different types of goals motivate behaviors. These authors also purport that behavioral strategies are formulated cognitively, subsequently carried out, and evaluated based on the whether or not the behavior was reinforced (e.g., goal attainment) (Ojanen et al., 2005). According to Ettekal et al. (2015), the study of social goals is important to understanding the dynamic nature of bullying and bystander experiences of children and adolescents, and this position is a growing consensus among researchers.

And while social goals have been investigated in the aggression (Ojanen et al., 2005) and, to a lesser extent, bullying (Ettekal et al., 2015) literatures, studies vary greatly in the ways in which social goals have been conceptualized and measured (Ojanen et al., 2005). For example, many researchers describe and define goals using different terms and categories such as relationship, control, hostile, and/or revenge to name a few (Ojanen et al., 2005). This disparate literature has not lent itself to congruence. Nevertheless, many of the aforementioned and other omitted goal categories, though narrow in focus, fit well in two broad goal categories: agentic (e.g., power, status) and communal (e.g. relational) (Ojanen et al., 2005).

Scholars postulate that agentic and communal goals sub-serve motivations for bullying and bystander behaviors (Ettekal et al., 2015). Agentic goals typically encompass the acquisition of influence, admiration, power, and dominance (Ettekal et al., 2015; Ojanen et al., 2005; Rodkin

et al., 2012; Ryan & Shim, 2006), whereas, communal goals include seeking intimacy, affiliation, friendships, and pro-social behaviors (Ettekal et al., 2015; Ojanen et al., 2005; Rodkin et al., 2012; Ryan & Shim, 2006). With regard to aggression and bully experiences, agentic goals have been linked with pro-bully behaviors, while communal goals have been linked to antibullying bystander behaviors (Ettekal et al., 2015).

Building off the work of others (see Locke, 2000 for details), Locke (2000) developed and validated a new self-report measure of interpersonal values intended to compliment existing inventories aimed at assessing social behaviors of adults. Locke's (2000) Circumplex Scales of Interpersonal Values (CSIV) measures "...the orthogonal dimensions of agency (dominance, power, status) and communion (friendliness, warmth, love)...segmented into eight octants, each reflecting a particular blend of agency and communion" (p. 249). Following the work of Locke (2000), Ojanen et al. (2005) set out to adapt and further develop a self-report measure of children's social goals using a circumplex model: the Interpersonal Goals Inventory for Children (IGI-C). The aims of their study were to develop and validate the IGI-C and (1) fit children's goals to a circumplex structure and investigate the associations between goals and social behaviors such as aggression, withdrawal, and prosocial behaviors in a primary sample of Finnish adolescents (N = 276; ages 11- and 12-years-old), which were measured using a peer-reported format, and (2) to replicate their findings using a cross validation sample of Finnish students (N = 310; 11- to 13-year-olds).

In line with Locke (2000), Ojanen et al. (2005) created the IGI-C as an interpersonal circumplex model with two orthogonal dimensions (agency and communion) segmented into eight octants representing subcategories (e.g., blends) of agentic and communal goals: (1) agentic, (2) agentic and separate, (3) agentic and communal, (4) separate, (5) communal, (6)

submissive and separate, (7) submissive and communal, and (8) submissive. The results of their study indicate that for use with children: (1) the circumplex structure was a satisfactory fit and demonstrated good psychometric properties of the scales; (2) peer-rated aggression, withdrawal, and prosocial behaviors were significantly related to self-reported goals; and (3) the relationship between goals and social status (e.g., likability) was mediated by social behaviors (e.g., aggression, withdrawal, prosocial behavior) in the validation sample.

Using a revised version of the IGI-C (IGI-CR), Trucco, Colder, Bowker, and Wieczorek (2011) preliminary analyses indicated convergent and divergent validity with interpersonal behaviors in their sample (n = 387; ages 11- to 13-years-old), which was part of a larger prospective study of adolescents. These authors found that social goals moderated the relationship between peer influence and risk taking behaviors (e.g., alcohol and cigarette use). In a subsequent study, Trucco, Wright, and Colder (2013) further developed and validated the IGI-CR with an English-speaking sample of adolescents (n = 387; ages 11-to 13-years-old) in the United States. Including culture and language, the resulting IGI-CR was found to be a valid and reliable measure of assessing social goals for U.S. youth. With regard to gender differences, Trucco et al. (2014) found that males were more likely to endorse agentic goals and less likely to endorse communal goals than females. These researchers also found that aggression was positively associated with agentic goals and negatively associated with communal goals (Trucco et al., 2014).

Using a measure of social goals originally developed and validated by Ryan and Shim (2006), Rodkin, Ryan, Jamison, and Wilson (2012) found that agentic type goals (e.g., demonstration approach and avoidance) were associated with aggression and popularity; whereas, communal type goals (e.g., social development) were associated with increased

prosocial behaviors. Interestingly, these authors suggest that goals oriented toward achieving popularity can have both positive and negative consequences. The researchers found that elevated levels of popularity can increase the chances of negative influence from peers including, but not limited to, aggression, drug use, and delinquency (Rodkin et al., 2012).

# **Self-Efficacy for Defending.**

As a central tenant of social cognitive theory, self-efficacy underlies other facets of the theory such as goal setting and self-evaluation of one's own performance, which in turn influence motivation, outcome expectations, and self-direction (Bandura, 1986, 1999a). However, studies investigating the (1) relationship between general self-efficacy and readiness to intervene and (2) self-efficacy for assertive behavior and defending behavior have failed to find statistically significant associations (Barchia & Bussey, 2011b). Rigby and Johnson (2006) provide conjecture to the null relationship. These authors posit that the measure of self-efficacy used to date may be too general for assessing intervening behavior specifically. The researchers suggest future research should use more specific self-efficacy measures (Rigby & Johnson, 2006). This line of reasoning is consistent with self-efficacy theory. Bandura (1977b) postulates that self-efficacy varies on three dimensions. Self-efficacy expectations vary in magnitude (e.g., depend on task difficulty), strength (e.g., weak expectations extinguish quickly), and, important to this point, generality: sometimes self-efficacy beliefs are situation specific, while other times, self-efficacy beliefs are generalizable to other situations (Bandura, 1977b).

Within the bullying literature, researchers have found mixed results regarding the relationship between self-efficacy for defending and actual defending behavior. In a longitudinal study, Barchia and Bussey (2011b) set out to examine the relationship between defending behavior, empathy, and social-cognitive factors over time (e.g., Time 1 = T1; Time 2 = T2) in a

sample of Australian youth (T1 N = 1, 285; T2 N = 1,167; ages 12- to 15-years-old). These authors found that defender self-efficacy was associated with defending behavior at T1 but not at T2. This failure to detect a direct relationship at T2 does not indicate the complete absence of a relationship. The authors speculate that defender self-efficacy at T1 affects defending behavior at T2 through its relationship with defending at T1 and point to the significant correlations for the aforementioned relationships at T1 and T2 as support for their supposition (Barchia & Bussey, 2011b).

Thornberg and Jungert (2013) investigated moral processes and defender self-efficacy in bully situations in a sample of Swedish youth (N = 347; ages 15- to 20-years-old). For defender self-efficacy, these researchers hypothesized a direct and negative relationship with outsider (e.g., non-defending bystander) behavior and a direct and positive relationship with defending behavior. Using structural equation modeling (SEM), these authors found significant relationships between defender self-efficacy and (1) pro-bully behavior (-.15, p. < .05), outsider behavior (-.68, p. < .05), and defending behavior (.76, p. < .05). In summary, bystanders who defend victims of bullying have higher defender self-efficacy than those bystanders who do not defend victims (Thornberg & Jungert, 2013).

The extant self-efficacy literature is prolific and has provided cogent evidence for the inclusion of the construct in explaining human behavior for decades. This has been especially true with regard to aggressive behavior. Though the investigation of the relationships between bystander behavior and, in particular, defender self-efficacy, has only recently begun, the existing evidence suggests that further investigation is warranted (Barchia & Bussey, 2011b; Thornberg & Jungert, 2013). And while self-efficacy plays a crucial role in agency, goals, self-regulation, motivation (Bandura, 1999a), pro-bully-, outsider, and defending behaviors

(Thornberg & Jungert, 2013), efficacy beliefs also strongly influence other areas of functioning such as the exercise of moral agency and moral disengagement (Bandura, 1999a; Thornberg & Jungert, 2013).

# **Moral Disengagement**

As noted above, social cognitive theory posits that individuals are self-reactors who, in essence, motivate, guide, and regulate their thoughts and actions (Bandura, 1986, 1999a). Within the concept of self-regulation, the internal standards one sets for oneself provide the foundation for the exercise of moral agency (Bandura, 1986, 1999a). As individuals mature, achieve, and develop competencies, their self-efficacy increases and their standards are progressively raised as they acquire knowledge and new skills (Bandura, 1986, 1999a). As individuals develop a moral code of conduct, they self-regulate their thoughts and actions to coincide with their moral standards (Bandura, 1986, 1999a). However, according to Bandura (2002), the self-regulatory mechanisms underlying moral action have to be activated, and there are a number of mechanisms and situations where individuals selectively disengage moral self-sanctions.

According to Bandura (1999b, 2002), selective activation and disengagement of self-regulatory mechanisms governing moral agency allows individuals to engage in actions discordant with their moral standards in some situations while engaging in behaviors in accordance with their moral standards in other situations. Moral disengagement is activated through several mechanisms, which fit into four broad categories: (1) cognitive restructuring which includes moral justification, euphemistic labeling, and advantageous comparisons; (2) ignoring, minimizing, and/or misconstruing the consequences; (3) displacement and/or diffusion of responsibility; and (4) dehumanizing the victim (Bandura, 1999b, 2002).

Hymel, Rocke-Henderson, and Bonanno (2005) set out to examine the utility of moral disengagement as a construct with regard to bullying experiences of adolescents. These authors recruited a sample of Canadian students (N = 494) in grades 8 through 10 in an urban school. Results of their study indicated that 12% of students were victims of bullying, and 13% of students reported being a bully. Pro-bully attitudes and beliefs were associated with higher levels of engagement in bullying and moral disengagement. Moderate levels of victimization were also associated with higher levels of moral disengagement (Hymel et al., 2005).

Gini, Pozzoli, and Hymel (2014) conducted a meta-analysis in order to (1) examine the link between moral disengagement and aggression in children and adolescents and (2) to test whether or not moral disengagement differs by type of aggression, participant characteristics, and methodological differences in studies. These authors included 27 samples (N = 17,776; ages 8- to 18-years-old) from 70 relevant sources (e.g., peer-reviewed journals, scholarly publications), which included measures of Bandura's moral disengagement and any specific type of aggression including bullying. Of the final sample of writings and publications (N = 27), twelve examined the relationship between moral disengagement and general aggression. Eleven examined the relationship between moral disengagement and traditional bullying. Four examined moral disengagement and cyberbullying. Using Cohen's (1992) conventional effect size descriptors, small to medium effect sizes were found. These researchers found an overall positive effect size linking moral disengagement in children and adolescents. Effects were larger for adolescents than for children. This is evidence of developmental change in moral disengagement and aggression and consistent with the idea that moral disengagement processes develop gradually as individuals get older. Additionally, effect sizes were consistent across type of aggression, gender, and publication (Gini et al., 2014).

Subsequent to the abovementioned meta-analysis, Gini, Pozzoli, and Bussey (2015) examined the relationship between individual and collective moral disengagement, aggression, and defending and passive bystanding in adolescents (N = 918; ages 12- to 16-years-old) from 48 Italian public schools located in urban and suburban communities. The researchers hypothesized that moral disengagement would have positive associations with aggression and passive bystanding and negative associations with defending behavior while controlling for known confounding variables. Using multilevel modeling (e.g., HLM), once all confounders were controlled for, individual level analysis indicated that moral disengagement predicted aggressive behavior but was not associated with either bystanding behavior. Perceived collective moral disengagement predicted aggression and defending behavior. Further, perceived collective moral disengagement moderated the relationship between individual moral disengagement and aggressive behavior, which supports previous work linking moral disengagement and aggression (Gini et al., 2015).

According to Ettekal et al. (2015), children and adolescents who experience bullying in various roles (e.g., bully, victim, bully-victim, bystander), may use various mechanisms of moral disengagement dependent on their specific role. For example, a bully may, in one way or another, dehumanize his/her victim; meanwhile, passive bystanders may displace responsibility by claiming that the teacher or another adult will intervene. However, these authors suggest that more research is needed to determine whether or not various mechanisms of moral disengagement are related to specific roles within bully experiences. These researchers posit that a notable problem is that the research to date has measured moral disengagement as a unitary construct (Ettekal et al., 2015). However, a review of the extant literature indicates that a number of scholars have examined the factor structure of the moral disengagement construct and

consistently found that it is most robust as a unitary construct (Almedia, Correia, & Marinho, 2009; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Barchia & Bussey, 2011b; Gin et al., 2015; Gini et al., 2014; Hymel et al., 2005)

# **Empathy**

Bandura (1977b, 1999a) postulates that emotion is an important consideration in social cognitive theory and is a source of efficacy expectations described above (Bandura, 1977b). More recently, Ettekal et al. (2015) highlight the importance of including emotional processes in bullying and bystander experiences. Nonetheless, despite the importance in considering emotional processes in bullying, little research has been conducted in this area beyond speculation, conjecture, and debate. Further investigation is needed to help elucidate the relationship between emotion processes and bullying and bystander experiences. In their review of the literature, Ettekal et al. (2015) posit that emotion processes influence children's social cognitions, which, subsequently, influence their social goals. To date, most of the research in emotion processing and bullying and bystander experiences has provided support for investigating two components of emotion processing: understanding emotion and empathy (Ettekal et al., 2015).

Davis (1983) reported that empathy researchers must consider both affective (e.g., emotional) and cognitive components when measuring empathy or empathic responses. Citing historical psychological writings (e.g., Smith, 1759 and Spencer, 1870), Davis (1983) argues that empathy has long been conceptualized as a cognitive ability (e.g., emotional understanding) and an affective trait and is not supported as a unitary construct (Davis, 1983). Likewise, Jolliffe and Farrington (2004) put forth the importance of considering both affective and cognitive empathy separately and synergistically.

Jolliffe and Farrington (2004) conducted a meta-analysis of empathy and various types of criminal offending. The analyses included 35 studies and produced a significant effect size (d = -0.27) when examining the relationship between total empathy and offending behavior. Overall, these researchers found a strong negative relationship between total empathy and offending. The relationship was stronger between cognitive empathy and offending than between affective empathy and offending. After controlling for intelligence and socio-economic status (SES), the empathy differences between offenders and non-offenders disappeared. While offering conjecture as to the possible relationships between empathy, intelligence, and offending, the researchers cautioned that the instruments used to measure empathy (e.g., The Hogan Empathy Scale (HES) (Hogan, 1969); The Questionnaire Measure of Emotional Empathy (QMEE) (Mehrabian & Epstein, 1972); The Interpersonal Reactivity Index (IRI) (Davis, 1980), may have confounded the results due identified flaws and inconsistencies between measures (Jolliffe & Farrington, 2004).

Following their 2004 meta-analysis, Jolliffe and Farrington (2006a) set out to develop a more robust and psychometrically sound measure of empathy, which assesses total empathy, affective empathy, and cognitive empathy. In their quest, these authors recruited an English sample of adolescents (N = 363; mean age = 14.8). Subsequent to their initial validation studies (see Chapter 3 for details), researchers in seven different countries validated the scale with results consistent with Jolliffe and Farrington (2006a). This cross-cultural validation provides cogent evidence that empathy can be broken down into three components: total empathy, affective empathy, and cognitive empathy. With regard to bullying and bystander experiences, these authors found that those who thought they should help victims in bully episodes differed in

their empathy than those who thought the bullying incident was none of their business. However, this finding was only true for males (Jolliffe & Farrington, 2006a).

Jolliffe and Farrington (2006b) examined the relationship between type of empathy (e.g., affective and cognitive) and bullying. Participants included English adolescents (N = 720; mean age = 15-years-old) from three schools. Overall, boys were more likely than girls to be involved in frequent bullying. Boys were more likely than girls to be involved with direct forms of bullying (e.g., physical and verbal), but there were no gender differences for indirect bullying (e.g., exclusion and spreading rumors). No differences in empathy were found for male bullies and male non-bullies; however, frequency of bullying was associated with empathy. Males who bullied regularly had significantly lower affective and total empathy scores. The same finding was true for females, but the authors caution that the significant results for females may have been due very low empathy scores for a small number of females who engage in frequent bullying. Overall, gender differences were evident with regard to affective empathy. Female bullies had lower affective empathy than male bullies. Total empathy was lower for males who engaged in physical bullying and for females who engaged in social bullying (Jolliffe & Farrington, 2006b).

Gini et al. (2007) investigated whether or not empathy predicts bullying and defending behavior in an Italian sample of adolescents (N = 318; mean age = 13.2 years). Overall, low empathy was associated with bullying for boys but not girls. On the other hand, higher empathy scores were significantly related to defending behavior. This finding suggests that bystanders with higher levels of empathy were more likely to defend victims of bullying than bystanders with lower levels of empathy. These authors note that a limitation of their study was the use of the IRI, which has problems with the cognitive empathy measurement. Jolliffe and Farrington

(2004, 2006b) previously noted this limitation. Gini et al. (2007) conclude that they plan to replicate their findings using the Basic Empathy Scale (BES) developed and validated by Jolliffe and Farrington (2006b).

Jolliffe and Farrington (2011) investigated the relationship between empathy and bullying while controlling for known confounders. Using a sample of English adolescents (N = 720; ages 13- to 17-years-old), these authors found that gender differences were evident—with male bullies scoring lower on affective empathy than female bullies. Low affective empathy was independently associated with male bullying, frequency, as well as with direct and indirect bullying. Differences were not observed for cognitive empathy and bullying by gender (Jolliffe & Farrington, 2011). However, Ang and Goh (2010) suggest that the relationship between cognitive empathy and bullying may be moderated by gender, with male bullies reporting lower cognitive empathy than female bullies.

Barchia and Bussey (2011b) investigated the role of empathy and social-cognitive factors associated with defending behavior in a sample of Australian youth (N = 1,167; ages 12- to 15-years-old). These authors used a reduced version of Bryant's (1982) empathy index to measure affective empathy. Overall, the researchers found an interaction effect for empathy and defending by gender. Post-hoc analyses revealed that empathy predicted defending behaviors in girls but not boys. These findings are consistent with the existing literature in suggesting that, in the context of bullying and bystander experiences, empathy may vary by component, gender, and developmental level (Barchia & Bussey, 2011b; Ettekal et al., 2015).

As research in this area continues, a proliferating body of literature supports the consideration of empathy as important in the study of aggression, bullying, and bystander experiences (Barchia & Bussey, 2011b; Gini, Albiero, Benelli, & Altoè, 2007; Ettekal et al.,

2015). Thus far, the extant literature puts forth convincing evidence that supports the role of empathy as an important construct and variable in bullying and bystander experiences. However, more research is needed to help elucidate the role of empathy within the experience of bullying and bystander behavior(s) of youth (Ettekal et al., 2015).

## **Summary**

As discussed by Urie Bronfenbrenner approximately forty years ago, researchers need to take into account the complex interaction between person-level factors and environment as well as the point in history (e.g., chronosystem) in which these forces interact, affect one another, and shape the development of children and adolescents and the ecology in which they live (Bronfenbrenner, 1977, 1979). Likewise, Bandura's (1986, 1999a) model of *triadic reciprocity* posits that person-level factors (e.g., cognitive, affective, biological), behavior, and environment, interact as reciprocally determining factors of one another and shape individuals and their development.

Despite the proliferation of literature resulting from decades of research, many questions remain regarding bullying and bystander experiences of youth. Most of the research to date has been aimed at understanding bullying in order to protect children and adolescents from the resulting negative consequences. Notwithstanding good intensions and diligent efforts, prevention and intervention results have been underwhelming for a number of reasons. Foremost is the complex and evolving nature of bullying. For this and other reasons discussed above, more research is needed to better understand how multiple person-level factors operate individually and synergistically and influence, and are influenced by, bullying and bystander behaviors (Ettekal et al., 2015).

#### **CHAPTER 3 METHODS**

This chapter discusses, in detail, the methodology used to collect and analyze data in order to address the research questions and hypotheses. The chapter begins with a restatement of the problem followed by a detailed discussion of the research design, participants, procedure, instrumentation, and data analyses used to answer each research question and test each hypothesis.

## **Restatement of the Problem**

The current study examined the ways in which person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) influence bullying and bystander experiences. A lucid understanding of how these factors predict bullying and bystander experiences, individually and synergistically, will facilitate the design and implementation of more effective prevention and intervention strategies and programs.

# **Research Design**

The current study used a cross-sectional, correlational (e.g., nonexperimental) research design. This type of research design is applicable when postulated causal relationships are identified and measured (Shadish, Cook, & Campbell, 2002); however, important structural elements such as random assignment, and experimental- and control groups are not present, and, therefore, counterfactual inference is not possible (Shadish et al., 2002). However, this type of research design permitted the observations and measurements of the strength of relationships between variables, and inferences regarding relationships (Shadish et al., 2002). The cross-sectional design allowed for the examination of developmental changes across the target grades (Shadish et al., 2002).

## **Participants**

Power analyses were conducted a priori and used G\*Power (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner, 2007) to determine the sample size necessary for the current study. For a multivariate analysis of variance (MANOVA) special effects and interactions with 6 groups, two independent variables, six dependent variables, effect size  $f^2 = .15$  (e.g., medium effect size),  $\alpha = .05$ ,  $1-\beta = .80$ , the total sample size required was 64. For multiple regression analysis, fixed model  $R^2$  deviation from zero, with 6 predictor variables, effect size  $f^2 = .15$  (e.g., medium effect size),  $\alpha = .05$ ,  $1-\beta = .80$ , the total sample size required was 98. As sample size increased, power increased.

Participants (N = 207) in grades 6 to 8 (ages 11- to 15-years-old) were recruited from one middle school located in Southeastern Michigan. The school is a State of Michigan supported Public School Academy (i.e., charter school). According to the National Alliance for Public Charter Schools (n.d.), most students (96%) participate in free or reduced-price lunch. Data collected for the current study indicated that the students in were male (43%) and female (57%) and identified as White/Caucasian (82.1%), multi-racial (6.3%), Black/African American (5.3%), Asian/Pacific Islander (5.3%), and other (1%). Across all race categories, some students identified as having Hispanic origins (6.8%). In terms of family structure, students reported living with both parents (81.2%), mother only (8.7%), father only (3.4%), grandparents (1%), and multiple relatives (5.8%). The number students in grade 6 (36.2%), grade 7 (31.4%), and grade 8 (32.4%) was evenly distributed. Detailed demographic characteristics are presented in Table 1.

Table 1

Demographic Characteristics by Gender

Demographic Characteristic	Male		Female		Total	
	n	%	n	%	$\overline{N}$	%
Gender	89	43.0	118	57.0	207	100.0
Age						
11	8	3.9	23	11.1	31	15.0
12	24	11.6	39	18.8	63	30.4
13	33	15.9	27	13.0	60	29.0
14	24	11.6	26	12.6	50	24.2
15	0	0.0	3	1.4	3	1.4
Grade						
Sixth grade	25	12.1	50	24.2	75	36.2
Seventh grade	34	16.4	31	15.0	65	31.4
Eighth grade	30	14.5	37	17.9	67	32.4
Race*						
Asian/Pacific Islander	5	2.4	6	2.9	11	5.3
Black/African American	6	2.9	5	2.4	11	5.3
Native Alaskan	0	0.0	0	0.0	0	0.0
Native American	0	0.0	0	0.0	0	0.0
White/Caucasian	72	34.8	98	47.3	170	82.1
Multi-racial	4	1.9	9	4.3	13	6.3
Other	2	1.0	0	0.0	2	1.0
Hispanic Origins*						
All Race Categories	5	2.4	9	4.3	17	6.8
Family Structure						
Mother and Father	77	37.2	91	44.0	168	81.2
Mother only	6	2.9	12	5.8	18	8.7
Father only	3	1.4	4	1.9	7	3.4
Grandparents	0	0.0	2	1.0	2	1.0
Multi-relative household	3	1.4	9	4.3	12	5.8

*Note.* \*Questions and categories based on the U.S. Census Bureau, 2010 Census questionnaire (U.S. Census Bureau, 2011).



The age range of the participants was selected and deemed optimal based on a comprehensive literature review. Prevalence of bullying peaks during middle school and tends to decline during the high school years (Hymel & Swearer, 2015). According to Monks and Smith (2006), younger children have not developed the cognitive capacity to understand the difference between intentional and non-intentional aggressive acts, which is a key criterion in the conceptualization and definition of bullying (Hymel & Swearer, 2015). As children develop, they gain the cognitive ability of abstract reasoning, which allows them to consider the complexities involved with bullying (Monks & Smith, 2006). Finally, by the time children enter the sixth grade, most have developed adequate reading abilities required to understand and answer the questions in the self-report surveys.

## **Procedure**

Prior to data collection, the current study was granted approval by the Wayne State University Institutional Review Board (IRB). The middle school's Principal also granted the Principal Investigator (PI) permission to collect data and provided a letter of support. Participants were recruited using the school's enrollment data. First, a Parent Supplemental Information Letter with "Decline to Participate" Option was sent first class mail using the students' addresses on file with the school. Parents and/or guardians and participants received information, which fully informed them that the study involved research about bullying experiences and factors associated with bullying such as social goals, moral dilemmas, and empathy. The PI's contact email, mailing address, and phone number were provided on the information sheet if the parents and/or guardians wanted to learn more about the study. All parents, guardians, and participants were informed and assured that (1) participation in the study was completely voluntary, and (2) they were allowed to withdraw from participation at any time, and there was no penalty for

withdrawal. Of the 245 letters mailed, eleven parents returned the decline option, called, or emailed the PI and declined participation of their child. Of the 234 students (95.5%) eligible to participate, nineteen (8.1%) were absent, declined to participate, and/or were involved in activities during the survey administration. After cleaning the data, seven cases were removed due to missing data. One case, an outlier, was removed due to patterned responses on several measures, which skewed the data. As a result, the final sample was comprised of 207 students, which accounted for 84.4% of the students enrolled in grades 6 through 8 during the 2015-2016 school year.

The questionnaires were administered during the regular school day during students' foreign language class period, which was decided in advance by the school Principal. Students whose parents or guardians declined participation for their child, and any student that did not assent were allowed to work on school assignments or silently read during survey administration. Participants were provided and read an information sheet and informed that by completing the survey packet, they agreed to participate in the study. Participants were informed that they did not have to participate if they did not want to be in the study. Participants were directed to inform the researcher if they did not want to participate, and they may stop participating at any time during the survey administration. Participants were reassured that no one was, or will be, angry if they chose to abstain or withdraw from participation in the study.

All participants were informed that they would complete a self-report questionnaire once, and total participation time should take approximately 20 to 30 minutes or less. The PI was available to answer questions, which arose throughout the survey administration. As participants finished, they returned their surveys face down to the researcher. The PI placed the questionnaires in a box, which was subsequently sealed and locked in a cabinet in the PI's office.

No student names or identifiers appeared on, or could be linked to, the surveys. No individual who participated in the study was/is able to be identified based on information on the questionnaire. Further, using the Parent Supplemental Information Letter with "Decline to Participate" Option along with adolescent and child assent forms required a waiver of written consent. Not requiring written consent, written assent, or other signatures reduced any risk of linking identifiable information to the surveys and/or individual participants. Additionally, students were provided with, and read aloud, the child and adolescent assent forms on the day of, and prior to completing, the survey and notified that, by completing the survey, they agreed to participate in the study but could withdraw from participation at any time without penalty.

## Measures

Permission to use of all measures included in the current study was obtained by the PI from each scale developer and/or corresponding author from the publication prior to including the scales in the study. The following self-report survey instruments were administered: demographic questions (gender, age, grade, race/ethnic identity, and living arrangements), Peer Experiences Questionnaire (Vernberg, Jacobs, and Hershberger, 1999). Student Bystander Behavior Scale (Thornberg & Jungert, 2013), Interpersonal Goals Inventory for Children, Revised (Trucco et al., 2013), Self-efficacy for Defending (Barchia & Bussey, 2011b), Moral Disengagement Scale for Peer Aggression (Barchia & Bussey, 2011b), and the Basic Empathy Scale (Jolliffe & Farrington, 2006a). All questionnaires used a self-report format and a Likert-type rating scale.

**Demographic questions.** Demographic questions relevant to the current study were used to collect information regarding the participant's gender, age, grade level, and race\ethnic identity and living arrangements (e.g., *lives with both parents, lives with other relatives*).

Questions were self-report, forced choice format with an option to write additional race/ethnicity if there was not an appropriate choice provided as a listed option.

**Peer Experiences Questionnaire (PEQ).** Perpetration and victimization of bullying was measured using two 9-item subscales of the PEQ: Victimization of Self (VS) and Victimization of Others (VO). The PEQ was developed and validated (N = 1,033; grades 7 to 9) for use with adolescents by Vernberg et al. (1999). According to Vernberg et al. (1999), the 18-item, selfreport questionnaire used 9 items to assess VO (i.e., perpetration) and 9 items to assess VS (i.e., victimization). Items were rated on a 5-point Likert-type rating scale ranging from 1 (Never) to 5 (A few times a week). Victimization was assessed with 9 items, which assessed each type of aggression and bullying: (1) verbal (e.g., A student teased me in a mean way, called me bad names, or said rude things to me), (2) social (e.g., Some students left me out of an activity or conversation to make me feel bad) and (3) physical (e.g., A student hit, kicked, or pushed me in a mean way). Perpetration was assessed with the same 9 items (with pronouns reversed), which assessed each type of aggression and bullying: (1) verbal (e.g., I teased another student in a mean way, called him or her bad names, or said rude things to him or her), (2) social (e.g., I helped leave a student out of an activity or conversation to make him or her feel bad), and (3) physical (e.g., I hit, kicked, or pushed another student in a mean way). Perpetration and victimization scores were obtained by summing their respective items. Bully-victim scores were obtained by summing all 18 items.

*PEQ validity and reliability.* Several studies reported good validity and reliability for the PEQ subscales (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004; Pearce, Boergers, & Prinstein, 2002; Prinstein, Boergers, & Vernberg, 2001; Vernberg et al., 1999). Prinstein et al. (2001) reported that correlations between the VS and victimization reported by parents were

significant in two independent samples (r = .36 and .39, p < .001). Peer reports also demonstrated significant correlations to the same measures (r = .34 and .40, p < .001). Using Cronbach's alpha, good internal consistencies were reported across studies: Vernberg et al. (1999) (VO:  $\alpha = .78$ ; VS:  $\alpha = .85$ ); Prinstein et al. (2001) (VS:  $\alpha = .76$  to .79; VO:  $\alpha = .77$  to .80); and Dill et al. (2004): (VS:  $\alpha = .91$ ).

VS and VO readability. Two versions of the scale exist: one for use with students in grades 3 through 6, and another version for students in grades 7 through 8 (E. Vernberg, personal communication, March 24, 2016). The version intended for younger students consists of the same items, but several of the items (not all items) were shortened for easier reading and comprehension. For example, a verbal bullying item on the younger students' form (grades 3 to 6) reads, "A kid teased or made fun of me in a mean way"; while the same verbal bullying item for older students (grades 7 to 12) reads, "A student teased me in a mean way, called me bad names, or said rude things to me". To assess the readability of the younger student form (grades 3 to 6) and older student form (grades 7 through 12), the Flesch-Kincaid readability test was used for the current study and assessed all 18-items for each form separately. For the younger student form (grades 3 to 6), results indicated a Flesch-Kincaid grade level of 1.9. This rating indicates that individuals able to read at the end of the first grade level would be able to read and understand the scale items. For the older student form (grades 7 to 12), results indicated a Flesch-Kincaid grade level of 4.1. This rating indicates that individuals able to read at a fourth grade level would be able to read and understand the scale items.

**Student Bystander Behavior Scale (SBBS).** Bystander behavior was measured using the SBBS. The SBBS was based on the bystander roles conceptualized by Salmivalli (1999) and Salmivalli et al. (1996): The Participant Role Questionnaire (PRQ), which assesses bystander

experiences using a peer-nomination format (Hamburger et al., 2011; Salmivalli et al., 1996); however, the SBBS was created to assess bystander behavior via self-report format, which was ideal for use in the current study. The SBBS, developed and validated for use with adolescents by Thornberg and Jungert (2013), is an 8-item self-report measure of bystander behaviors emitted by participants in various bystander roles. Participants were asked the question, "If you saw one or some kids bullying another kid in school, how did you use to react when you saw bullying going on?" Of the eight items, four types of behaviors were assessed within three bystander roles: (1) the pro-bully role, within which two items focus on assisting the bully (e.g., I took the bullies' side and joined in the bullying), and two items focus on reinforcing the bully (e.g., I laughed and cheered the bullies on); (2) the outsider role (e.g., I didn't do anything but I was quiet and passive instead), and (3) the defender role (e.g., I tried to get the bully/bullies to stop). Items were rated on a 5-point Likert-type rating scale ranging from 1 (never) to 5 (always).

SBBS validity and reliability. A literature review and subsequent correspondence with the instrument's developer revealed that, prior to the current study, Thornberg and Jungert (2013) is the only publication that provided psychometric data for the SBBS (R. Thornberg, personal communication, March 21, 2016). In the initial validation of the SBBS (N = 347; ages 15- to 20-years-old; mean age = 17.4, SD = .98), Thornberg and Jungert (2013) conducted an exploratory factor analysis (EFA) using Maximum Likelihood (ML) and Direct Oblimin rotation as their first procedure. After analyzing factor loadings and examining scree plots, these authors found the three-factor model to be the best fit. The three-factor solution (e.g., pro-bully, outsider, and defender) explained 73% of the variance compared to a four-factor solution, but the three-factor model required four iterations compared to the 89 iterations of the four-factor model. The three-factors (e.g., pro-bully, outsider, and defender) were negatively correlated (r = -.14, -.31, -.31).

.19). Confirmatory factor analysis (CFA) indicated that the three-factor solution was a good fit using the comparative fit index (CFI = .94) and root mean square error of approximation (RMSEA = .09). Results indicated good internal consistency (Cronbach's  $\alpha$  = .82) (Thornberg & Jungert, 2013).

*SBBS scale readability.* To assess the readability of the SSBS scale, the Flesch-Kincaid readability test was used for the current study. Results indicated a Flesch-Kincaid grade level of 4.4. This rating indicates that individuals able to read at a fourth grade level would be able to read and understand the scale items.

Interpersonal Goals Inventory for Children, Revised (IGI-CR). Social goals were measured using IGI-CR, which is based on the interpersonal circumplex (IPC) model as described in detail in Chapter 2. The IGI-CR is a revision of the Interpersonal Goals Inventory for Children (IGI-C; Ojanen et al., 2005), which was based on the Interpersonal Goals Inventory (IGI; Dryer & Horowitz, 1997) and the Circumplex Scales of Interpersonal Values (CSIV; Locke, 2000)—both of which were created for use with adults (Ojanen et al., 2005). According to Trucco et al. (2013), the IGI-CR is a revised version of the IGI-C. The IGI-C was developed and validated for use with Finnish speaking children and adolescents using primary (n = 276; 11-to 12-years-old) and cross-validation (n = 310; 11- to 13-years-old) samples. The revised IGI-C (IGI-CR) was subsequently developed and validated to assure that instructions and items were age- and culturally appropriate for use with English-speaking children and adolescents (N = 387; 11- to 13-years-old).

According to Trucco et al. (2013), the IGI-CR is a 32-item self-report measure of social goals, which allows researchers to assess social goals using a broad conceptual approach applicable in many contexts including, but not limited to, aggression and bullying. Following the

statement, "When with your peers, in general how important is it to you that...?" (Trucco et al., 2013, p. 101), all items were rated on a 5-point Likert-type rating scale ranging from 0 (*not at all important to me*) to 4 (*extremely important to me*). The 32-item IGI-CR is comprised of 8 social goal subscales (4 items per scale): Agentic (+A) (e.g., *Your peers respect and admire you*), Agentic and Communal (+A+C) (e.g., *Your peers listen to your opinion*), Communal (+C) (e.g., *You feel close to your peers*), Submissive and Communal (-A+C) (e.g., *You agree with your peers about things*), Submissive (-A) (e.g., *You let your peers make decisions*), Submissive and Separate (-A -C) (e.g., *You do not do anything ridiculous*), Separate (-C) (e.g., *You do not let your peers get too close to you*), and Agentic and Separate (+A-C) (e.g., *The group does what you say*).

Scoring can be calculated using subscale and/or vector scores (Ojanen et al., 2005). Subscale goal item scores were calculated using ipsatized scale scores (computed from raw scale scores) (e.g., expressed as deviations from their mean score across all the scales in order to control for the variation in subjective response style) (Ojanen et al., 2005). Agentic and communal vector scores were calculated for each participant using the following formula as put forth by Ojanen et al. (2005):

Agentic $_{vect}$  = Agentic - Submissive + [.707 × (Agentic and Communal + Agentic and Separate - Submissive and Communal - Submissive and Separate)]...Communal $_{vect}$  = Communal - Separate + [.707 × (Agentic and Communal + Submissive and Communal - Agentic and Separate - Submissive and Separate)] (pp. 702-703).

Based on the conceptualization and operational definitions of social goals, research questions, and hypotheses of the current study and consultation with the scale developers (E. M. Trucco, personal communication, March 23, 2015 and T. Ojanen, personal communication,

March 25, 2016), agentic and communal vector scores are the preferred scoring method and were used for the current study.

ICI-C and IGI-CR validity. According to Ojanen et al. (2005), the original IGI-C has demonstrated adequate criterion validity and a valid circumplex structure. For example, good construct validity (e.g., fit of the circumplex model) was demonstrated by ipsatizing participants' scale scores and analyzing the subsequent ipsatized correlations. Highly positive correlation observed between adjacent scales (e.g., Agentic scale and Agentic and Separate scale), and highly negative correlations observed between opposite scales (e.g., Communal scale and Separate scale) support a circumplex structure. Trucco et al. (2013) followed the same procedures. According to these authors,

...the correlation between any two scales in the circumplex array is defined as a function of its angular distance on the circumference of the hypothesized circle. In a perfect circumplex, all the scales have equal communalities (i.e., uniform radius) and are equally spaced (i.e., separated by the same angle) (p. 102).

The IGI-C (Ojanen et al., 2005) and IGI-CR (Trucco et al., 2013) were subject to the same procedures to evaluate the overall fit between the goal scales and the circumplex structure. Both studies used a nonparametric test of randomization test of hypothesized order relations as outlined by Hubert and Arabie (1987) (Ojanen et al., 2005; Trucco et al., 2013). Analyses were carried out using RANDALL (see Ojanen et al., 2005 and Trucco et al., 2013 for a more detailed discussion), which assessed the circumplex model fit by calculating 288 hypothesized order predictions and provides a correspondence index (CI) with values of -1.0 to 1.0 (1.0 = 100% of predictions met/perfect fit) as the result. In other words, the CI is the result of calculating 288 predictions of the magnitudes of the correlations of the scales. Results for each study follow:

Ojanen et al. (2005) reported a good fit to the circumplex model (Wave 1: 262/288 predictions met; CI > .82, p. < .001; Wave 2: 248/288 predictions met; CI > .73, p. < .001; Cross-validation: 244/288 predictions met; CI > .69, p. < .001). Possible gender differences were assessed. The model fit for genders was similar when gender was compared separately in all samples. Trucco et al. (2013) also reported a good fit (271/288 predictions met; CI = .89, p. < .001). Model fit was similar for both males (CI = .87, p. < .001) and females (CI = .89, p. < .001). Trucco et al. (2013) also conducted additional analyses using CIRCUM, which is a structural equation modeling program for circumplex structures. Results indicated an acceptable model fit (see Trucco et al., 2013 for a detailed description).

Convergent and divergent validity have been established across several studies (Ojanen et al., 2005; Trucco et al., 2008; Trucco et al., 2011; Trucco et al., 2013). According to Trucco et al. (2013) principal component analysis identified the optimal and final 32 items (4 items per octant) of the IGI-CR, which demonstrated good convergent and divergent validity.

*ICI-C and IGI-CR reliability.* The IGI-C demonstrated good test-retest reliability over two weeks in primary and cross-validation samples (Ojanen et al., 2005). Using Cronbach's alpha, with the exception of the Submissive and Communal ( $\alpha$  = .57) scale. In the first sample, the IGI-C demonstrated adequate internal consistencies (Primary sample:  $\alpha$  = .57 to .73, most above .70; cross-validation sample: +A  $\alpha$  = .74; +A-C  $\alpha$  = .80; -C  $\alpha$  = .82; -A -C  $\alpha$  = .78; -A  $\alpha$  = .82; -A+C  $\alpha$  = .63; +C  $\alpha$  = .79; +A+C  $\alpha$  = .75).

According to Trucco et al. (2013), the IGI-CR final 8 scales (i.e., 32-item measure) demonstrated adequate internal consistencies (+A  $\alpha$  = .68; +A-C  $\alpha$  = .69; -C  $\alpha$  = .72; -A -C  $\alpha$  = .76; -A  $\alpha$  = .73; -A+C  $\alpha$  = .80; +C  $\alpha$  = .77; +A+C  $\alpha$  = .70).



*IGI-CR readability.* To assess the readability of the IGI-CR, the Flesch-Kincaid readability test was used for the current study. Results indicated a Flesch-Kincaid grade level of 2.6. This rating indicates that individuals able to read at a second grade level would be able to read and understand the scale items.

Self-Efficacy for Defending. Self-efficacy for defending was measured using the self-efficacy for defending scale, which was developed and validated by Barchia and Bussey (2011). According to these authors, the self-efficacy for defending scale is a subscale of a nine-factor self-efficacy scale developed and validated for use with adolescents. The self-efficacy for defending scale is a 3-item self-report measure of participants' belief in their ability to be successful in defending victims of peer aggression. Each item assessed one type of aggressive behavior: (1) physical aggression, (2) verbal aggression, and (3) relational/social aggression. An example of the scale items reads, "How well can you...Tell a student who leaves others out, spreads rumors, or says mean things about another student behind their back to stop?" Participants were asked to rate each item using a Likert-type scale ranging from 1 (not very well) to 7 (very well).

Self-efficacy for defending validity and reliability. According to Barchia and Bussey (2011b), the validation sample (T1 N = 1, 285; T2 N = 1,167) included children and adolescents (ages 12- to 15-years-old). The subscale was validated as part of a full self-efficacy scale. For the full scale, only items with loadings of .40 on a single factor and .15 or less on other factors were included. A principal axis factor analysis with Oblimin rotation was conducted and revealed a 9-factor structure (loadings = .43 to .92). For the 3-item self-efficacy for defending subscale, item loadings ranged from .75 to .84.

Self-efficacy for defending scale readability. To assess the readability of the self-efficacy for defending scale, the Flesch-Kincaid readability test was used for the current study. Results indicated a Flesch-Kincaid grade level of 6.7. Due to a relatively high grade-level score, a Flesch reading ease score was also calculated. The Flesch reading ease score is 72.8 (e.g., Fairly easy to read). This rating indicates that individuals able to read at a sixth grade level would be able to read and understand the scale items fairly easily.

Moral Disengagement Scale for Peer Aggression. The Moral Disengagement Scale for Peer Aggression was developed and validated by Barchia and Bussey (2011b) and was based on the moral disengagement scale developed by Bandura et al. (1996). According to Bandura et al. (1996), the 32-item Mechanisms of Moral Disengagement measure was developed and validated for use with junior high school students in grades 6 through 8 ranging in ages from 10- to 15-years-old (mean age = 11.8 years). The scale's purpose was to measure "...proneness to moral disengagement of different forms of detrimental conduct in diverse contexts and interpersonal relationships" (Bandura et al., 1996, p. 367). The 32-item scale assessed eight mechanisms of moral disengagement with four items each: (1) moral justification, (2) euphemistic labeling, (3) advantageous comparisons, (4) displacement of responsibility, (5) diffusion of responsibility, (6) distortion of consequences, (7) dehumanization, and (8) attribution of blame. A principal component factor analysis with varimax rotation revealed support for a one-factor solution. The measure demonstrated good internal consistency (Cronbach's  $\alpha = .82$ ).

According to Barchia and Bussey (2011b), the Moral Disengagement Scale for Peer Aggression retained nine items from the original 32-item scale that were relevant to experiences with peer aggression (e.g., *It's alright to beat someone who bad mouths your family*). The developers added five items that specifically assessed peer aggression resulting in a new 14-item

scale. The five new items targeted justification of (1) physical-, (2) relational-, and (3) verbal aggression as well as (4) passive bystanding, and (5) a general item about bullying. Participants were asked to rate each item on a 4-point Likert-type scale, which ranges from 1 (*don't agree*) to 4 (*totally agree*).

Reliability and validity. According to Barchia and Bussey (2011b), the Moral Disengagement Scale for Peer Aggression was validated for use with children and adolescents (ages 12- to 15-years-old) (T1 N = 1, 285; T2 N = 1,167) using principal axis factor analysis with Oblimin rotation. A two-factor structure emerged accounting for 17.3% and 18.1% of the variance (respectively), which were moderately correlated (r = .59). One item was deleted (e.g., If kids fight and misbehave in school it is their teacher's fault) during factor analysis due to low factor loading (< .40) resulting in a final 13-item scale. Using the Schmid-Leirman solution, a unidimensional, one-factor solution emerged accounting for 64.5% of the variance and was determined to be the best solution, which did not vary by gender. Further analyses demonstrated good internal consistency for the overall scale (Cronbach's  $\alpha = .86$ ).

*Moral Disengagement Scale for Peer Aggression readability.* To assess the readability of the Moral Disengagement Scale for Peer Aggression scale, the Flesch-Kincaid readability test was used for the current study and indicated a level of 6.1. This rating indicates that individuals able to read at a sixth grade level would be able to read and understand the scale items.

**Basic Empathy Scale (BES).** Empathy was measured using the BES, which was originally developed and validated for use with adolescents by Jolliffe and Farrington (2006a). According to Jolliffe and Farrington (2006a), the BES is a 20-item self-report measure of empathy, which allows researchers to assess affective empathy (i.e., ability to share in other's emotional experiences), cognitive empathy (i.e., ability to understand others' emotional states),

and total empathy. Items were rated on a 5-point Likert-type rating scale ranging from 1 (strongly disagree) to 5 (strongly agree). Affective empathy is assessed with 11 items (e.g., I get caught up in other people's feelings easily.). Cognitive empathy is assessed with nine items (e.g., I can understand my friend's happiness when she/he does well at something.). Affective and cognitive empathy scores were obtained by summing their respective items, and a total empathy score is obtained by summing all 20 items.

*BES validity.* In their initial validation of the 20-item BES, Jolliffe and Farrington (2006a) conducted a confirmatory factor analysis (CFA) and found support for the two-factor structure (cognitive item loadings = 0.43 to 0.62; affective item loadings = 0.41 to 0.71). The 20-item BES goodness-to-fit was conducted using the following indices criteria: goodness-to-fit (GFI) > 0.85, adjusted goodness-to-fit (AGFI) > 0.80, and root mean square residual (RMS) < 0.10. Results suggest a good fit for the overall BES two factor structure: GFI = 0.89, AGFI = 0.86, RMS = 0.06. A single factor structure was tested and not supported: GFI = 0.82, AGFI = 0.78, RMS = 0.08. The two-factor structure was supported when separated by gender for males (GFI = 0.88, AGFI = 0.85, RMS = 0.07) and females (GFI = 0.86, AGFI = 0.83, RMS = 0.06). A one-factor structure was not supported when separated by gender for males (GFI = 0.79, AGFI = 0.74, RMS = 0.09) and females (GFI = 0.81, AGFI = 0.76, RMS = 0.08).

BES cross-cultural validation. The BES was originally developed and validated (N = 363; mean age = 14.8) for use with adolescents in England. Subsequently, the BES was translated into several languages and validated across cultures in countries such as Italy (Albiero, Matricardi, Speltri, & Toso, 2009), Singapore (Ang & Goh, 2010), France (D'Ambrosio, Olivier, Didon, & Besche, 2009), China (Geng, Xia, & Qin, 2012), Turkey (Topcu & Erdur-Baker, 2012), Slovakia (Čavojová Sirota, & Belovičvá, 2012), Republic of El Salvador (Salas-Wright,

Olate, & Vaughn, 2012), and Portugal (Pechorro, Ray, Salas-Wright, Maroco, & Gonçalves, 2015). Across languages and cultures, the studies cited above suggest that the BES two-factor structure demonstrates sufficient (1) construct validity, (2) convergent validity, and (3) divergent validity, which is consistent with Jolliffe and Farrington (2006a).

**BES** reliability. According to Jolliffe and Farrington (2006a), the BES initially consisted of 40 items. Following the CFA and data reduction, the resulting two-factor 20-item scale demonstrated good internal consistency, which was demonstrated for the 11 affective items (Cronbach's  $\alpha = .85$ ) and nine cognitive items (Cronbach's  $\alpha = .79$ ). Jolliffe and Farrington (2011) reported good internal consistency for total empathy (total sample  $\alpha = .87$ ; males  $\alpha = .85$ ; females  $\alpha = .83$ ), affective empathy (total sample  $\alpha = .85$ ; males  $\alpha = .79$ ; females  $\alpha = .74$ ) and cognitive empathy (total sample  $\alpha = .79$ ; males  $\alpha = .79$ ; females  $\alpha = .78$ ). Results from subsequent studies reporting Cronbach's alphas indicated adequate cross-cultural internal consistencies: Albiero et al. (2009) (total  $\alpha = .87$ ; cognitive  $\alpha = .74$ ; affective  $\alpha = .86$ ), D'Ambrosio et al. (2009) (total  $\alpha = .80$ ; cognitive  $\alpha = .66$ ; affective  $\alpha = .77$ ), Ang & Goh (2010) (cognitive  $\alpha = .75$ ; affective  $\alpha = .76$ ), Geng et al. (2012) (total  $\alpha = .77$ ; cognitive  $\alpha = .72$ ; affective  $\alpha = .73$ ), Čavojová Sirota, and Belovičvá (2012) (cognitive  $\alpha = .70$ ; affective  $\alpha = .76$ ), Topcu and Erdur-Baker (2012) (cognitive  $\alpha = .81$ ; affective  $\alpha = .75$ ), Salas-Wright et al. (2012) (total  $\alpha = .76$ ), and Pechorro et al. (2015) (total  $\alpha = .91$ ; cognitive  $\alpha = .90$ ; affective  $\alpha = .97$ . Adapted total  $\alpha = .81$ ; cognitive  $\alpha = .80$ ; affective  $\alpha = .74$ ).

**BES** readability. The Flesch-Kincaid readability test indicated a grade level of 4.9. Individuals able to read at a fourth grade level should be able to read and understand the items.

#### **Internal Consistency of Measures**

Reliability coefficients for each scale in the current study are presented in Table 2.



Table 2
Cronbach's Alpha Coefficients: Scaled Variables (N = 207)

Scale/Subscale	Number of Items	α
Interpersonal Goals Inventory for Children, Revised (IGI-CR)	0.1.000.00	
Agentic (+A)	4	.79
Agentic-Separate (+A –C)	4	.79
Separate (–C)	4	.73
Submissive-Separate (–A –C)	4	.72
Submissive (–A)	4	.66
Submissive-Communal (-A +C)	4	.81
Communal (+C)	4	.83
Agentic-Communal (+A +C)	4	.76
Self-Efficacy for Defending (SED)	3	.88
Moral Disengagement for Peer Aggression (MD)	13	.89
Basic Empathy Scale (BES)		
Total Empathy	20	.82
Cognitive Empathy	9	.74
Affective Empathy	11	.77
Peer Experiences Questionnaire (PEQ)		
Victim		
Overall	9	.88
Verbal	2	.79
Social	4	.78
Physical	3	.73
Bully		
Overall	9	.83
Verbal	2	.65
Social	4	.72
Physical	3	.72
Bully-Victim		
Overall	18	.87
Verbal	4	.61
Social	8	.77
Physical	6	.73
Student Bystander Behavior Scale (SBBS)		
Pro-Bully	4	.84
Outsider	2	.66
Defender	2	.72



### **Data Analysis**

IBM® SPSS® version 23 was used to analyze the data. The PI manually entered all survey responses into the statistical software program. The data analyses conducted are presented in three separate sections. First, descriptive statistics are presented to provide a profile of the sample characteristics. Second, baseline data on the survey instruments and scales including intercorrelational matrices, simple and marginal means, and standard deviations of the scaled variables are reported. Third, the inferential statistical analyses are presented, which directly addressed the research questions and hypotheses of the study. All decisions of statistical significance were made using a criterion alpha level of .05. The statistical analyses used to address each research question are presented in Table 3.

Table 3
Research Questions, Hypotheses, and Statistical Procedures

**Research Question 1.** Are there gender and grade differences in person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) for different types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim, bystander)?

Research Q1 Hypotheses	Variables	Statistical Analysis
H <sub>1.1</sub> : Males will report higher levels of agentic goals, lower levels of communal goals, lower self-efficacy for defending, higher moral disengagement, and lower empathy than females.	Dependent Variables Social goals	An intercorrelation matrix was constructed using Pearson product moment correlations to measure the strength and the direction of the relationships between study variables.
H <sub>1.2</sub> : Sixth, seventh, and eighth graders will differ in their social goals, self-efficacy for defending, moral disengagement, and empathy.	<ul> <li>Affective</li> <li>Cognitive</li> <li>Bully Type</li> <li>Verbal</li> <li>Social</li> <li>Physical</li> </ul>	A 2 X 3 factorial MANOVA was used to determine if person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy)

Table 3 Continued

Research Q1 Hypotheses	Variables	Statistical Analysis
Research Q1 Hypotheses  H <sub>1.3</sub> : Males will report more physical bullying as bullies, victims, and bully-victims than females.  H <sub>1.4</sub> : Sixth, seventh, and eighth graders will differ in their levels of types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim) and bystander behavior (probully, outsider, defender).	Experiences	differ by grade and gender.  A 2 X 3 MANOVA was used to determine if different types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim) and bystander behavior (pro-bully, outsider, defender) differ by grade and gender.  Statistically significant MANOVAs were followed up with univariate analyses of variance (ANOVA), simple effects ANOVAs, and Tukey's HSD post hoc tests
		were used to detect where differences exist.

**Research Question 2.** Which person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) are most predictive of bullying experience (bully, victim, bully-victim) and bystander behavior in middle school students?

Research Q2 Hypotheses	Variables	Statistical Analysis		
H <sub>2.1</sub> : Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict bullying (verbal, social, physical).	Criterion Variable Bully Perpetration (verbal, social, physical)  Predictor Variables Agentic goals Communal goals Self-efficacy for defending Moral disengagement Empathy	Multiple regression analysis was used to determine if person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict bully perpetration (verbal, social, physical).		



Table 3 Continued

Research Q2 Hypotheses	Variables	Statistical Analysis
H <sub>2.2</sub> : Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict victimization (verbal, social, physical).	Criterion Variable Victimization (verbal, social, physical)  Predictor Variables Agentic goals Communal goals Self-efficacy for defending Moral disengagement Empathy	Multiple regression analysis was used to determine if person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict victimization (verbal, social, physical).
H <sub>2.3</sub> : Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict bully-victim experience (verbal, social, physical).	Criterion Variable Bully-Victim (verbal, social, physical)  Predictor Variables Agentic goals Communal goals Self-efficacy for defending Moral disengagement Empathy	Multiple regression analysis was used to determine if person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict bully-victim experience (verbal, social, physical).
H <sub>2.4</sub> : Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict bystander behavior (probully, outsider, defender).	Criterion Variable Bystander behavior (probully, outsider, defender)  Predictor Variables Agentic goals Communal goals Self-efficacy for defending Moral disengagement Empathy	Multiple regression analysis was used to determine if person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict bystander behavior (pro-bully, outsider, defender).



# Table 3 Continued

**Research Question 3.** How does the relationship between empathy and bullying vary based on gender and grade?

Research Q3 Hypotheses	Variables	Statistical Analysis
H <sub>3.1</sub> : There will be a main effect for empathy and bullying such that the relationship will be negative.  H <sub>3.2</sub> : Gender will moderate the relationship between total empathy and overall bullying, such that the relationship will be strong for females, and the relationship will be weak for males.  H <sub>3.3</sub> : Gender will moderate the relationship between affective empathy and overall bullying, such that the relationship will be strong for females, and the relationship will be weak for males.  H <sub>3.4</sub> : Gender will moderate	Criterion Variable Bullying  Overall Verbal Social Physical  Moderator Variables Gender Grade  Predictor Variables Empathy Total Empathy Affective Empathy Cognitive Empathy	Statistical Analysis  Moderated multiple regression analyses were conducted to test each hypothesis.  Data was entered into the regression analyses using the same steps for each individual analysis:  1. Bullying predicted by empathy plus dummy variable(s) (gender dummy or grade dummy 1 and grade dummy 2).  2. Model 1 plus interaction term (empathy x gender or grade).
H <sub>3.4</sub> : Gender will moderate the relationship between cognitive empathy and overall bullying, such that the relationship will be strong for males, and the relationship will be weak for females.		
H <sub>3.5</sub> : Grade will moderate the relationship between empathy and bullying such that the relationship will be strong for higher grades, and weak for lower grades.		



#### **CHAPTER 4 RESULTS**

The purpose of the current study was to examine the ways in which person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) influence bullying and bystander behaviors separately and combined. Increased cognizance of how these factors predict bullying and bystander behaviors individually and synergistically will facilitate subsequent research, design, and implementation of effective prevention and intervention strategies and programs targeting bullying and bystander behaviors of children and adolescents. Chapter four presents descriptive statistics for all scaled variables and the results of the inferential statistics used to address each of the three research questions and associated hypotheses for this study. All decisions regarding statistical significance were determined by using a criterion alpha level of .05.

A preamble regarding the IGI-CR is warranted here. Scoring of the social goals measured by the IGI-C (Ojanen et al., 2005) and IGI-CR (Trucco et al., 2013) can be calculated using subscale and/or vector scores (Ojanen et al., 2005). Subscale goal item scores are calculated using ipsatized scale scores (computed from raw scale scores) (e.g., expressed as deviations from their mean score) (Ojanen et al., 2005). Agentic and communal vector scores are calculated for each participant using the formula described in chapter three and can be calculated using raw or ipsatized scale scores. Descriptive statistics for the IGI-CR ipsatized and vector scales are presented in Table 4. Intercorrelations of the IGI-CR raw and ipsatized subscales are presented in Table 5. Means and standard deviations of scaled variables used in the analyses are presented in Table 7.

Table 4

Descriptive Statistics: IGI-CR Ipsatized<sup>a</sup> and Vector Scales

Course				Rar	nge
Source	N	M	SD	Min	Max
Social goal scale (Ipsatized <sup>a</sup> )					
Agentic (+A)	207	0.83	2.76	-8.25	9.13
Agentic-Separate (+A –C)	206	-2.62	3.01	-10.43	4.75
Separate (–C)	205	-1.54	3.29	-11.00	9.88
Submissive-Separate (-A -C)	206	-0.93	3.41	-8.88	9.63
Submissive (–A)	207	-0.53	2.74	-8.50	7.63
Submissive-Communal (-A +C)	207	1.48	2.72	-7.25	8.75
Communal (+C)	207	1.98	2.99	-5.75	9.50
Agentic-Communal (+A +C)	206	1.32	2.61	-5.63	10.38
Vector score					
Agentic	204	0.01	7.68	-22.55	27.55
Communal	202	8.01	9.05	-15.54	29.43

Note. <sup>a</sup> Scores expressed as deviations from their mean score across all of the scales.

Table 5
Intercorrelation Matrix: Raw and Ipsatized<sup>a</sup> IGI-CR Subscales

			1					
	1	2	3	4	5	6	7	8
1. +A	_	.06	20**	23**	33**	29**	04	.13
2. +A –C	.52**	_	.05	04	28**	39**	37**	09
3. –C	.33**	.40**	_	.07	14*	32**	39**	26**
4A -C	.32**	.34**	.36**	_	.16	29**	46**	39**
5. –A	.34**	.26**	.27**	.44**	_	.09	13	30**
6A +C	.41**	.26**	.22**	.25**	.52**	_	.40**	05
7. +C	.51**	.25**	.17*	.13	.40**	.70**	_	.15*
8. +A +C	.62**	.44**	.29**	.22**	.35**	.52**	.59**	_

*Note.* IGI-CR = Interpersonal Goals Inventory for Children—Revised. N = 207. Interpersonal Goal Scale Octants: +A = Agentic; +A - C = Agentic-Separate; -C = Separate; -A - C = Submissive-Separate; -A = Submissive; -A + C = Submissive-Communal; +C = Communal; +A + C = Agentic-Communal. Correlations among the raw Interpersonal Goal subscale scores are reported below the diagonal, and correlations among the Ipsatized Interpersonal Goal Scales are reported above the diagonal.

<sup>&</sup>lt;sup>a</sup> Scores expressed as deviations from their mean score across all the scales p < .05, p < .05



Table 6

Descriptive Statistics: Scaled Variables

Descriptive Statistics. Scarca variation					tual nge	Possible range	
Scale/Subscale	N	M	SD	Min	Max	Min	Max
Interpersonal Goals (IGI-CR)*							
Agentic (+A)	207	2.25	1.05	0.00	4.00	0.00	4.00
Agentic-Separate (+A –C)	207	1.40	0.98	0.00	4.00	0.00	4.00
Separate (–C)	207	1.65	0.99	0.00	4.00	0.00	4.00
Submissive-Separate (-A -C)	207	1.82	1.03	0.00	4.00	0.00	4.00
Submissive (–A)	207	1.91	0.91	0.00	4.00	0.00	4.00
Submissive-Communal (-A +C)	207	2.42	0.98	0.00	4.00	0.00	4.00
Communal (+C)	207	2.54	1.04	0.00	4.00	0.00	4.00
Agentic-Communal (+A +C)	207	2.38	0.99	0.00	4.00	0.00	4.00
Self-efficacy for defending (SED)	207	4.65	1.87	1.00	7.00	1.00	7.00
Moral disengagement (MD)	207	1.62	0.59	1.00	3.23	1.00	4.00
Empathy (BES)							
Total empathy	207	3.50	0.59	2.25	4.80	1.00	5.00
Affective empathy	207	3.34	0.69	1.18	4.82	1.00	5.00
Cognitive empathy	207	3.69	0.67	2.11	5.00	1.00	5.00
Bullying experiences (PEQ)							
Victim							
Overall	207	1.78	0.74	1.00	4.78	1.00	5.00
Verbal	207	2.02	0.99	1.00	5.00	1.00	5.00
Social	207	1.91	0.88	1.00	5.00	1.00	5.00
Physical	207	1.45	0.72	1.00	5.00	1.00	5.00
Bully							
Overall	207	1.34	0.44	1.00	3.33	1.00	5.00
Verbal	207	1.48	0.72	1.00	5.00	1.00	5.00
Social	207	1.37	0.51	1.00	3.50	1.00	5.00
Physical	207	1.20	0.42	1.00	3.33	1.00	5.00
Bully-Victim							
Overall	207	1.56	0.49	1.00	3.61	1.00	5.00
Verbal	207	1.75	0.66	1.00	4.50	1.00	5.00
Social	207	1.64	0.58	1.00	3.75	1.00	5.00
Physical	207	1.33	0.47	1.00	3.00	1.00	5.00
Bystander behavior (SBBS)							
Pro-bully	207	1.45	0.73	1.00	4.00	1.00	5.00
Outsider	207	2.83	1.15	1.00	5.00	1.00	5.00
Defender	207	3.05	1.22	1.00	5.00	1.00	5.00

*Note.* \* = IGI-CR raw subscales. See Table 4 for IGI-CR ipsatized and vector scales.



Table 7

Intercorrelation Matrix: Study Variables

15. Bully Physical	14. Bully Social	13. Bully Verbal	12. Bully Overall	11. Victim Physical	10. Victim Social	<ol><li>Victim Verbal</li></ol>	8. Victim Overall	7. Cognitive Empathy	6. Affective Empathy	5. Total Empathy	4. Moral Disengagement	3. Self-Efficacy Defend	2. Communal Goals	1. Agentic Goals	
.16*	.25**08	.23**09	.26**	09	12	14*	14	.01	14	08	.21**	.24** .19**	.04		1
08	08		10	.02	.02	02	.01	.27**	.39**	.39**	27**08	.19**			2
<u>:</u>	.00	02	04	.00	.05	.01	.03		.39** .19**37** .90**	.39** .25**39**	08				3
.43**13	.41**	.43**	.51**	.12	.01	.02	.05	.25**28**	37**	39**					4
	.41**17*19**09	.43**17*21**07	.51**19**22**10	.03	.07	02	.04	.83**	.90**						5
15*07	19**	21**	22**	.07	.11	.02	.09	.49**							6
07	09	07	10	04	.00	06	03	1							7
.19** .12	.30**	.27**	.32**	.80**	.93**	.85**									~
.12	.30** .17*	.27** .17*	.32** .19**	.80** .56** .59**	.93** .71**										9
.09	.34**	.23**	.29**	.59**	1										10
	.34** .22** .88**	.23** .31** .85**	.34**	1											10 11
.74**	.88**	.85**													12
.34** .74** .52**	.62**	1													13
.44**															14
															15
															16
															17
															18
															19
															20
															21
															22

Note. N = 207. Agentic and communal goals are vector scores. \*p < .05, \*\*p < .01

20. Bystander Pro Bully21. Bystander Outsider22. Bystander Defender

.22\*\*

.45\*\* -.17\*

-.20\*\* -.08

-.32\*\* -.23\*\*

.03

.06

.05

.03

.08

-.18\*

-.08 -.16\*

-.03 -.17\*

.00

.00

-.31\*\* -.25\*\*

-.09

.22\*\*

.48\*\* -.27\*\*

17. Bully-Victim Verbal

-.04

.00

.25\*\*

-.06 -.11

-.10 -.01

.90\*\*

.73\*\*

.76\*\*

.84\*\*

.60\*\*

.63\*\*

.48\*\*

.37\*\*

.87\*\*

.27\*\*

.27\*\*

-04

16. Bully-Victim Overall

18. Bully-Victim Social19. Bully-Victim Physical

.00

-.02

.28\*\* -.04

-.01

-.07 -.08 -.04

.69\*\*

.48\*\*

.49\*\*

.54\*\*

.61\*\*

.67\*\*
.45\*\*

.70\*\*

.70\*\*

.91\*\*

.71\*\*

.53\*\*

.54\*\*

.48\*\*

.32\*\*

.32\*\*

.08

.84\*\*

.02

-.02

9

.19\*\*



# **Research Questions and Hypotheses**

**Research Question 1.** Are there gender and grade differences in person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) for different types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim, bystander)?

H<sub>1.1</sub>: Males will report higher levels of agentic goals, lower levels of communal goals, lower self-efficacy for defending, higher moral disengagement, and lower empathy than females.

**H**<sub>1.2</sub>: Sixth, seventh, and eighth graders will differ in their social goals, self-efficacy for defending, moral disengagement, and empathy.

Simple and marginal means and standard deviations for the variables included in the hypotheses H1.1 and H1.2 are presented in Table 8.

Table 8

Means and Standard Deviations: Person-Level Factors by Gender and Grade

Source	Ma	ale	Fen	nale	Grade total		
Source	$\overline{M}$	SD	M	SD	$\overline{M}$	SD	
Agentic goals*							
Sixth grade	-2.12	6.63	-1.06	7.77	$-1.40_{a}$	7.40	
Seventh grade	2.84	6.76	0.42	5.30	1.71 a	6.19	
Eighth grade	-1.54	8.28	1.22	9.43	0.01	8.99	
Gender Total	0.04	7.55	0.05	7.82			
Communal goals*							
Sixth grade	3.39	8.34	9.52	8.73	7.56	9.02	
Seventh grade	5.39	8.53	9.96	9.17	7.54	9.06	
Eighth grade	4.89	7.39	12.13	9.17	8.95	9.12	
Gender total	4.69	8.06	10.47	8.98			
Self-efficacy for defending							
Sixth grade	5.29	1.55	4.61	1.87	4.83	1.80	
Seventh grade	4.38	1.90	4.42	1.84	4.40	1.86	
Eighth grade	4.15	1.94	5.17	1.90	4.72	1.97	
Gender total	4.55	1.86	4.74	1.88			

**Table 8 Continued** 

Carres	Ma	ale	Fer	nale	Grade total		
Source	$\overline{M}$	SD	$\overline{M}$	SD	$\overline{M}$	SD	
Moral disengagement							
Sixth grade	1.75	0.71	1.57	0.53	1.63	0.59	
Seventh grade	1.87	0.57	1.44	0.48	1.67	0.56	
Eighth grade	1.70	0.70	1.48	0.55	1.58	0.63	
Gender total	1.78	0.65	1.51	0.52			
Affective empathy							
Sixth grade	3.30	0.67	3.44	0.56	3.40	0.59	
Seventh grade	2.90	0.60	3.61	0.74	3.23	0.76	
Eighth grade	2.97	0.61	3.69	0.66	3.37	0.72	
Gender total	3.03	0.64	3.56	0.64			
Cognitive empathy							
Sixth grade	3.49	0.65	3.60	0.71	$3.57_a$	0.69	
Seventh grade	3.45	0.59	3.78	0.55	$3.61_b$	0.59	
Eighth grade	3.79	0.62	3.99	0.73	$3.90_{a,b}$	0.68	
Gender total	3.58	0.63	3.77	0.69			

Note. N = 202; males (n = 86), females (n = 116), sixth grade (n = 72), seventh grade (n = 64), eighth grade (n = 66). \* = Vector scores. Mean differences are significant at or below the indicated significance level are denoted by the same subscript.

A 2 X 3 MANOVA was used to determine if person-level factors (e.g., social goals, self-efficacy for defending, moral disengagement, and empathy) differ by gender and/or grade. Prior to calculating the MANOVA, Box's M test was conducted to test for equality of covariance matrices. Results were statistically significant, Box's M test = 165.13, F(105, 44760) = 1.44, p = .002. However, the F test is known to be robust despite this violation. Pillai's Trace was selected as the preferred statistic because it is considered to be robust in cases with small sample sizes, unequal cell sizes, and/or covariance homogeneity is violated (Hair Jr., Black, Babin, & Anderson, 2010). Table 9 presents the results of the MANOVA.

Table 9
2 X 3 MANOVA: Person-Level Factors by Gender and Grade

Source	Pillai's Trace	F	$df_1, df_2$	p	Partial $\eta^2$
Gender	.20	7.87	6, 191	< .001	.20
Grade	.14	2.31	12, 384	.007	.07
Gender x grade	.10	1.73	12, 384	.058	.05

Results of the MANOVA indicate the interaction was not statistically significant Pillai's Trace = .10, F(12, 384) = 1.73, p = .058, partial  $\eta^2 = .05$ . However, the MANOVA results indicate statistically significant main effects for gender, Pillai's Trace = .20, F(6, 191) = 7.87, p < .001, partial  $\eta^2 = .20$ , and grade, Pillai's Trace = .14, F(12, 384) = 2.31, p = .007, partial  $\eta^2 = .07$ . To determine which of the person-level factors were contributing to the statistically significant main effects, the between subjects analyses were examined. Table 10 presents the results.

Table 10

Between Subjects Analysis: Person-Level Factors by Gender and Grade

Source	$df_1$ , $df_2$	F	p	Partial $\eta^2$
Gender				_
Agentic goals*	1, 196	0.18	.674	.00
Communal goals*	1, 196	22.99	< .001	.11
Self-efficacy for defending	1, 196	0.23	.634	.00
Moral disengagement	1, 196	11.04	.001	.05
Affective empathy	1, 196	32.59	< .001	.14
Cognitive empathy	1, 196	4.99	.027	.03

Table 10 Continued

Source	$df_1, df_2$	F	p	Partial $\eta^2$
Grade				
Agentic goals*	2, 196	2.85	.060	.03
Communal goals*	2, 196	0.92	.401	.01
Self-efficacy for defending	2, 196	1.38	.253	.01
Moral disengagement	2, 196	0.29	.750	.00
Affective empathy	2, 196	0.58	.563	.01
Cognitive empathy	2, 196	4.90	.008	.05
Gender x grade				
Agentic goals*	2, 196	1.94	.146	.02
Communal goals*	2, 196	0.39	.678	.00
Self-efficacy for defending	2, 196	3.38	.036	.03
Moral disengagement	2, 196	0.80	.449	.01
Affective empathy	2, 196	4.3	.015	.04
Cognitive empathy	2, 196	0.48	.617	.01

*Note.* \* = Ipsatized vector score

Between subjects analyses indicated that Levene's test of equality of error variances did not produce statistical significance for any of the dependent variables (p < .05). Therefore, none of the underlying assumptions were violated.

Between subjects analyses revealed statistically significant differences for four of the scales when compared by gender: communal goals, F(1, 196) = 22.99, p < .001, partial  $\eta^2 = .11$ ; moral disengagement, F(1, 196) = 11.04, p = .001, partial  $\eta^2 = .05$ ; affective empathy F(1, 196) = 32.59, p < .001, partial  $\eta^2 = .14$ ; and cognitive empathy F(1, 196) = 4.99, p = .027, partial  $\eta^2 = .03$ , differed for males and females. When compared by grade, one scale was statistically significant: cognitive empathy, F(2, 196) = 4.90, p = .008, partial  $\eta^2 = .05$ . Although the 2 X 3

MANOVA did not reveal a statistically significant interaction: Gender x grade, Pillai's Trace = .10, F(12, 384) = 1.73, p = .058, partial  $\eta^2 = .05$ , between subject analyses results revealed statistically significant interactions for self-efficacy for defending F(2, 196) = 3.38, p = .036, partial  $\eta^2 = .03$ ; and affective empathy F(2, 196) = 4.3, p = .015, partial  $\eta^2 = .04$ .

As a result of the significant interactions for self-efficacy for defending and affective empathy, supplemental analyses were conducted. The results of the 2 X 3 ANOVA (Table 11) and simple effects ANOVA (Table 12) for self-efficacy for defending are presented first.

Table 11
2 X 3 ANOVA: Self-Efficacy for Defending by Gender and Grade

Source	$df_1, df_2$	F	p	Partial $\eta^2$
Gender	1, 201	0.13	.719	.00
Grade	2, 201	1.77	.174	.02
Gender x grade	2, 201	3.23	.042	.03

Levene's test of equality of error variances did not produce statistical significance. Therefore, none of the underlying assumptions were violated: Levene's test, F(5, 201) = 1.01, p = .415. Results of the 2 X 3 ANOVA indicate the main effects for gender, F(1, 201) = 0.13, p = .719, partial  $\eta^2 = .00$ , and grade, F(2, 201) = 1.77, p = .174, partial  $\eta^2 = .02$  were not statistically significant. However, the interaction was statistically significant F(2, 201) = 3.23, p = .042, partial  $\eta^2 = .03$  (See Figure 1). To determine where differences exist, the data file was split by grade, and simple effects one-way ANOVAs were conducted. Results are presented in Table 12.

Table 12
Simple Effects ANOVA: Self-Efficacy for Defending

Source	$df_1, df_2$	F	p	Partial $\eta^2$
Sixth grade	1, 73	2.13	.149	.03
Seventh grade	1, 63	0.02	.882	.00
Eighth grade	1, 65	4.40	.040	.06

For self-efficacy for defending, simple effects one-way ANOVAs indicate that male and female sixth graders, F(1, 73) = 2.13, p = .149, partial  $\eta^2 = .03$ , did not differ significantly. Male and female seventh graders, F(1, 63) = 0.02, p = .882, partial  $\eta^2 = .00$ , did not differ significantly. For eighth graders, F(1, 65) = 4.40, p = .040, partial  $\eta^2 = .06$ , males reported significantly lower self-efficacy for defending than females.

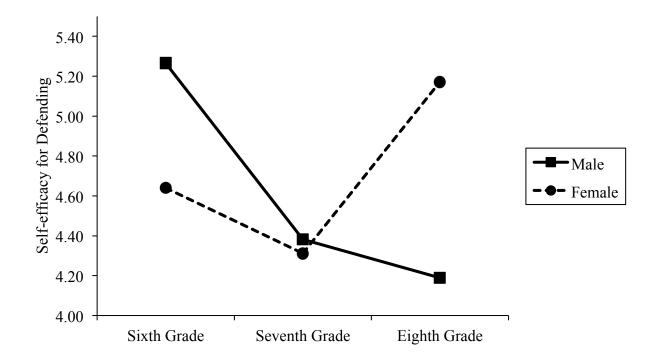


Figure 1. Interaction of gender and grade on self-efficacy for defending.

The results of the 2 X 3 ANOVA (Table 13) and simple effects ANOVA (Table 14) affective empathy follow.

Table 13
2 X 3 ANOVA: Affective Empathy by Gender and Grade

Source	$df_1, df_2$	F	p	Partial $\eta^2$
Gender	1, 201	34.96	< .001	.15
Grade	2, 201	0.47	.625	.01
Gender x grade	2, 201	3.73	.026	.04

Levene's test of equality of error variances did not produce statistical significance. Therefore, none of the underlying assumptions were violated: Levene's test, F(5, 201) = 0.70, p = .623. Results of the 2 X 3 ANOVA indicate the main effect for grade, F(2, 201) = 0.47, p = .625, partial  $\eta^2 = .01$  was not statistically significant. The main effect for gender, F(1, 201) = 34.96, p < .001, partial  $\eta^2 = .15$ , was statistically significant, with males reporting lower levels of affective empathy than females. The interaction was statistically significant F(2, 201) = 3.73, p = .026, partial  $\eta^2 = .04$  (See Figure 2). To determine where differences exist, the data file was split by grade, and simple effects one-way ANOVAs were conducted. Results are presented in Table 14.

Table 14
Simple Effects ANOVA: Affective Empathy

Source	$df_1, df_2$	F	p	Partial $\eta^2$
Sixth grade	1, 73	1.66	.202	.02
Seventh grade	1, 63	19.50	< .001	.24
Eighth grade	1, 65	18.46	< .001	.22

For affective empathy, simple effects one-way ANOVAs was conducted. For sixth graders, although males reported lower affective empathy than females, overall sixth graders, F(1, 73) = 1.66, p = .202, partial  $\eta^2 = .02$ , did not differ significantly. For seventh graders, F(1, 63) = 19.50, p < .001, partial  $\eta^2 = .24$ , males reported significantly lower affective empathy than females. For eighth graders, F(1, 65) = 18.46, p < .001, partial  $\eta^2 = .22$ , males reported significantly lower affective empathy than females.

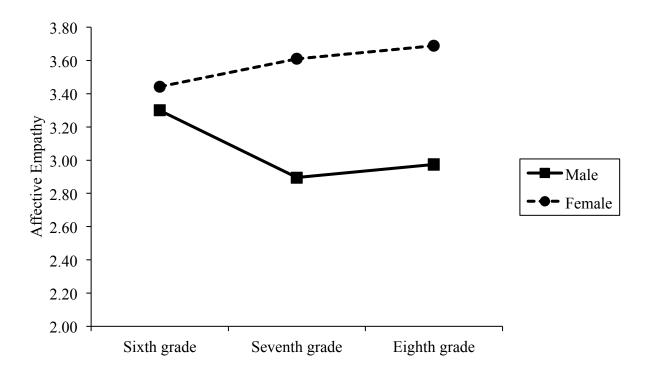


Figure 2. Interaction of gender and grade on affective empathy.

As a result of the statistically significant results presented above, post hoc analyses were conducted. Specifically, Tukey's HSD tests were conducted on all possible pairwise comparisons. The following pairs of groups were found to be statistically different for cognitive empathy (p < .05): sixth graders (M = 3.57, SD = .69) reported significantly lower cognitive empathy than eighth graders (M = 3.90, SD = .68). Seventh graders (M = 3.61, SD = .59)

reported significantly lower cognitive empathy than eighth graders (M = 3.90, SD = .68). Although sixth graders reported lower cognitive empathy than seventh graders, the differences were not statistically significant.

For Research Question 1 regarding gender differences in person-level factors, it was hypothesized (H<sub>1.1</sub>) that males will report higher levels of agentic goals, lower levels of communal goals, lower empathy, lower self-efficacy for defending, and higher moral disengagement, than females. Results partially support hypothesis 1.1. Males reported lower communal goals, lower self-efficacy for defending, higher moral disengagement, and lower affective- and cognitive empathy than females. However, results indicate that males reported lower agentic goals than females, which was opposite from the hypothesis.

For Research Question 1 regarding grade differences in person-level factors, it was hypothesized (H<sub>1,2</sub>) that sixth, seventh, and eighth graders will differ in their social goals, self-efficacy for defending, moral disengagement, and empathy. Hypothesis 1.2 was partially supported. Seventh graders reported significantly more agentic goals than sixth graders. Eighth graders reported significantly higher cognitive empathy than sixth graders. Eighth graders reported significantly higher levels of cognitive empathy than seventh graders. Although seventh graders reported higher levels of cognitive empathy than sixth graders, the differences were not statistically significant. Sixth, seventh, and eighth graders did not differ significantly on communal goals, self-efficacy for defending, moral disengagement, or affective empathy.

To address the second part of Research Question 1 regarding gender and grade differences in different types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim, bystander), it was hypothesized:

 $H_{1.3}$ : Males will report more physical bullying as bullies, victims, and bully-victims than females.

**H**<sub>1.4</sub>: Sixth, seventh, and eighth graders will differ in their levels of types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim, bystander).

Simple and marginal means and standard deviations for the variables included the hypotheses H 1.3 and H 1.4 are presented in Table 15.

Table 15

Means and Standard Deviations: Bully, Victim, and Bystander Behavior by Gender and Grade

Course	Ma	ale	Female		Grade total	
Source	$\overline{M}$	SD	$\overline{M}$	SD	$\overline{M}$	SD
Bully: overall						
Sixth grade	1.43	.64	1.30	.34	1.34	.46
Seventh grade	1.48	.49	1.33	.47	1.41	.48
Eighth grade	1.23	.34	1.28	.37	1.26	.36
Gender total	1.38	.50	1.30	.39		
Bully: verbal						
Sixth grade	1.70	1.15	1.41	.54	1.51	.80
Seventh grade	1.74	.85	1.34	.44	1.55	.71
Eighth grade	1.32	.64	1.43	.61	1.38	.62
Gender total	1.58	.90	1.40	.54		
Bully: social						
Sixth grade	1.42	.66	1.34	.46	1.37	.53
Seventh grade	1.48	.53	1.44	.60	1.46	.56
Eighth grade	1.23	.40	1.32	.46	1.28	.43
Gender total	1.38	.54	1.36	.50		

Table 15 Continued

Cauras	Ma	ale	Female		Grade total	
Source	$\overline{M}$	SD	$\overline{M}$	SD	$\overline{M}$	SD
Bully: physical						
Sixth grade	1.27	.56	1.17	.30	1.20	.41
Seventh grade	1.31	.49	1.18	.51	1.25	.50
Eighth grade	1.18	.40	1.14	.31	1.15	.35
Gender total	1.25	.48	1.16	.37		
Victim: overall						
Sixth grade	1.76	1.03	1.81	.65	1.80	.79
Seventh grade	1.63	.56	1.91	.94	1.76	.77
Eighth grade	1.79	.61	1.78	.70	1.78	.66
Gender total	1.72	.73	1.83	.75		
Victim: verbal						
Sixth grade	2.06	1.15	1.99	.91	2.01	.99
Seventh grade	1.81	.95	2.10	1.08	1.95	1.02
Eighth grade	2.22	1.07	2.03	.87	2.11	.96
Gender total	2.02	1.05	2.03	.94		
Victim: social						
Sixth grade	1.74	1.09	1.96	.81	1.89	.91
Seventh grade	1.62	.57	2.14	1.13	1.87	.92
Eighth grade	1.92	.64	2.01	.91	1.97	.80
Gender total	1.75	.78	2.02	.93		
Victim: physical						
Sixth grade	1.60	1.09	1.50	.60	1.53	.79
Seventh grade	1.52	.68	1.48	.82	1.50	.75
Eighth grade	1.32	.67	1.31	.51	1.31	.58
Gender total	1.48	.81	1.44	.64		



Table 15 Continued

C	Ma	ale	Female		Grade total	
Source	$\overline{M}$	SD	$\overline{M}$	SD	$\overline{M}$	SD
Bully-Victim: overall						
Sixth grade	1.60	.71	1.56	.41	1.57	.53
Seventh grade	1.55	.40	1.62	.60	1.59	.50
Eighth grade	1.51	.36	1.53	.47	1.52	.42
Gender total	1.55	.49	1.56	.48		
Bully-Victim: verbal						
Sixth grade	1.88	.91	1.70	.59	1.76	.71
Seventh grade	1.77	.64	1.72	.61	1.75	.63
Eighth grade	1.77	.61	1.73	.66	1.75	.63
Gender total	1.80	.71	1.71	.61		
Bully-Victim: social						
Sixth grade	1.58	.75	1.65	.51	1.63	.60
Seventh grade	1.55	.43	1.79	.77	1.66	.62
Eighth grade	1.57	.42	1.66	.59	1.62	.52
Gender total	1.56	.53	1.69	.61		
Bully-Victim: physical						
Sixth grade	1.43	.69	1.34	.40	1.37	.51
Seventh grade	1.42	.49	1.33	.57	1.38	.53
Eighth grade	1.25	.38	1.22	.34	1.23	.36
Gender total	1.37	.52	1.30	.44		
Bystander: pro-bully						
Sixth grade	1.30	.51	1.37	.58	1.35	.55
Seventh grade	1.81	.99	1.42	.76	1.62	.90
Eighth grade	1.43	.73	1.40	.67	1.41	.69
Gender total	1.54	.81	1.39	.65		



Table 15 Continued

Carros	Ma	ale	Female		Grade total	
Source	$\overline{M}$	SD	M $SD$		$\overline{M}$	SD
Bystander: outsider						
Sixth grade	2.54	1.17	3.06	.92	2.89	1.04
Seventh grade	2.88	1.24	3.06	1.26	2.97	1.24
Eighth grade	2.87	1.24	2.46	1.10	2.64	1.17
Gender total	2.78	1.22	2.87	1.10		
Bystander: defender						
Sixth grade	3.32	1.29	2.97	1.10	3.09	1.17
Seventh grade	2.78	1.19	2.81	1.09	2.79	1.14
Eighth grade	3.02	1.16	3.43	1.43	3.25	1.32
Gender total	3.01	1.21	3.07	1.23		

Note. N = 207; males (n = 89), females (n = 118), sixth grade (n = 75), seventh grade (n = 65), eighth grade (n = 67). Mean differences are significant at or below the indicated significance level are denoted by the same subscript.

A 2 X 3 MANOVA was used to determine if types of bullying (verbal, social, physical) and experiences (bully, victim, bystander) differ by gender and/or grade. Prior to calculating the MANOVA, Box's M test was conducted to test for equality of covariance matrices. Results were statistically significant, Box's M test = 419.58, F(225, 47343) = 1.64, p < .001. However, the F test is known to be robust despite this violation. Pillai's Trace was selected as the preferred statistic because it is considered to be robust in cases with small sample sizes, unequal cell sizes, and/or covariance homogeneity is violated (Hair Jr. et al., 2010). Table 16 presents the results of the MANOVA.

Table 16
2 X 3 MANOVA: Bully, Victim, (Verbal, Social, Physical) and Bystander Behavior by Gender and Grade

Source	Pillai's Trace	F	$df_1, df_2$	р	Partial $\eta^2$
Gender	.09	2.04	9, 193	.037	.09
Grade	.14	1.65	18, 388	.045	.07
Gender x grade	.11	1.31	18, 388	.180	.06

Results of the MANOVA indicate the interaction was not statistically significant Pillai's Trace = .11, F(18, 388) = 1.31, p = .180, partial  $\eta^2 = .06$ . However, the MANOVA results indicate statistically significant main effects for gender, Pillai's Trace = .09, F(9, 193) = 2.04, p = 0.37, partial  $\eta^2 = .09$ , and grade, Pillai's Trace = .14, F(18, 388) = 1.65, p = .045, partial  $\eta^2 = .07$ . To determine which of the bullying and/or bystander behaviors were contributing to the statistically significant main effects, the between subjects analyses were examined. Table 17 presents the results.

Table 17

Between Subjects Analysis: Bully, Victim, (Verbal, Social, Physical) and Bystander Behavior by Gender and Grade

Source	$df_1, df_2$	F	p	Partial $\eta^2$
Gender				
Bully: verbal	1, 201	3.56	.061	.02
Bully: social	1, 201	0.02	.898	.00
Bully: physical	1, 201	2.21	.139	.01
Victim: verbal	1, 201	0.00	.947	.00
Victim: social	1, 201	4.99	.027	.02
Victim: physical	1, 201	0.24	.622	.00

Table 17 Continued

Source	$df_1, df_2$	F	p	Partial $\eta^2$
Gender (Cont'd)				
Bystander: pro-bully	1, 201	1.27	.261	.01
Bystander: outsider	1, 201	0.37	.545	.00
Bystander: defender	1, 201	0.03	.858	.00
Grade				
Bully: verbal	2, 201	1.30	.274	.01
Bully: social	2, 201	2.16	.118	.02
Bully: physical	2, 201	0.82	.442	.01
Victim: verbal	2, 201	0.48	.620	.01
Victim: social	2, 201	0.30	.743	.00
Victim: physical	2, 201	1.98	.140	.02
Bystander: pro-bully	2, 201	2.63	.074	.03
Bystander: outsider	2, 201	1.22	.297	.01
Bystander: defender	2, 201	2.36	.097	.02
Gender x grade				
Bully: verbal	2, 201	2.40	.094	.02
Bully: social	2, 201	0.51	.602	.01
Bully: physical	2, 201	0.18	.834	.00
Victim: verbal	2, 201	1.03	.361	.01
Victim: social	2, 201	1.05	.353	.01
Victim: physical	2, 201	0.06	.940	.001
Bystander: pro-bully	2, 201	1.86	.159	.02
Bystander: outsider	2, 201	2.82	.062	.03
Bystander: defender	2, 201	1.66	.192	.02

Between subjects analyses indicated that Levene's test of equality of error variances did produce statistical significance for four of the dependent variables: social victimization, Levene's test, F(5, 201) = 3.06, p = .011.; physical victimization, Levene's test, F(5, 201) = 2.50, p = .011.

.032; verbal bullying, Levene's test, F(5, 201) = 4.83, p < .001; and pro-bully behavior, Levene's test, F(5, 201) = 4.83, p < .001. For the remaining dependent variables, Levene's test of equality of error variances did not produce statistical significance. Therefore, none of the underlying assumptions were violated for those dependent variables.

Although the MANOVA revealed a significant main effect for grade, between subjects analysis did not reveal statistically significant differences for any of the individual dependent variables for grade. However, between subjects analyses revealed statistically significant differences for one of the scales when compared by gender: social victimization, F(1, 196) = 22.99, p < .001, partial  $\eta^2 = .11$ . Males reported less social victimization than females.

Due to high correlations between the composite (e.g. bully-victim) and separate bully and victim scales, a separate analysis was conducted. A 2 X 3 MANOVA was used to determine if types of bullying (verbal, social, physical) and experiences of the bully-victim group differ by gender and/or grade. Prior to calculating the MANOVA, Box's M test was conducted to test for equality of covariance matrices. Results were statistically significant, Box's M test = 166.44, F(105, 49946) = 1.46, p = .002. However, the F test is known to be robust despite this violation. Pillai's Trace was selected as the preferred statistic because it is considered to be robust in cases with small sample sizes, unequal cell sizes, and/or covariance homogeneity is violated (Hair Jr. et al., 2010). Table 18 presents the results of the MANOVA.

Table 18
2 X 3 MANOVA: Bully-Victim Group (Verbal, Social, Physical) by Gender and Grade

Source	Pillai's Trace	F	$df_1, df_2$	p	Partial $\eta^2$
Gender	.06	4.45	3, 199	.005	.06
Grade	.04	1.22	6, 400	.294	.02
Gender x grade	.01	0.35	6, 400	.911	.01



Results of the MANOVA indicate the interaction was not statistically significant Pillai's Trace = .01, F(6, 400) = 0.35, p = .911, partial  $\eta^2 = .01$ . The main effect for grade, Pillai's Trace = .04, F(6, 400) = 1.22, p = .294, partial  $\eta^2 = .02$  was not statistically significant. However, the results indicate statistically significant main effect for gender, Pillai's Trace = .06, F(3, 199) = 4.45, p = .005, partial  $\eta^2 = .06$ . To determine which of the bully-victim experiences were contributing to the statistically significant main for, the between subjects analyses were examined. Table 19 presents the results.

Table 19

Between Subjects Analysis: Bully-Victim (Verbal, Social, Physical) Experience by Gender and Grade

Source	$df_1, df_2$	F	p	Partial $\eta^2$
Gender				
Bully-Victim: verbal	1, 201	0.92	.339	.01
Bully-Victim: social	1, 201	2.62	.107	.01
Bully-Victim: physical	1, 201	1.07	.302	.01
Grade				
Bully-Victim: verbal	2, 201	0.10	.909	.00
Bully-Victim: social	2, 201	0.17	.844	.00
Bully-Victim: physical	2, 201	2.06	.130	.02
Gender x grade				
Bully-Victim: verbal	2, 201	0.23	.795	.00
Bully-Victim: social	2, 201	0.41	.666	.00
Bully-Victim: physical	2, 201	0.09	.130	.00

Although the MANOVA indicates that males and females differ on their overall bully-victim experience, no statistical differences were found on the individual dependent variables.

With regard to Research Question 1 and gender differences in bullying experiences and bystander behaviors, the hypothesis  $(H_{1.3})$  that males will report more physical bullying as

bullies, victims, and bully-victims than females was not supported. Although males reported higher levels of physical bullying as bullies, victims, and bully-victims than females, the differences were not statistically significant.

With regard to Research Question 1 and grade differences in bullying experiences and bystander behaviors, the hypothesis ( $H_{1.4}$ ) that sixth, seventh, and eighth graders will differ in their levels of types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim, bystander) was not supported. Sixth, seventh, and eighth graders did not differ significantly in types of bullying (verbal, social, physical) or experiences (bully, victim, bully-victim, bystander).

**Research Question 2.** Which person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) are most predictive of bullying experience (bully, victim, bully-victim) and bystander behavior in middle school students?

**H**<sub>2.1</sub>: Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict bullying (verbal, social, physical).

Separate multiple regression analyses were conducted for each bully perpetration criterion variable using agentic goals, communal goals, self-efficacy for defending, moral disengagement, affective empathy, and cognitive empathy as the predictor variables.

For verbal bullying, results are presented in Table 20. The overall regression model was found to be significant and accounted for 22% of the variance in verbal bullying, F(6, 195) = 9.01, p < .001. Regarding the individual predictors, agentic goals, b = 0.01,  $\beta = .14$ , t(195) = 2.09, p = .038, was significantly associated with verbal bullying. The positive direction of the relationship indicates that individuals with higher levels of agentic goals were more likely to engage in verbal bullying. Moral disengagement, b = 0.48,  $\beta = .40$ , t(195) = 5.62, p < .001, was

significantly associated with verbal bullying. The positive direction of the relationship indicates that individuals with higher levels of moral disengagement were more likely to engage in verbal bullying. The remaining predictors were not statistically significant. These results provide partial support for the hypothesis  $(H_{2.1})$  that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict verbal bullying.

Table 20

Multiple Linear Regression Analysis: Verbal Bullying

Predictor variable	b	β	t	p
Constant	0.68		1.81	.072
Agentic goals	0.01	.14	2.09	.038
Communal goals	0.00	.03	0.38	.705
Self-efficacy for defending	-0.01	04	-0.52	.606
Moral disengagement	0.48	.40	5.62	< .001
Affective empathy	-0.10	10	-1.27	.207
Cognitive empathy	0.11	.11	1.42	.158
$R^2$	.22			
F	9.01			< .001

*Note.* N = 202.

For social bullying, results are presented in Table 21. The overall regression model was found to be significant and accounted for 20% of the variance in social bullying, F(6, 195) = 8.24, p < .001. Regarding the individual predictors, agentic goals, b = 0.01,  $\beta = .17$ , t(195) = 2.51, p = .013, was significantly associated with social bullying. The positive direction of the relationship indicates that individuals with higher levels of agentic goals were more likely to engage in social bullying. Moral disengagement, b = 0.33,  $\beta = .37$ , t(195) = 5.25, p < .001, was significantly associated with verbal bullying. The positive direction of the relationship indicates

that individuals with higher levels of moral disengagement were more likely to engage in social bullying. The remaining predictors were not statistically significant. These results provide partial support for the hypothesis (H<sub>2.1</sub>) that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict social bullying.

Table 21

Multiple Linear Regression Analysis: Social Bullying

Predictor variable	b	eta	t	p
Constant	0.86		3.17	.002
Agentic goals	0.01	.17	2.51	.013
Communal goals	0.00	.03	0.41	.685
Self-efficacy for defending	-0.01	02	-0.28	.778
Moral disengagement	0.33	.37	5.25	< .001
Affective empathy	-0.04	06	-0.68	.497
Cognitive empathy	0.03	.04	0.56	.573
$R^2$	.20			
F	8.24			< .001

*Note.* N = 202.

For physical bullying, results are presented in Table 22. The overall regression model was found to be significant and accounted for 21% of the variance in physical bullying, F(6, 195) = 8.39, p < .001. Regarding the individual predictors, the one variable found to be significant within the model was moral disengagement, b = 0.31,  $\beta = .43$ , t(195) = 6.04, p < .001. The positive direction of the relationship indicates that individuals with higher levels of moral disengagement were more likely to engage in physical bullying. The remaining predictors were not statistically significant. These results provide partial support for the hypothesis  $(H_{2.1})$  that

person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict physical bullying.

Table 22

Multiple Linear Regression Analysis: Physical Bullying

Predictor variable	b	β	t	p
Constant	0.65		2.92	.004
Agentic goals	0.01	.10	1.43	.154
Communal goals	0.00	.03	0.47	.638
Self-efficacy for defending	-0.03	13	-1.87	.064
Moral disengagement	0.31	.43	6.04	< .001
Affective empathy	0.01	.01	0.18	.860
Cognitive empathy	0.04	.07	0.86	.392
$R^2$	.21			
F	8.39			< .001

*Note.* N = 202.

**H**<sub>2.2</sub>: Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict victimization (verbal, social, physical).

Separate multiple regression analyses were conducted for each victimization criterion variable using agentic goals, communal goals, self-efficacy for defending, moral disengagement, affective empathy, and cognitive empathy as the predictor variables.

For verbal victimization, results are presented in Table 23. The overall regression model was not found to be significant and accounted for 2% of the variance in verbal victimization, F(6, 195) = 0.81, p = .564. Regarding the individual predictors, none of the predictor variables were found to be statistically significant. These results do not support for the hypothesis (H<sub>2.2</sub>)

that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict verbal victimization.

Table 23

Multiple Linear Regression Analysis: Verbal Victimization

Predictor variable	b	β	t	p
Constant	1.89		3.34	.001
Agentic goals	-0.02	15	-1.91	.058
Communal goals	0.00	01	-0.18	.861
Self-efficacy for defending	0.03	.05	0.65	.518
Moral disengagement	0.08	.05	0.59	.559
Affective empathy	0.07	.05	0.57	.567
Cognitive empathy	-0.10	07	-0.79	.433
$R^2$	.02			
F	0.81			.564

*Note.* N = 202.

For social victimization, results are presented in Table 24. The overall regression model was not found to be significant and accounted for 3% of the variance in social victimization, F(6, 195) = 1.11, p = .359. Regarding the individual predictors, none of the predictor variables were found to be statistically significant. These results do not support for the hypothesis (H<sub>2.2</sub>) that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict social victimization.

Table 24

Multiple Linear Regression Analysis: Social Victimization

Predictor variable	b	β	t	p
Constant	1.24		2.44	.016
Agentic goals	-0.02	13	-1.69	.092
Communal goals	0.00	02	-0.20	.843
Self-efficacy for defending	0.03	.06	0.80	.427
Moral disengagement	0.10	.07	0.89	.373
Affective empathy	0.18	.14	1.59	.113
Cognitive empathy	-0.06	05	-0.54	.592
$R^2$	.03			
F	1.11			.359

*Note.* N = 202.

For physical victimization, results are presented in Table 25. The overall regression model was not found to be significant and accounted for 5% of the variance in physical victimization, F(6, 195) = 1.50, p = .173. Regarding the individual predictors, the one variable found to be significant within the model was moral disengagement, b = 0.22,  $\beta = .18$ , t(195) = 2.31, p = .022. The remaining predictors were not statistically significant. These results do not support for the hypothesis (H<sub>2.2</sub>) that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict physical victimization.

Table 25

Multiple Linear Regression Analysis: Physical Victimization

Predictor variable	b	β	t	p
Constant	0.78		1.88	.062
Agentic goals	-0.01	11	-1.51	.134
Communal goals	0.00	.03	0.39	.699
Self-efficacy for defending	0.01	.02	0.30	.766
Moral disengagement	0.22	.18	2.31	.022
Affective empathy	0.16	.15	1.69	.092
Cognitive empathy	-0.07	06	-0.78	.437
$R^2$	.05			
F	1.50			.173

*Note.* N = 202.

**H**<sub>2,3</sub>: Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict bully-victim experience (verbal, social, physical).

Separate multiple regression analyses were conducted for each bully-victim variable using agentic goals, communal goals, self-efficacy for defending, moral disengagement, affective empathy, and cognitive empathy as the predictor variables.

For verbal bully-victim experience, results are presented in Table 26. The overall regression model was found to be significant and accounted for 6% of the variance in verbal bully-victim experience, F(6, 195) = 2.20, p = .045. Only moral disengagement, b = 0.28,  $\beta = .26$ , t(195) = 3.30, p = .001, was significantly associated with verbal bully-victims. The positive direction of the relationship indicates that individuals with higher levels of moral disengagement were more likely to be verbal bully-victims. The remaining predictors were not statistically significant. These results provide partial support for the hypothesis (H<sub>2.3</sub>) that person-level

factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict verbal bully-victim experience.

Table 26

Multiple Linear Regression Analysis: Verbal Bully-Victim

Predictor variable	b	β	t	p
Constant	1.29		3.49	.001
Agentic goals	0.00	03	-0.41	.684
Communal goals	0.00	.00	0.06	.955
Self-efficacy for defending	0.01	.02	0.24	.813
Moral disengagement	0.28	.26	3.30	.001
Affective empathy	-0.02	02	-0.20	.842
Cognitive empathy	0.01	.01	0.11	.911
$R^2$	.06			
F	2.20			.045

*Note.* N = 202.

For social bully-victim experience, results are presented in Table 27. The overall regression model was not found to be significant and accounted for 4% of the variance in social bully-victim experience, F(6, 195) = 1.45, p = .198. Only moral disengagement, b = 0.22,  $\beta = .22$ , t(195) = 5.25, p = .005, was significant. The remaining predictors were not statistically significant. These results provide partial support for the hypothesis (H<sub>2.3</sub>) that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict social bully-victim experience.

Table 27

Multiple Linear Regression Analysis: Social Bully-Victim

Predictor variable	b	β	t	p
Constant	1.05		3.16	.002
Agentic goals	0.00	02	-0.26	.793
Communal goals	0.00	.00	0.01	.989
Self-efficacy for defending	0.01	.04	0.49	.624
Moral disengagement	0.22	.22	2.83	.005
Affective empathy	0.07	.08	0.94	.351
Cognitive empathy	-0.01	02	-0.18	.859
$R^2$	.04			
F	1.45			.198

*Note.* N = 202.

For physical bully-victim experience, results are presented in Table 28. The overall regression model was found to be significant and accounted for 9% of the variance in physical bully-victim experience, F(6, 195) = 3.31, p = .004. Moral disengagement, b = 0.26,  $\beta = .33$ , t(195) = 3.31, p = .004, was significantly associated with physical bully-victims. The positive direction of the relationship indicates that individuals with higher levels of moral disengagement were more likely to report physical bully-victim experiences. The remaining predictors were not statistically significant. These results provide partial support for the hypothesis (H<sub>2.3</sub>) that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict physical bully-victim experience.

Table 28

Multiple Linear Regression Analysis: Physical Bully-Victim

Predictor variable	b	eta	t	p
Constant	0.71		2.67	.008
Agentic goals	0.00	04	-0.57	.569
Communal goals	0.00	.04	0.50	.620
Self-efficacy for defending	-0.01	04	-0.55	.585
Moral disengagement	0.26	.33	4.31	< .001
Affective empathy	0.08	.12	1.39	.167
Cognitive empathy	-0.01	02	-0.25	.805
$R^2$	.09			
F	3.31			.004

*Note.* N = 202.

**H**<sub>2.4</sub>: Person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) will predict bystander behavior (pro-bully, outsider, defender).

Separate multiple regression analyses were conducted for each bystander criterion variable using agentic goals, communal goals, self-efficacy for defending, moral disengagement, affective empathy, and cognitive empathy as the predictor variables.

For pro-bully bystander behavior, results are presented in Table 29. The overall regression model was found to be significant and accounted for 26% of the variance in pro-bully bystander behavior, F(6, 195) = 11.65, p < .001. Self-efficacy for defending, b = -0.06,  $\beta = -.15$ , t(195) = -2.25, p = .026, was significantly associated with pro-bully bystander behavior. The negative direction of the relationship indicates that individuals with lower levels of self-efficacy for defending were more likely to engage in pro-bully bystander behavior. Moral disengagement, b = 0.51,  $\beta = .41$ , t(195) = 5.94, p < .001, was significantly associated with pro-bully bystander

behavior. The positive direction of the relationship indicates that individuals with higher levels of moral disengagement were more likely to engage in pro-bully bystander behavior. The remaining predictors were not statistically significant. These results provide partial support for the hypothesis (H<sub>2,4</sub>) that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict pro-bully bystander behavior.

Table 29

Multiple Linear Regression Analysis: Pro-Bully Bystander

Predictor variable	b	β	t	p
Constant	1.08		2.91	.004
Agentic goals	0.01	.12	1.78	.077
Communal goals	0.00	01	-0.18	.854
Self-efficacy for defending	-0.06	15	-2.25	.026
Moral disengagement	0.51	.41	5.94	< .001
Affective empathy	-0.13	12	-1.52	.129
Cognitive empathy	0.07	.06	0.87	.385
$R^2$	.26			
F	11.65			< .001

*Note.* N = 202.

For outsider bystander behavior, results are presented in Table 30. The overall regression model was found to be significant and accounted for 18% of the variance in outsider bystander behavior, F(6, 195) = 7.16, p < .001. Self-efficacy for defending, b = -0.20,  $\beta = -.33$ , t(195) = -4.64, p < .001, was significantly associated with outsider bystander behavior. The negative direction of the relationship indicates that individuals with lower levels of self-efficacy for defending were more likely to engage in outsider bystander behavior. Moral disengagement, b = -0.46,  $\beta = -.24$ , t(195) = -3.28, p = .001, was significantly associated with outsider bystander

behavior. The negative direction of the relationship indicates that individuals with lower levels of moral disengagement were more likely to engage in outsider bystander behavior. The remaining predictors were not statistically significant. These results provide partial support for the hypothesis (H<sub>2.4</sub>) that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict outsider bystander behavior.

Table 30

Multiple Linear Regression Analysis: Outsider Bystander

Predictor variable	b	β	t	p
Constant	4.29		7.02	< .001
Agentic goals	-0.01	06	-0.79	.433
Communal goals	-0.01	10	-1.35	.178
Self-efficacy for defending	-0.20	33	-4.64	< .001
Moral disengagement	-0.46	24	-3.28	.001
Affective empathy	0.12	.07	0.85	.396
Cognitive empathy	-0.02	01	-0.15	.885
$R^2$	.18			
F	7.16			< .001

*Note.* N = 202.

For defender bystander behavior, results are presented in Table 31. The overall regression model was found to be significant and accounted for 23% of the variance in defender bystander behavior, F(6, 195) = 9.93, p < .001. Self-efficacy for defending, b = 0.27,  $\beta = .42$ , t(195) = 6.13, p < .001, was significantly associated with defender bystander behavior. The positive direction of the relationship indicates that individuals with higher levels of self-efficacy for defending were more likely to engage in defender bystander behavior. The remaining predictors were not statistically significant. These results provide partial support for the hypothesis (H<sub>2.4</sub>)

that person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) predict defender bystander behavior.

Table 31

Multiple Linear Regression Analysis: Defender Bystander

Predictor variable	b	β	t	p
Constant	1.37		2.19	.030
Agentic goals	-0.01	06	-0.94	.351
Communal goals	0.01	.10	1.43	.155
Self-efficacy for defending	0.27	.42	6.13	< .001
Moral disengagement	-0.14	07	-0.95	.345
Affective empathy	0.04	.02	0.28	.783
Cognitive empathy	0.11	.06	0.83	.407
$R^2$	.23			
F	9.93			< .001

*Note.* N = 202.

**Research Question 3.** How does the relationship between empathy and bullying vary based on gender and grade?

**H**<sub>3.1</sub>: There will be a main effect for empathy (affective, cognitive) and bullying (overall, verbal, social, physical), such that the relationship will be negative.

Separate multiple regression analyses were conducted for each bully perpetration criterion variable using affective empathy and cognitive empathy as the predictor variables.

For overall bullying, results are presented in Table 32. The overall regression model was found to be significant and accounted for 5% of the variance in overall bullying, F(2, 204) = 5.30, p = .006. Affective empathy, b = -0.15,  $\beta = -0.23$  t(195) = -2.94, p = .004, was significantly associated with overall bullying. The negative direction of the relationship indicates that

individuals with lower levels of affective empathy were more likely to engage in bullying. Cognitive empathy was not statistically significant. These results provide partial support for the hypothesis  $(H_{3.1})$  that empathy predicts overall bullying. However, only affective empathy was a significant negative predictor of overall bullying.

Table 32

Multiple Linear Regression Analysis: Overall Bullying on Empathy

Predictor variable	b	β	t	p
Constant	1.78		9.69	< .001
Affective empathy	-0.15	23	-2.94	.004
Cognitive empathy	0.01	.02	0.23	.819
$R^2$	.05			
F	5.30			.006

*Note.* N = 207.

For verbal bullying, results are presented in Table 33. The overall regression model was found to be significant and accounted for 5% of the variance in verbal bullying, F(2, 204) = 4.97, p = .008. Affective empathy, b = -0.24,  $\beta = -.24$ , t(204) = -3.00, p = .003, was significantly associated with verbal bullying. The negative direction of the relationship indicates that individuals with lower levels of affective empathy were more likely to engage in verbal bullying. Cognitive empathy was not statistically significant. These results provide partial support for the hypothesis  $(H_{3.1})$  that empathy predicts verbal bullying. However, only affective empathy was a significant negative predictor of verbal bullying.

Table 33

Multiple Linear Regression Analysis: Verbal Bullying on Empathy

Predictor variable	b	β	t	p
Constant	2.10		6.98	< .001
Affective empathy	-0.24	24	-3.00	.003
Cognitive empathy	0.05	.05	0.63	.530
$R^2$	.05			
F	4.97			.008

*Note.* N = 207.

For social bullying, results are presented in Table 34. The overall regression model was found to be significant and accounted for 4% of the variance in social bullying, F(2, 204) = 3.89, p = .022. Affective empathy, b = -0.14,  $\beta = -.19$ , t(204) = -2.44, p = .016, was significantly associated with social bullying. The negative direction of the relationship indicates that individuals with lower levels of affective empathy were more likely to engage in social bullying. Cognitive empathy was not statistically significant. These results provide partial support for the hypothesis  $(H_{3.1})$  that empathy predicts social bullying. However, only affective empathy was a significant negative predictor of social bullying

Table 34

Multiple Linear Regression Analysis: Social Bullying on Empathy

Predictor variable	b	β	t	p
Constant	1.84		8.51	< .001
Affective empathy	-0.14	19	-2.44	.016
Cognitive empathy	0.00	.00	0.01	.993
$R^2$	.04			
F	3.89			.022

*Note.* N = 202.



For physical bullying, results are presented in Table 35. The overall regression model was not found to be significant and accounted for 26% of the variance in pro-bully bystander behavior, and accounted for 2% of the variance in physical bullying, F(2, 204) = 2.21, p = .112. Regarding the individual predictors, affective and cognitive empathy were not statistically significant.

Table 35

Multiple Linear Regression: Physical Bullying on Empathy

Predictor variable	b	β	t	p
Constant	1.50		8.44	< .001
Affective empathy	-0.09	14	-1.81	.072
Cognitive empathy	0.00	.00	-0.05	.961
$R^2$	.02			
F	2.21			.112

*Note.* N = 202.

**H**<sub>3.2</sub>: Gender will moderate the relationship between total empathy and overall bullying, such that the relationship will be strong for females, and the relationship will be weak for males.

Two-step moderated multiple regression analyses were conducted to test the hypotheses that gender will moderate the relationship between total empathy and bullying. Identical procedures were used for all moderated multiple regression analyses. Gender was dummy coded (male = 1, female = 0) for all moderated regression analyses. For the criterion variable (e.g., overall bullying), the predictor variable, empathy (e.g., total, affective, or cognitive), and the gender dummy variable were simultaneously entered into the first regression model (e.g., model 1). Next, to test for moderation effects of gender, a product term, total empathy by gender

dummy, was entered into the regression model at step 2 (e.g., model 2). Therefore, two regression analyses were conducted for each bully perpetration variable.

For overall bullying on total empathy by gender, results are presented in Table 36. Results indicated that the main effect of total empathy and gender accounted for 4% of the variance in overall bullying, F(2, 204) = 3.99, p = .020. This model is significant. Total empathy is a significant negative predictor, b = -0.14,  $\beta = -.18$ , t(204) = -2.50, p = .013. Gender is not a significant predictor, indicating a non-significant difference between the males and females on overall bullying, b = 0.03,  $\beta = .03$ , t(204) = -0.45, p = .654.

Results also indicated that the interaction between total empathy and gender on overall bullying was significant,  $\Delta F(1, 203) = 14.49$ , b = -0.43,  $\beta = -1.61$ , t(203) = -3.81, p < .001. The interaction accounted for an additional 6% of the variance in verbal bullying.

Table 36

Moderated Multiple Regression Analyses: The Moderating Effect of Gender on the Relationship Between Total Empathy and Overall Bullying

		Overall	bullying	
Predictor variable	b	β	t	p
Model 1				
Constant	1.80		8.88	< .001
Total empathy	-0.14	18	-2.50	.013
Gender	0.03	.03	0.45	.654
F	3.99			.020
$R^2$	.04			

Table 36 Continued

	Overall bullying				
Predictor variable	b	β	t	p	
Model 2					
Constant	1.29		5.43	< .001	
Total empathy	0.00	.01	0.06	.952	
Gender	1.48	1.67	3.83	< .001	
Total empathy x gender	-0.43	-1.61	-3.81	< .001	
$\Delta F$	14.49			< .001	
$\Delta R^2$	.06				
F	7.67			.020	
$R^2$	.10				

*Note.* N = 207. Model 1:  $df_1 = 2$ ,  $df_2 = 204$ ; Model 2:  $df_1 = 1$ ,  $df_2 = 203$ 

Because the results suggest a significant interaction between total empathy and gender on overall bullying, separate regression analyses based on male versus female were conducted using total empathy to predict overall bullying. Results are presented in Table 37.

For male, results indicate that total empathy accounted for 10% of the variance in verbal bullying, F(1, 87) = 17.62, p < .001. This model is significant. Total empathy is a significant negative predictor for males, b = -0.42,  $\beta = -.41$ , t(87) = -4.20, p < .001.

For female, results indicate that total empathy did not account for a significant portion of the variance (0%) in overall bullying, F(1, 116) = 0.00, p = .948. Total empathy is not a significant predictor of overall bullying for females, b = 0.00,  $\beta = 0.01$ , t(116) = 0.07, p = .948.

These results do not support the hypothesis (H<sub>3,2</sub>) that gender will moderate the relationship between total empathy and overall bullying, such that the relationship will be strong for females and weak for males. Although gender does moderate the relationship between total

empathy and overall bullying, the effect of total empathy on overall bullying is stronger for males than females. Results indicate that gender significantly moderates the relationship between total empathy and overall bullying, such that the relationship is significantly negative for males and not significant for females.

Table 37
Simple Slope Analyses: The Relationship between Overall Bullying and Total Empathy by Gender

		Overall	bullying	
Predictor variable	b	β	t	p
Total Empathy				
Constant	2.77		8.30	< .001
Male	-0.42	41	-4.20	<.001
F	17.62			<.001
$R^2$	.17			
Total Empathy				
Constant	1.29		5.89	< .001
Female	0.00	.01	0.07	.948
F	0.00			.948
$R^2$	.00			

*Note.* Male (n = 89):  $df_1 = 1$ ,  $df_2 = 87$ ; Female (n = 118):  $df_1 = 1$ ,  $df_2 = 116$ 

**H**<sub>3.3</sub>: Gender will moderate the relationship between affective empathy and overall bullying, such that the relationship will be strong for females, and the relationship will be weak for males.



For overall bullying on affective empathy by gender, results are presented in Table 38. Results indicated that the main effect of affective empathy and gender accounted for 5% of the variance in overall bullying, F(2, 204) = 5.28, p = .006. This model is significant. Affective empathy is a significant negative predictor, b = -0.14,  $\beta = -.22$ , t(204) = -2.97, p = .003. The gender dummy variable is not a significant predictor, indicating a non-significant difference between males and females on overall bullying, b = 0.01,  $\beta = .01$ , t(204) = 0.08, p = .933.

Results indicated that the interaction between affective empathy and gender on overall bullying was significant,  $\Delta F(1, 203) = 7.44$ , b = -0.26,  $\beta = -.91$ , t(203) = -2.73, p = .007. The interaction accounted for an additional 3% of the variance in overall bullying.

Table 38

Moderated Multiple Regression Analyses: The Moderating Effect of Gender on the Relationship Between Affective Empathy and Overall Bullying

		Overall bullying			
Predictor variable	<i>b</i>	β	t	p	
Model 1					
Constant	1.80		10.43	< .001	
Affective empathy	-0.14	22	-2.97	.003	
Gender	0.01	.01	0.08	.933	
F	5.28			.006	
$R^2$	.05				

Table 38 Continued

	Overall bullying				
Predictor variable	b	β	t	p	
Model 2					
Constant	1.41		6.37	< .001	
Affective empathy	-0.03	05	-0.51	.614	
Gender	0.84	.95	2.69	.008	
Affective Empathy x gender	-0.26	91	-2.73	.007	
$\Delta F$	7.44			.007	
$\Delta R^2$	.03				
F	6.11			.001	
$R^2$	.08				

*Note.* N = 207. Model 1:  $df_1 = 2$ ,  $df_2 = 204$ ; Model 2:  $df_1 = 1$ ,  $df_2 = 203$ 

Because the results suggest a significant interaction between affective empathy and gender on overall bullying, separate regression analyses based on male versus female were conducted using affective empathy to predict overall bullying. Results are presented in Table 39.

For male, results indicate that affective empathy accounted for 13% of the variance in overall bullying, F(1, 87) = 13.26, p < .001. This model is significant. Affective empathy is a significant negative predictor for males, b = -0.29,  $\beta = -.36$ , t(87) = -3.64, p < .001.

For female, results indicate that affective empathy did not account for a significant portion of the variance (0%) in overall bullying, F(1, 116) = 0.31, p = .581. Affective empathy is not a significant predictor of overall bullying for females, b = -0.03,  $\beta = -.05$ , t(116) = -0.55, p = .581.

These results do not support the hypothesis (H<sub>3,3</sub>) that gender will moderate the relationship between affective empathy and overall bullying, such that the relationship will be



strong for females and weak for males. Although gender does moderate the relationship between affective empathy and overall bullying, the effect of affective empathy on overall bullying is stronger for males than females. Results indicate that gender significantly moderates the relationship between affective empathy and overall bullying, such that the relationship is significantly negative for males and not significant for females

Table 39
Simple Slope Analyses: The Relationship between Overall Bullying and Affective Empathy by Gender

		Overall	bullying	
Predictor variable	b	β	t	p
Affective Empathy				
Constant	2.25		9.23	< .001
Male	-0.29	36	-3.64	< .001
F	13.26			< .001
$R^2$	.13			
Affective Empathy				
Constant	1.41		6.99	< .001
Female	-0.03	05	-0.55	.581
F	0.31			.581
$R^2$	.00			

Note. Male (n = 89):  $df_1 = 1$ ,  $df_2 = 87$ ; Female (n = 118):  $df_1 = 1$ ,  $df_2 = 116$ 

H<sub>3.4</sub>: Gender will moderate the relationship between cognitive empathy and overall bullying, such that the relationship will be strong for males, and the relationship will be weak for females.



For overall bullying on cognitive empathy by gender, results are presented in Table 40. Results indicated that the main effect of cognitive empathy and gender accounted for 2% of the variance in overall bullying, F(2, 204) = 1.56, p = .213. This model is not statistically significant. Cognitive empathy is a not a statistically significant predictor, b = -0.06,  $\beta = -.08$ , t(204) = -1.20, p = .234. The gender dummy variable is not a statistically significant predictor, indicating a non-significant difference between the males and females on overall bullying, b = 0.07,  $\beta = .08$ , t(204) = 1.12, p = .264.

Results indicated that the interaction between cognitive empathy and gender on overall bullying was significant,  $\Delta F(1, 203) = 6.86$ , b = -0.25,  $\beta = -1.02$ , t(203) = -2.62, p = .009. The interaction accounted for an additional 3% of the variance in overall bullying.

Table 40

Moderated Multiple Regression Analyses: The Moderating Effect of Gender on the Relationship Between Cognitive Empathy and Overall Bullying

		Overall bullying			
Predictor variable	b	β	t	p	
Model 1					
Constant	1.51		8.43	< .001	
Cognitive empathy	-0.06	08	-1.20	.234	
Gender	0.07	.08	1.12	.264	
F	1.56			.213	
$R^2$	.02				

Table 40 Continued

	Overall bullying				
Predictor variable	b	β	t	p	
Model 2					
Constant	1.15		5.16	< .001	
Cognitive empathy	0.04	.06	0.68	.499	
Gender	0.97	1.09	2.78	.006	
Cognitive empathy x gender	-0.25	-1.02	-2.62	.009	
$\Delta F$	6.86			.009	
$\Delta R^2$	.03				
F	3.36			.020	
$R^2$	.05				

*Note.* N = 207. Model 1:  $df_1 = 2$ ,  $df_2 = 204$ ; Model 2:  $df_1 = 1$ ,  $df_2 = 203$ 

Because the results suggest a significant interaction between cognitive empathy and gender on overall bullying, separate regression analyses based on male versus female were conducted using cognitive empathy to predict overall bullying. Results are presented in Table 41.

For male, results indicate that cognitive empathy accounted for 7% of the variance in overall bullying, F(1, 87) = 6.20, p = .015. This model is statistically significant. Cognitive empathy is a statistically significant negative predictor for males, b = -0.21,  $\beta = -.26$ , t(87) = -2.49, p = .015.

For female, results indicate that cognitive empathy did not account for a significant portion of the variance (1%) in overall bullying, F(1, 116) = 0.58, p = .450. Cognitive empathy is not a significant predictor of overall bullying for females, b = 0.05,  $\beta = .07$ , t(116) = 0.76, p = .450.



These results provide support the hypothesis (H<sub>3.4</sub>) that gender will moderate the relationship between cognitive empathy and overall bullying, such that the relationship will be strong for males and weak for females. The effect of cognitive empathy on overall bullying is stronger for males than females. Results indicate that gender significantly moderates the relationship between cognitive empathy and overall bullying, such that the relationship is significantly negative and stronger for males and not significant and weaker for females.

Table 41
Simple Slope Analyses: The Relationship between Overall Bullying and Cognitive Empathy by Gender

		Overall	bullying	
Predictor variable	b	β	t	p
Male				
Constant	2.12		7.04	< .001
Cognitive empathy	-0.21	258	-2.49	.015
F	6.20			.015
$R^2$	.07			
Female				
Constant	0.20		5.78	< .001
Cognitive empathy	0.05	.070	0.76	.450
F	0.58			.450
$R^2$	.01			

*Note.* Male (n = 89):  $df_1 = 1$ ,  $df_2 = 87$ ; Female (n = 118):  $df_1 = 1$ ,  $df_2 = 116$ 

**H**<sub>3.5</sub>: Grade will moderate the relationship between empathy (overall, affective, cognitive) and bullying (overall, verbal, social, physical) such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades.

Two-step moderated multiple regression analyses were conducted to test the hypotheses that grade will moderate the relationship between empathy and bullying. Identical procedures were used for all moderated multiple regression analyses. Grade was dummy coded [eighth grade (6=0) (7=0) (8=1); seventh grade (6=0) (7=1) (8=0)]. Sixth grade was selected as the referent category and coded as zero (0) on both of the grade dummy variables. Grade dummy 1 represents eighth grade, and grade dummy 2 represents seventh grade. The same dummy coding scheme was used for all moderated multiple regression analyses. For the criterion variable (e.g., bullying: overall, verbal, social, or physical), the predictor variable empathy (e.g., total, affective, or cognitive) and grade (e.g., grade dummy 1 and grade dummy 2) were simultaneously entered into the first regression model (e.g., model 1). Next, to test for moderation effects of grade, product terms, empathy by eighth grade and empathy by seventh grade (e.g., grade dummy 1 and grade dummy 2), were entered into the regression model at step 2 (e.g., model 2). Therefore, two regression analyses were conducted for each bullying criterion variable.

For overall bullying on total empathy by grade, results are presented in Table 42. Results indicate that the main effect of total empathy and grade accounted for 5% of the variance in overall bullying, F(3, 203) = 3.48, p = .017. This model is significant. Total empathy is a significant negative predictor, b = -0.13,  $\beta = -.18$ , t(203) = -2.54, p = .012. The eighth grade dummy variable is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on overall bullying, b = -0.07,  $\beta = -.07$ , t(203) = -0.89, p = .376.

The seventh grade dummy variable is not a significant predictor, indicating a non-significant difference between the seventh and sixth graders on overall bullying, b = 0.06,  $\beta = .06$ , t(203) = 0.79, p = .431.

The interaction between total empathy and grade on overall bullying was not statistically significant,  $\Delta F(2, 201) = 0.65$ , p = .525, and accounted for additional 1% of the variance.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between total empathy and overall bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Although, eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades, and seventh grade had a stronger positive relationship than sixth and eighth grades, none of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between overall bullying and total empathy. In conclusion, results indicate that grade does not significantly predict overall bullying and does not significantly moderate the relationship between total empathy and overall bullying.

Table 42

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Total Empathy and Overall Bullying

	Overall bullying				
Predictor variable	b	β	t	p	
Model 1					
Constant	1.79		9.66	< .001	
Total empathy	-0.13	18	-2.54	.012	
Eighth grade (dummy)	-0.07	07	-0.89	.376	
Seventh grade (dummy)	0.06	.06	0.79	.431	
F	3.48			.017	
$R^2$	.05				

Table 42 Continued

	Overall bullying				
Predictor variable	b	β	t	p	
Model 2					
Constant	1.88		5.85	< .001	
Total empathy	-0.15	21	-1.69	.093	
Eighth grade (dummy)	-0.41	44	-0.92	.358	
Seventh grade (dummy)	0.20	.21	0.43	.667	
Total empathy x eighth grade (dummy)	0.10	.38	0.78	.438	
Total empathy x seventh grade (dummy)	-0.04	15	-0.31	.754	
$\Delta F$	0.65			.525	
$\Delta R^2$	.01				
F	2.34			.043	
$R^2$	.06				

For overall bullying on affective empathy by grade, results are presented in Table 43. Results indicated that the main effect of affective empathy and grade accounted for 6% of the variance in overall bullying, F(3, 203) = 4.61, p = .004. This model is significant. Affective empathy is a significant negative predictor, b = -0.14,  $\beta = -.21$ , t(203) = -3.13, p = .002. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on overall bullying, b = -0.09,  $\beta = -.09$ , t(203) = -1.19, p = .237. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on overall bullying, b = 0.05,  $\beta = .05$ , t(203) = 0.62, p = .534.

Results indicated that the interaction between affective empathy and grade on overall bullying was not statistically significant,  $\Delta F(2, 201) = 1.51$ , p = .224. The interaction accounted for an additional 1% of the variance in verbal bullying.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between affective empathy and overall bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades, and seventh grade had a stronger positive relationship than sixth and eighth grades. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between overall bullying and affective empathy. In conclusion, results indicate that grade does not significantly predict overall bullying and does not significantly moderate the relationship between affective empathy and overall bullying.

Table 43

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Affective Empathy and Overall Bullying

		Overall bullying			
Predictor variable	$\overline{}$	β	t	p	
Model 1					
Constant	1.80		11.61	< .001	
Affective empathy	-0.14	21	-3.13	.002	
Eighth grade (dummy)	-0.09	09	-1.19	.237	
Seventh grade (dummy)	0.05	.05	0.62	.534	
F	4.61			.004	
$R^2$	.06				

Table 43 Continued

		Overall	bullying	
Predictor variable	b	β	t	p
Model 2				
Constant	2.06		7.96	< .001
Affective empathy	-0.21	34	-2.84	.005
Eighth grade (dummy)	-0.68	73	-1.88	.061
Seventh grade (dummy)	-0.17	17	-0.37	.714
Affective empathy x eighth grade (dummy)	0.18	.65	1.68	.095
Affective empathy x seventh grade (dummy)	0.06	.21	0.46	.649
$\Delta F$	1.51			.224
$\Delta R^2$	.01			
F	3.39			.006
$R^2$	.08			

For overall bullying on cognitive empathy by grade, results are presented in Table 44. Results indicated that the main effect of cognitive empathy and grade accounted for 2% of the variance in overall bullying, F(3, 203) = 1.65, p = .180. This model is not significant. Cognitive empathy is not a significant negative predictor, b = -0.05,  $\beta = -.07$ , t(203) = -1.03, p = .305. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on overall bullying, b = -0.07,  $\beta = -.07$ , t(203) = -0.90, p = .370. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on overall bullying, b = 0.07,  $\beta = .07$ , t(203) = 0.92, p = .361.

Results indicated that the interaction between cognitive empathy and grade on overall bullying was not statistically significant,  $\Delta F(2, 201) = 1.92$ , p = .150. The interaction accounted for an additional 1% of the variance in verbal bullying.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between cognitive empathy and overall bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades, and seventh grade had a stronger positive relationship than sixth and eighth grades. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between overall bullying and cognitive empathy. In conclusion, results indicate that grade does not significantly predict overall bullying and does not significantly moderate the relationship between cognitive empathy and overall bullying.

Table 44

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Cognitive Empathy and Overall Bullying

	Overall bullying			
Predictor variable	b	β	t	p
Model 1				
Constant	1.52		8.67	< .001
Cognitive empathy	-0.05	07	-1.03	.305
Eighth grade (dummy)	-0.07	07	-0.90	.370
Seventh grade (dummy)	0.07	.07	0.92	.361
F	1.65			.180
$R^2$	.02			

**Table 44 Continued** 

	Overall bullying			
Predictor variable	b	β	t	p
Model 2				
Constant	1.28		5.31	< .001
Cognitive empathy	0.02	.03	0.30	.796
Eighth grade (dummy)	0.19	.20	0.47	.637
Seventh grade (dummy)	0.77	.82	2.10	.037
Cognitive empathy x eighth grade (dummy)	-0.07	30	-0.69	.492
Cognitive empathy x seventh grade (dummy)	-0.21	77	-1.96	.052
$\Delta F$	1.92			.150
$\Delta R^2$	.02			
F	1.76			.122
$R^2$	.04			

For verbal bullying on total empathy by grade, results are presented in Table 45. Results indicated that the main effect of total empathy and grade accounted for 3% of the variance in verbal bullying, F(3, 203) = 2.40, p = .069. This model is not significant. Total empathy is a significant negative predictor, b = -0.19,  $\beta = -.16$ , t(203) = -2.28, p = .024. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on verbal bullying, b = -0.10,  $\beta = -.06$ , t(203) = -0.81, p = .418. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on verbal bullying, b = 0.03,  $\beta = .02$ , t(203) = 0.23, p = .816.

Results indicated that the interaction between total empathy and grade on verbal bullying was not statistically significant,  $\Delta F(2, 201) = 1.43$ , p = .242. The interaction accounted for an additional 1% of the variance in verbal bullying.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between total empathy and verbal bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades, and seventh grade had a stronger positive relationship than sixth and eighth grades. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between verbal bullying and total empathy. In conclusion, results indicate that grade does not significantly predict verbal bullying and does not significantly moderate the relationship between total empathy and verbal bullying.

Table 45

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Total Empathy and Verbal Bullying

	Verbal bullying			
Predictor variable	b	β	t	p
Model 1				
Constant	2.18		7.13	< .001
Total empathy	-0.19	16	-2.28	.024
Eighth grade (dummy)	-0.10	06	-0.81	.418
Seventh grade (dummy)	0.03	.02	0.23	.816
F	2.40			.069
$R^2$	.03			

Table 45 Continued

	Verbal bullying				
Predictor variable	b	β	t	p	
Model 2					
Constant	2.08		3.97	< .001	
Total empathy	-0.17	14	-1.11	.269	
Eighth grade (dummy)	-0.53	35	-0.72	.472	
Seventh grade (dummy)	0.81	.52	1.09	.279	
Total empathy x eighth grade (dummy)	0.12	.29	.58	.565	
Total empathy x seventh grade (dummy)	-0.23	51	-1.07	.287	
$\Delta F$	1.43			.242	
$\Delta R^2$	.01				
F	2.02			.078	
$R^2$	.05				

For social bullying on total empathy by grade, results are presented in Table 46. Results indicated that the main effect of total empathy and grade accounted for 4% of the variance in social bullying, F(3, 203) = 3.07, p = .029. This model is significant. Total empathy is a significant negative predictor, b = -0.14,  $\beta = -.16$ , t(203) = -2.23, p = .027. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on social bullying, b = -0.07,  $\beta = -.07$ , t(203) = -0.84, p = .404. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on social bullying, b = 0.08,  $\beta = .07$ , t(203) = 0.95, p = .341.

Results indicated that the interaction between total empathy and grade on social bullying was not statistically significant,  $\Delta F(2, 201) = 0.28$ , p = .759. The interaction accounted for an additional < 1% of the variance in social bullying.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between total empathy and social bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades, and seventh grade had a similarly strong positive relationship when compared to sixth and eighth grades. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between social bullying and total empathy. In conclusion, results indicate that grade does not significantly predict social bullying and does not significantly moderate the relationship between total empathy and social bullying.

Table 46

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Total Empathy and Social Bullying

		Social bullying			
Predictor variable	$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	β	t	р	
Model 1					
Constant	1.84		8.42	< .001	
Total empathy	-0.14	16	-2.23	.027	
Eighth grade (dummy)	-0.07	07	-0.84	.404	
Seventh grade (dummy)	0.08	.07	0.95	.341	
F	3.07			.029	
$R^2$	.04				

Table 46 Continued

	Social bullying				
Predictor variable	b	β	t	p	
Constant	1.99		8.42	< .001	
Total empathy	-0.18	21	-1.67	.097	
Eighth grade (dummy)	-0.44	40	-0.83	.410	
Seventh grade (dummy)	0.01	.01	0.02	.983	
Total empathy x eighth grade (dummy)	0.10	.34	0.70	.488	
Total empathy x seventh grade (dummy)	0.02	.06	0.13	.896	
$\Delta F$	.28			.759	
$\Delta R^2$	< .01				
F	1.94			.089	
$R^2$	.05				

For physical bullying on total empathy by grade, results are presented in Table 47. Results indicated that the main effect of total empathy and grade accounted for 2% of the variance in physical bullying, F(3, 203) = 1.59, p = .193. This model is not significant. Total empathy is a significant negative predictor, b = -0.09,  $\beta = -.12$ , t(203) = -1.73, p = .085. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on physical bullying, b = -0.04,  $\beta = -.04$ , t(203) = -0.53, p = .597. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on physical bullying, b = 0.04,  $\beta = .05$ , t(203) = 0.59, p = .557.

Results indicated that the interaction between total empathy and grade on physical bullying was not statistically significant,  $\Delta F(2, 201) = 0.29$ , p = .748. The interaction accounted for an additional < 1% of the variance in physical bullying.



These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between total empathy and physical bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades, and seventh grade had a similarly strong positive relationship when compared to sixth and eighth grades. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between physical bullying and total empathy. In conclusion, results indicate that grade does not significantly predict physical bullying and does not significantly moderate the relationship between total empathy and physical bullying.

Table 47

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Total Empathy and Physical Bullying

Physical bullying				
Predictor variable	b	β	t	p
Model 1				
Constant	1.50		8.36	< .001
Total empathy	-0.09	12	-1.73	.085
Eighth grade (dummy)	-0.04	04	-0.53	.597
Seventh grade (dummy)	0.04	.05	0.59	.557
F	1.59			.193
$R^2$	.02			

Table 47 Continued

	Physical bullying			
Predictor variable	b	β	t	p
Model 2				
Constant	1.62		5.21	< .001
Total empathy	-0.12	17	-1.36	.177
Eighth grade (dummy)	-0.34	37	-0.77	.442
Seventh grade (dummy)	0.01	.01	0.02	.984
Total empathy x eighth grade (dummy)	0.08	.35	0.69	.491
Total empathy x seventh grade (dummy)	0.01	.04	0.07	.942
$\Delta F$	.29			.748
$\Delta R^2$	< .01			
F	1.06			.382
$R^2$	.03			

For verbal bullying on affective empathy by grade, results are presented in Table 48. Results indicated that the main effect of affective empathy and grade accounted for 5% of the variance in verbal bullying, F(3, 203) = 3.71, p = .012. This model is significant. Affective empathy is a significant negative predictor, b = -0.22,  $\beta = -.21$ , t(203) = -3.02, p = .003. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on verbal bullying, b = -0.13,  $\beta = -.08$ , t(203) = -1.08, p = .280. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on verbal bullying, b = 0.01,  $\beta = .01$ , t(203) = 0.07, p = .949.

Results indicated that the interaction between affective empathy and grade on verbal bullying was not statistically significant,  $\Delta F(2, 201) = 1.27$ , p = .284. The interaction accounted for an additional 1% of the variance in verbal bullying.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between affective empathy and verbal bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades. Seventh grade had a positive relationship when compared to sixth and eighth grades. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between verbal bullying and affective empathy. In conclusion, results indicate that grade does not significantly predict verbal bullying and does not significantly moderate the relationship between affective empathy and verbal bullying.

Table 48

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Affective Empathy and Verbal Bullying

	Verbal bullying			
Predictor variable	b	β	t	p
Model 1				
Constant	2.24		8.78	< .001
Affective empathy	-0.22	21	-3.02	.003
Eighth grade (dummy)	-0.13	08	-1.08	.280
Seventh grade (dummy)	0.01	.01	0.07	.949
F	3.71			.012
$R^2$	.05			

Table 48 Continued

	Verbal bullying			
Predictor variable	b	β	t	p
Model 2				
Constant	2.40		5.62	< .001
Affective empathy	-0.26	25	-2.13	.035
Eighth grade (dummy)	-0.79	52	-1.33	.185
Seventh grade (dummy)	0.28	.18	0.38	.705
Affective empathy x eighth grade (dummy)	0.20	.45	1.14	.256
Affective empathy x seventh grade (dummy)	-0.26	25	-2.13	.035
$\Delta F$	1.27			.284
$\Delta R^2$	.01			
F	2.74			.020
$R^2$	.06			

For social bullying on affective empathy by grade, results are presented in Table 49. Results indicated that the main effect of affective empathy and grade accounted for 5% of the variance in social bullying, F(3, 203) = 3.78, p = .011. This model is significant. Affective empathy is a significant negative predictor, b = -0.14,  $\beta = -.18$ , t(203) = -2.66, p = .009. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on social bullying, b = -0.09,  $\beta = -.09$ , t(203) = -1.10, p = .274. Seventh graders and sixth graders on social bullying, b = 0.07,  $\beta = .06$ , t(203) = 0.82, p = .416.



Results indicated that the interaction between affective empathy and grade on social bullying was not statistically significant,  $\Delta F(2, 201) = 1.13$ , p = .326. The interaction accounted for an additional < 1% of the variance in social bullying.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between affective empathy and social bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades. Seventh grade had a relatively strong positive relationship when compared to sixth and eighth grades. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between social bullying and affective empathy. In conclusion, results indicate that grade does not significantly predict social bullying and does not significantly moderate the relationship between affective empathy and social bullying.

Table 49

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Affective Empathy and Social Bullying

	Social bullying			
Predictor variable	b	β	t	p
Model 1				
Constant	1.83		10.13	< .001
Affective empathy	-0.14	18	-2.66	.009
Eighth grade (dummy)	-0.09	09	-1.10	.274
Seventh grade (dummy)	0.07	.06	0.82	.416
F	3.78			.011
$R^2$	.05			

Table 49 Continued

	Social bullying			
Predictor variable	b	β	t	p
Model 2				
Constant	2.15		7.04	< .001
Affective empathy	-0.23	31	-2.62	.010
Eighth grade (dummy)	-0.72	66	-1.69	.093
Seventh grade	-0.34	31	64	.521
Affective empathy x eighth grade (dummy)	0.19	.59	1.50	.135
Affective empathy x seventh grade (dummy)	0.12	.37	0.77	.441
$\Delta F$	1.13			.326
$\Delta R^2$	.01			
F	2.72			.021
$R^2$	.06			

For physical bullying on affective empathy by grade, results are presented in Table 50. Results indicated that the main effect of affective empathy and grade accounted for 3% of the variance in physical bullying, F(3, 203) = 1.94, p = .124. This model is not significant. Affective empathy is a significant negative predictor, b = -0.09,  $\beta = -.04$ , t(203) = -2.10, p = .046. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on physical bullying, b = -0.05,  $\beta = -.07$ , t(203) = -0.73, p = .468. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on physical bullying, b = 0.03,  $\beta = .07$ , t(203) = 00.48, p = .629.



Results indicated that the interaction between affective empathy and grade on physical bullying was not statistically significant,  $\Delta F(2, 201) = 1.15$ , p = .317. The interaction accounted for an additional 1% of the variance in physical bullying.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between affective empathy and physical bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively strong positive relationship when compared to sixth grade. Seventh grade had a relatively strong positive relationship when compared to sixth grade. Eighth grade and seventh grade did not differ. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between physical bullying and affective empathy. In conclusion, results indicate that grade does not significantly predict physical bullying and does not significantly moderate the relationship between affective empathy and physical bullying.

Table 50

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Affective Empathy and Physical Bullying

	Physical bullying				
Predictor variable	b	β	t	p	
Model 1					
Constant	1.49		9.89	< .001	
Affective empathy	-0.09	.04	-2.01	.046	
Eighth grade (dummy)	-0.05	.07	-0.73	.468	
Seventh grade (dummy)	0.03	.07	0.48	.629	
F	1.94			.124	
$R^2$	.03				

Table 50 Continued

	Physical bullying					
Predictor variable	b	β	t	p		
Model 2						
Constant	1.75		6.91	< .001		
Affective empathy	-0.16	.07	-2.19	.030		
Eighth grade (dummy)	-0.57	.35	-1.63	.105		
Seventh grade (dummy)	-0.25	.44	-0.57	.571		
Affective empathy x eighth grade (dummy)	0.15	.10	1.51	.132		
Affective empathy x seventh grade (dummy)	0.08	.12	0.64	.523		
$\Delta F$	1.15			.317		
$\Delta R^2$				.317		
	.01			1.7.4		
F	1.63			.154		
$R^2$	.04					

*Note.* N = 207. Model 1:  $df_1 = 3$ ,  $df_2 = 203$ ; Model 2:  $df_1 = 2$ ,  $df_2 = 201$ . Grade was dummy coded as eighth grade: grade (6=0) (7=0) (8=1); seventh grade: grade (6=0) (7=1) (8=0).

For verbal bullying on cognitive empathy by grade, results are presented in Table 51. Results indicated that the main effect of cognitive empathy and grade accounted for 1% of the variance in verbal bullying, F(3, 203) = 0.79, p = .499. This model is not significant. Cognitive empathy is not a significant negative predictor, b = -0.05,  $\beta = -.05$ , t(203) = -0.67, p = .504. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on verbal bullying, b = -0.11,  $\beta = -.07$ , t(203) = -0.88, p = .382. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on verbal bullying, b = 0.04,  $\beta = .03$ , t(203) = 0.35, p = .7.30.

Results indicated that the interaction between cognitive empathy and grade on verbal bullying was statistically significant,  $\Delta F(2, 201) = 3.22$ , p = .042 (see Figure 3). The interaction accounted for an additional 3% of the variance in verbal bullying.

These results provide partial support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between cognitive empathy and verbal bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades. Seventh grade had a relatively strong positive relationship when compared to sixth and eighth grades. Results indicate that grade does not significantly predict verbal bullying. However, grade does significantly moderate the relationship between cognitive empathy and verbal bullying. The relationship between cognitive empathy and verbal bullying is negative and stronger for seventh graders than eighth graders.

Table 51

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Cognitive Empathy and Verbal Bullying

	Verbal bullying							
Predictor variable	b	β	t	p				
Model 1								
Constant	1.69		5.89	< .001				
Cognitive empathy	-0.05	05	-0.67	.504				
Eighth grade (dummy)	-0.11	07	-0.88	.382				
Seventh grade (dummy)	0.04	.03	0.35	.730				
F	0.79			.499				
$R^2$	.01							

Table 51 Continued

	Verbal bullying						
Predictor variable	b	β	t	р			
Model 2							
Constant	1.33		3.39	.001			
Cognitive empathy	0.05	.05	0.45	.654			
Eighth grade (dummy)	0.04	.02	0.06	.954			
Seventh grade (dummy)	1.51	.98	2.51	.013			
Cognitive empathy x eighth grade (dummy)	-0.05	12	-0.27	.784			
Cognitive empathy x seventh grade (dummy)	-0.43	97	-2.49	.014			
$\Delta F$	3.22			.042			
$\Delta R^2$	.03						
F	1.78			.199			
$R^2$	.04						

*Note.* N = 207. Model 1:  $df_1 = 3$ ,  $df_2 = 203$ ; Model 2:  $df_1 = 2$ ,  $df_2 = 201$ . Grade was dummy coded as eighth grade: grade (6=0) (7=0) (8=1); seventh grade: grade (6=0) (7=1) (8=0).

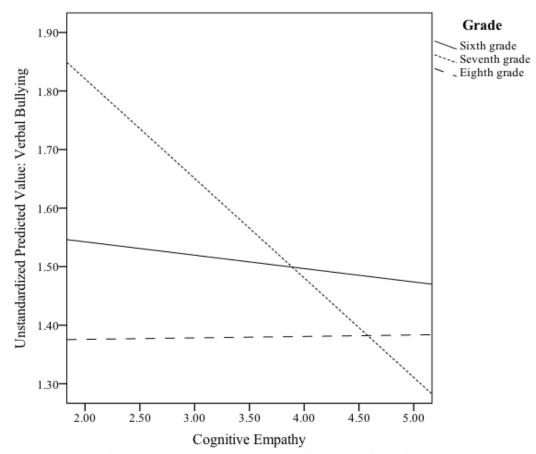


Figure 3. Interaction of cognitive empathy and grade on verbal bullying.

To determine where differences exist, the data file was split by grade. Simple slopes for the association between verbal bulling and cognitive empathy were tested for sixth, seventh, and eighth grades. Results are presented in Table 52. Results indicate that cognitive empathy was not a significant predictor and accounted for 0% of the variance in verbal bullying for sixth graders, F(1, 73) = 0.03, b = -0.02,  $\beta = -.02$ , t(73) = -0.17, p = .869. Cognitive empathy was not a significant predictor and accounted for 2% of the variance in verbal bullying for seventh graders, F(1, 63) = 1.30, b = -0.17,  $\beta = -.14$ , t(63) = -1.14, p = .259. Cognitive empathy was not a significant predictor and accounted for 0% of the variance in verbal bullying for eighth graders, F(1, 65) = 0.00, b = .00, b = .00,

Seventh grade revealed a strong negative relationship when compared to sixth and eighth grades, and sixth grade had a stronger negative relationship than eighth grade. None of the simple slopes (sixth, seventh, or eighth grade) revealed a statistically significant association between verbal bullying and cognitive empathy.

Table 52
Simple Slope Analyses: The Relationship between Verbal Bulling and Cognitive Empathy by Grade

	Verbal bullying					
Predictor variable	$\overline{b}$	β	t	p		
Sixth grade						
Constant	1.59		3.17	.002		
Cognitive empathy	-0.02	02	-0.17	.869		
F	0.03			.869		
$R^2$	.00					
Seventh grade						
Constant	2.16		3.95	< .001		
Cognitive empathy	-0.17	14	-1.14	.259		
F	1.30			.259		
$R^2$	.02					
Eighth grade						
Constant	1.37		3.05	.003		
Cognitive empathy	0.00	.00	0.02	.982		
F	0.00			.982		
$R^2$	.00					

*Note.* Sixth grade (n = 75):  $df_1 = 1$ ,  $df_2 = 73$ ; seventh grade (n = 65):  $df_1 = 1$ ,  $df_2 = 63$ ; eighth grade (n = 67):  $df_1 = 1$ ,  $df_2 = 65$ .



For social bullying on cognitive empathy by grade, results are presented in Table 53. Results indicated that the main effect of cognitive empathy and grade accounted for 3% of the variance in social bullying, F(3, 203) = 1.73, p = .163. This model is not significant. Cognitive empathy is not a significant negative predictor, b = -0.06,  $\beta = -.07$ , t(203) = -1.01, p = .312. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on social bullying, b = -0.07,  $\beta = -.07$ , t(203) = -0.83, p = .410. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on social bullying, b = 0.09,  $\beta = .0$ , t(203) = 1.07, p = .286.

Results indicated that the interaction between cognitive empathy and grade on social bullying was not statistically significant,  $\Delta F(2, 201) = 0.90 p = .410$ . The interaction accounted for an additional 1% of the variance in social bullying.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between cognitive empathy and social bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades. Seventh grade had a relatively strong positive relationship when compared to sixth and eighth grades. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between social bullying and cognitive empathy. In conclusion, results indicate that grade does not significantly predict social bullying and does not significantly moderate the relationship between cognitive empathy and social bullying.

Table 53

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Cognitive Empathy and Social Bullying

	Social bullying					
Predictor variable	b	β	t	p		
Model 1						
Constant	1.57		7.67	< .001		
Cognitive empathy	-0.06	07	-1.01	.312		
Eighth grade (dummy)	-0.07	07	-0.83	.410		
Seventh grade (dummy)	0.09	.08	1.07	.286		
F	1.73			.163		
$R^2$	.03					
Model 2						
Constant	1.35		4.76	< .001		
Cognitive empathy	0.01	.01	0.07	.945		
Eighth grade (dummy)	0.23	.21	0.50	.619		
Seventh grade (dummy)	0.65	.58	1.49	.137		
Cognitive empathy x eighth grade (dummy)	-0.08	30	-0.69	.493		
Cognitive empathy x seventh grade (dummy)	-0.16	51	-1.31	.193		
$\Delta F$	0.90			.410		
$\Delta R^2$	.01					
F	1.39			.228		
$R^2$	.03					

*Note.* N = 207. Model 1:  $df_1 = 3$ ,  $df_2 = 203$ ; Model 2:  $df_1 = 2$ ,  $df_2 = 201$ . Grade was dummy coded as eighth grade: grade (6=0) (7=0) (8=1); seventh grade: grade (6=0) (7=1) (8=0).



For physical bullying on cognitive empathy by grade, results are presented in Table 54. Results indicated that the main effect of cognitive empathy and grade accounted for 1% of the variance in physical bullying, F(3, 203) = 0.83, p = .481. This model is not significant. Cognitive empathy is not a significant negative predictor, b = -0.04,  $\beta = -.06$ , t(203) = -0.85, p = .396. Eighth grade is not a significant predictor, indicating a non-significant difference between the eighth graders and sixth graders on physical bullying, b = -0.04,  $\beta = -.04$ , t(203) = -0.51, p = .609. Seventh grade is not a significant predictor, indicating a non-significant difference between the seventh graders and sixth graders on physical bullying, b = 0.05,  $\beta = .05$ , t(203) = 0.68, p = .495.

Results indicated that the interaction between cognitive empathy and grade on physical bullying was not statistically significant,  $\Delta F(2, 201) = 0.71$ , p = .493. The interaction accounted for an additional 1% of the variance in physical bullying.

These results do not provide support the hypothesis (H<sub>3.5</sub>) that grade will moderate the relationship between cognitive empathy and physical bullying, such that the relationship will be strong for higher grades, and the relationship will be weak for lower grades. Eighth grade revealed a relatively stronger negative relationship when compared to sixth and seventh grades. Seventh grade had a relatively strong positive relationship when compared to sixth and eighth grades. None of the grades (sixth, seventh, or eighth grade) revealed a statistically significant association between physical bullying and cognitive empathy. In conclusion, results indicate that grade does not significantly predict physical bullying and does not significantly moderate the relationship between cognitive empathy and physical bullying.

Table 54

Moderated Multiple Regression Analyses: The Moderating Effect of Grade on the Relationship Between Cognitive Empathy and Physical Bullying

	Physical bullying					
Predictor variable	b	β	t	p		
Model 1						
Constant	1.34		7.99	< .001		
Cognitive empathy	-0.04	06	-0.85	.396		
Eighth grade (dummy)	-0.04	04	-0.51	.609		
Seventh grade (dummy)	0.05	.05	0.68	.495		
F	0.83			.481		
$R^2$	.01					
Model 2						
Constant	1.34		7.99	< .001		
Cognitive empathy	0.01	.01	0.13	.897		
Eighth grade (dummy)	0.21	.24	0.55	.581		
Seventh grade (dummy)	0.45	.49	1.25	.212		
Cognitive empathy x eighth grade (dummy)	-0.07	30	-0.68	.498		
Cognitive empathy x seventh grade (dummy)	-0.12	45	-1.14	.255		
$\Delta F$	0.71			.493		
$\Delta R^2$	.01					
F	0.78			.566		
$R^2$	.02					

*Note.* N = 207. Model 1:  $df_1 = 3$ ,  $df_2 = 203$ ; Model 2:  $df_1 = 2$ ,  $df_2 = 201$ . Grade was dummy coded as eighth grade: grade (6=0) (7=0) (8=1); seventh grade: grade (6=0) (7=1) (8=0).



#### **CHAPTER 5 DISCUSSION**

The purpose of the current study was to examine the ways in which person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) influence bullying and bystander behaviors in middle school students. The influence of gender and grade on the aforementioned factors was a central component of the study. This chapter provides a discussion of the results from the inferential statistics used to address each of the three research questions and associated hypotheses of the current study. Strengths and limitations of the study are recognized, and directions for future research are put forth.

In addressing the first research question regarding gender differences in person-level factors, it was hypothesized (H<sub>1.1</sub>) that males would endorse more agentic goals, less communal goals, lower self-efficacy for defending, higher moral disengagement, and lower empathy than females. This hypothesis was supported with the exception of agentic goals. Males reported lower agentic goals than females, which was opposite from the hypothesis. Previous research suggests that males typically endorse more agentic goals than females (Ojanen et al., 2005; Trucco et al., 2014).

As for grade differences in person-level factors, it was hypothesized (H<sub>1.2</sub>) that sixth, seventh, and eighth graders would differ in their social goals, self-efficacy for defending, moral disengagement, and empathy. This hypothesis was partially supported. Seventh graders reported significantly more agentic goals than sixth graders. This result supports previous research. Ojanen et al. (2005) found that children and adolescents pursued increasing levels of agentic goals from 11- to 13-years-old, and, as children aged, agentic goals increased more than communal goals during this developmental period.

Grade differences were also significant for empathy. Eighth graders reported significantly higher cognitive empathy than sixth and seventh graders. Although seventh graders reported higher levels of cognitive empathy than sixth graders, the differences were not statistically significant. Cognitive empathy is the ability to accurately understand the feelings or emotions of others (Ang & Goh, 2010). As cognitive abilities develop with age, adolescents develop the capacity to use logic and abstract reasoning, which is important when considering the interpretation of others' feelings and/or emotional states (Ettekal et al., 2015; Monks & Smith, 2006).

Sixth, seventh, and eighth graders did not differ significantly on communal goals, self-efficacy for defending, moral disengagement, or affective empathy. However, interaction effects were detected. Although not hypothesized, the current study found an interaction effect between gender and grade on two person-level factors: self-efficacy for defending and affective empathy.

On self-efficacy for defending, eighth grade males reported significantly lower self-efficacy for defending than females. While this finding was not hypothesized, some conjecture is offered. Given that self-efficacy is developed through personal performance and vicarious experience, older boys may have personally experienced, or witnessed peers experience, adverse consequences for attempting to defend victims of bullying; thereby, lowering their own self-efficacy for defending as they progress through the middle school grades. However, this postulation is just conjecture. If, however, future research investigates and replicates this finding, implications for prevention and intervention efforts might develop.

Seventh grade males had significantly lower affective empathy than seventh grade females. Eighth grade males had significantly lower affective empathy than eighth grade females. These findings are consistent with previous research. In the context of bullying and

bystander experiences, scholars have postulated that empathy may vary by component (e.g., affective, cognitive), gender, and developmental level (Barchia & Bussey, 2011b; Ettekal et al., 2015; Jolliffe & Farrington, 2011).

In addressing the second part of the first research question regarding gender differences in different types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim, bystander), it was hypothesized (H<sub>1.3</sub>) that males would report more physical bullying as bullies, victims, and bully-victims than females. This hypothesis was not supported. Consistent with previous research, males reported higher levels of physical bullying as bullies, victims, and bully-victims than females; however, the differences were not statistically significant. Although not hypothesized, results indicate that females experienced significantly more social victimization than males. This finding is also consistent with prior research. Gender differences were not statistically significant for the bully-victim group or bystander behaviors.

As for grade differences, it was hypothesized ( $H_{1.4}$ ) that sixth, seventh, and eighth graders would differ in types of bullying (verbal, social, physical) and experiences (bully, victim, bully-victim, bystander). This hypothesis was not supported. Sixth, seventh, and eighth graders did not differ significantly in types of bullying (verbal, social, physical) or experiences (bully, victim, bully-victim, bystander).

In addressing research question two, four separate hypotheses were put forth regarding person-level factors predicting experience (verbal, social, physical) as a bully, victim, bully-victim, and bystander (pro-bully, outsider, defender).

The hypothesis (H<sub>2.1</sub>) regarding person-level factors predicting bully perpetration was partially supported. Results indicate that individuals with more agentic goals and higher moral disengagement were more likely to engage in verbal and social bullying of others. For physical

bullying, moral disengagement was the only significant predictor. Therefore, regardless of the other factors measured, students who morally disengage were more likely to physically bully others.

The hypothesis  $(H_{2,2})$  concerning person-level factors predicting victimization was not supported. Person-level factors did not predict victimization.

The hypothesis (H<sub>2,3</sub>) regarding person-level factors predicting experiences as a bully-victim was partially supported. For the bully-victim group, moral disengagement was the only significant predictor. This suggests that individuals with higher levels of moral disengagement were more likely to have experiences as bully-victims—verbally, socially, and physically. This finding may reflect the nature of the bully-victim group. Research suggests that those who experience bullying as bully-victims often start out by being victims and subsequently target others who they perceive as less powerful than themselves (e.g. *To hit an annoying classmate is just teaching them "a lesson"*). This line of conjecture is consistent with previous research on the mechanisms of moral disengagement as well (Bandura, 1999b; Bandura, 2002; Bandura et al., 1996).

Regarding bystanders, the hypothesis (H<sub>2.4</sub>) that person-level factors predict bystander behavior was partially supported. Person-level factors significantly predicted bystander behavior (pro-bully, outsider, defender). For pro-bully behaviors, self-efficacy for defending and moral disengagement were statistically significant. Individuals with lower self-efficacy for defending and higher moral disengagement were more likely to engage in pro-bully bystander behavior (e.g., *I joined in and began to bully the student too*). For outsider bystander behavior (e.g., *I didn't do anything but I was quiet and passive instead*), individuals with lower self-efficacy for defending and lower moral disengagement were less likely to help the victim. For defender

bystander behavior (e.g., *I tried to get the bully/bullies to stop*), self-efficacy for defending was the only predictor found to be statistically significant. Those with higher self-efficacy for defending were more likely to directly defend victims of bullying (e.g., tried to get the bully to stop) or indirectly defend victims by telling a teacher. These results support previous findings from Thornberg and Jungert (2013). Opposite to the hypothesis, however, social goals and empathy did not predict bystander behavior. Research has found that bystanders with higher levels of empathy are more likely to defend victims than bystanders with lower empathy (Gini et al., 2007).

Research question three investigated how the relationship between empathy (total, affective, cognitive) and bullying (overall, verbal, social, physical) varies based on gender and grade. Five hypotheses were put forth. For the first hypothesis (H<sub>3.1</sub>), it was hypothesized that there would be a main effect for empathy on bullying, such that the relationship would be negative. This hypothesis was partially supported. Affective, but not cognitive, empathy was significant for overall, verbal, and social bullying. The relationship between affective and/or cognitive empathy was not significant for physical bullying. The non-significant relationship between empathy (affective and cognitive) and physical bullying is in line with previous research (Jolliffe & Farrington, 2006b).

It was also hypothesized (H<sub>3.2</sub>) that gender would moderate the relationship between total empathy and overall bullying, such that the relationship would be strong for females and weak for males, and (H<sub>3.3</sub>) gender would moderate the relationship between affective empathy and overall bullying, such that the relationship would be strong for females and weak for males. These two hypotheses were not supported. Although gender moderated the relationship between total empathy and overall bullying, the relationship was strong and negative for males but not

significant for females. Likewise, gender moderated the relationship between affective empathy and overall bullying, but the relationship was strong and negative for males but not significant for females. A possible explanation for these findings is that the results may be sample specific and not generalizable to the broader population.

The fourth hypothesis (H<sub>3.4</sub>) was that gender would moderate the relationship between cognitive empathy and overall bullying, such that the relationship would be strong for males and weak for females. This hypothesis was supported. The effect of cognitive empathy on overall bullying is stronger for males than females. Gender significantly moderates the relationship between cognitive empathy and overall bullying, such that the relationship is significantly negative and stronger for males and not significant and weaker for females. Previous research indicated that gender differences were not observed for cognitive empathy and bullying (Jolliffe & Farrington, 2011), which is consistent with the first regression model results of the hypothesis test (e.g. Model 1). However, when the product term (e.g., cognitive empathy x gender) was entered into the regression model at step two (e.g., Model 2), the interaction was significant. Simple slope regression revealed that cognitive empathy was a statistically significant predictor of overall bullying for males but not significant for females.

Researchers have postulated that bullies are not necessarily social outcasts or cognitively inept, but rather, bullies have well-developed and sophisticated social cognition (Sutton, Smith, & Swettenham, 1999). Results suggest, however, that the relationship between understanding the emotions of others (e.g., cognitive empathy) and bullying may be more complicated. Findings from the current study indicate that cognitive empathy is a significant negative predictor for males but not for females. In other words, males with lower cognitive empathy are more likely to engage in bullying others than females and/or individuals with higher cognitive empathy.

The fifth and final hypothesis (H<sub>3.5</sub>) was that grade would moderate the relationship between empathy (total, affective, cognitive) and bullying (overall, verbal, social, physical) such that the relationship would be stronger for higher grades and weaker for lower grades. This hypothesis was partially supported.

Specifically, grade moderated the relationship between cognitive empathy and verbal bullying. Seventh grade revealed a strong negative relationship when compared to sixth and eighth grades, and sixth grade had a stronger negative relationship than eighth grade. None of the simple slopes (sixth, seventh, or eighth grade) revealed a statistically significant association between verbal bullying and cognitive empathy. No other moderation effects of grade were found regarding the relationship between empathy (total, affective, or cognitive) and bullying (overall, verbal, social, or physical).

## **Strengths of the Study**

Bullying is a dynamic process, and the consequent outcomes are often serious. For many of those unfortunate children and adolescents who experience bullying as bullies, victims, bully-victims, and/or bystanders, the adverse socioemotional, academic, and psychological consequences often extend into adulthood (McDougall & Vaillancourt, 2015). Therefore, it is necessary to understand the factors that predict bullying in order to facilitate effective prevention and intervention efforts to reduce, and ultimately prevent, bullying and the consequent negative outcomes.

Ettekal et al. (2015) postulated that more research is needed to determine the ways in which children and adolescents coordinate social-cognitive, moral, and emotional processes, and the association between these person-level factors and bullying and bystander behaviors. This study was a starting point for filling the gap in this knowledge base. By examining gender and

grade differences in person-level factors, bully experiences, and bystander behaviors, the current study supports, clarifies, and challenges some of the findings of previous studies.

Prior research suggests that males typically endorse more agentic (e.g., power, dominance) social goals than females. This assertion was not supported in the current study. Although the mean differences were not statistically significant, males reported lower agentic and communal goals than females. This may be a strength or a weakness of the current study. One plausible explanation for the counterintuitive findings regarding agentic goals is that the results may be sample specific and not generalizable to the broader population. However, in line with the discussion put forth in Ettekal et al. (2015), the direction of the relationship between social goals and bullying was supported. Results evidenced a significant positive relationship between agentic goals and verbal and social, but not physical, bullying. Communal goals did not significantly predict bullying, victimization, or bystander behavior.

Moral disengagement was one predictor that was significant across bully perpetration types (e.g., verbal, social, and physical), such that the relationship was significant and positive. Hence, overall, as adolescents morally disengaged, they were more likely to bully others. The relationship with bystander behavior was also in the predicted direction. Those with higher levels of moral disengagement were more likely to support the bully (e.g., pro-bully) in bully situations. Conversely, those who stayed away (e.g., outsider) endorsed significant and negative levels of moral disengagement. For those bystanders who defended victims, moral disengagement was not a significant predictor. These results support previous research (Hymel et al., 2005).

The findings regarding moral disengagement are consistent with the supposition posited by Ettekal et al. (2015) that those children and adolescents who experience bullying in various roles (e.g., bully, victim, bully-victim, bystander) may use varying mechanisms of moral

disengagement depending on their specific role. For example, a bully may, in one way or another, dehumanize his/her victim; meanwhile, passive bystanders may displace responsibility by believing that someone else will intervene.

Self-efficacy for defending was also found to be one of the more consistent predictors in bystander behavior. For pro-bully, outsider, and defender behaviors, self-efficacy for defending was significantly related to their role and in the direction that one would expect: negative for pro-bullies and outsiders and positive for defenders. Previous research investigating the relationship between general self-efficacy and readiness to intervene as well as self-efficacy for assertive behavior and defending behavior have failed to find statistically significant associations (Barchia & Bussey, 2011b). Rigby and Johnson (2006) posited that the measure of self-efficacy used in previous research was too general for assessing intervention behavior. The researchers suggested that future investigations should use more specific self-efficacy measures. This was a strength of the current study. Using a specific measure of self-efficacy for defending (Barchia & Bussey, 2011b), along with the self-report measure of bystander behavior (Thornberg & Jungert, 2013), the postulation put forth by Rigby and Johnson (2006) seems to be supported. Continued efforts to refine and validate the ways in which self-efficacy and bystander behaviors are measured may prove fruitful in future research.

Another strength of the current study was the findings regarding empathy. The mixed results suggest that the relationship between empathy (e.g., affective and cognitive) and bullying and bystander behavior is complicated. The role of empathy appeared to vary depending on the component of empathy, gender, and grade of the individual. In the current study, empathy did not significantly predict experience as a bully, victim, bully-victim, or bystander when entered into regression models with other person-level predictors. When measured independent of the

other person-level predictors (e.g., social goals, self-efficacy for defending, and moral disengagement), however, affective empathy was a significant predictor of overall, verbal, and social bullying—but not physical bullying. Cognitive empathy did not predict bullying independently. However, gender and grade moderated the relationship between empathy and bullying in some, but not all, cases. These findings provide additional evidence of a complicated relationship between empathy and bullying and bystander behavior. Further, the findings that gender moderated the relationship between total empathy and bullying as well as affective empathy and bullying for males and not females is important to consider. As with agentic goals, these findings may be due to characteristics of the sample and not generalizable. However, this study was a contribution to the literature by demonstrating the need to take a more nuanced and sophisticated approach to measuring the relationship between empathy and experiences as a bully or bystander.

The aforementioned strengths of the current study provide researchers, practitioners, and policy-makers new insights regarding some of the person-level predictors of bullying and bystander behaviors. Past policy initiatives, prevention and intervention efforts, and tertiary treatments aimed at ameliorating the well-documented negative outcomes associated with bullying have produced less than adequate results (Cornell & Bradshaw, 2015). The adverse consequences for victims, bullies, as well as bystanders—socially, academically, and psychologically—are serious for many children and adolescents and often extend into adulthood (McDougall & Vaillancourt, 2015). Further, the ubiquitous debate over funding allocations for prevention and intervention programs is often precarious and, at times, ominous. This study offers insight into the nuanced and dynamic nature of the predictors of bullying and bystander

behaviors. The implications are important given the finite funding available for allocation to such critical prevention and intervention efforts.

## **Limitations of the Study**

This study has limitations. For one thing, the sample and research design were matters of convenience due the nature and time constraints of this study. Additionally, data was collected from one public school academy (i.e., charter school) in southeast Michigan. Therefore, the results of the study may not be generalizable. Parents and students who choose to enroll in a charter school may be different on any number of factors including, but not limited to, socioeconomic status, parental involvement, parental education, perceived value of education, and/or competitiveness than those parents and/or students who choose to attend traditional public, or even private, schools. Further, the sample size was small. A larger sample would yield more statistical power and likely detect smaller, but statically significant, results.

Another limitation of the current study is the use of a cross-sectional research design. While a cross-sectional design allowed for examination of developmental changes across the target grades, important structural elements such as random assignment, and experimental- and control groups were not present. Therefore, counterfactual inference is not possible (Shadish et al., 2002). Future investigations would benefit from the use of prospective, longitudinal research designs. Longitudinal research would allow the researcher to measure changes in these person-level predictors, bullying experiences, and bystander behaviors over time within the same individual. This would likely provide important information about developmental changes regarding the aforementioned variables. Using grade as a measure of development is also a limitation. Future studies would benefit from use of a more valid and reliable measure of developmental level in the social-cognitive, moral, and emotional processes of adolescents.



Lastly, another limitation of the study was the use of self-report survey data. Within the bully literature, there is debate as to which is the best method to measure bullying experiences. Options include direct observations, parent and/or teacher reports, peer nominations, and of course, self-report surveys. Each method has its strengths and limitations. Ideally, a combined approach would be used. Using results from multiple raters/observers would be beneficial. Although there are difficulties collecting and interpreting data from multiple sources, there are many benefits as well.

#### **Future Research**

This study contributed to the bully literature by providing a platform, from which new research questions and hypotheses can be put forth. As a result of the statistically significant findings from the current study, future research would benefit from using a larger, more diverse sample. As sample size increases, power increases, and smaller statistically significant relationships and effects are more likely to be detected. These suggestions would also facilitate more generalizability of the findings. The use of a longitudinal, rather than cross-sectional, design would allow for a more reliable indication of developmental differences and changes of the person-level predictors, bullying experiences, and bystander behaviors within individuals over time. This would help with the design and implementation of prevention and intervention efforts with a more targeted approach and increase the effectiveness of such programs and efforts.

#### APPENDIX A

### **SURVEY INSTRUMENTS**

## **Directions for Survey**

The purpose of this survey is to learn why and how much bullying occurs. Bullying is a form of aggression that is intentional, repeated, and involves an imbalance of power between the people involved. Bullying can include things such as shoving, hitting, name-calling, spreading rumors, and leaving someone out on purpose, or other hurtful actions.

It is very important that you are honest as you answer each question. Please do not write your name on the survey. This is an anonymous survey and your responses will not be known to teachers or parents.

Read each question carefully and try not to leave any questions blank. If you have any questions, please ask me. Please begin and turn in the form when you are done.

Demographic Survey									
	Gender		Age				Grade		
	☐ Male		<b>1</b> 0		13		$\Box$ 6 <sup>th</sup>		
	☐ Female		<b>□</b> 11		14		$lacksquare$ $7^{ ext{th}}$		
			<b>□</b> 12		15		<b>□</b> 8 <sup>th</sup>		
							<b>□</b> 9 <sup>th</sup>		
Ra	ce\Ethnicity ( <i>Check All Tha</i>	ıt Ap	pply þ)						
	Asian\Pacific Islander		Native American				Latino\Hispanic		
	Black\African American		White\Caucasian				Other:		
	Native Alaskan		Multi-racial				Other:		
Wi	th whom do you live most o	of th	e time? ( <i>Check All T</i>	hat	<i>Apply</i> þ)				
	Mother & Father		Stepmother				Other Relatives		
	Mother		Stepfather				Nonrelatives		
	Father		Grandparents				Other:		



## Student Bystander Behavior Scale (SBBS)

Please use the following scale to rate each of the following statements:

Never	Seldom	Sometimes	Usually	Always
1	2	3	4	5

If you saw one or some kids bullying another kid in school, how did you use to react when you saw the bullying going on?

1. I joined in and began to bully the student too	1	2	3	4	5
2. I watched because it was fun and entertaining	1	2	3	4	5
3. I stayed away	1	2	3	4	5
4. I laughed and cheered the bullies on	1	2	3	4	5
5. I didn't do anything but I was quiet and passiv	re instead 1	2	3	4	5
6. I tried to get the bully/bullies to stop	1	2	3	4	5
7. I took the bullies' side and joined in the bullyi	ng 1	2	3	4	5
8. I told a teacher	1	2	3	4	5

# **Self-Efficacy for Defending**

Please use the following scale to rate each of the following statements:

Not Well	Poor	Fair	Neutral	OK	Well	Very Well
1	2	3	4	5	6	7

Circle the number that matches how well you...

1.	Tell a student who slaps, punches, or pushes another student to stop?	1	2	3	4	5	6	7
2.	Tell a student who leaves others out, spreads rumors, or says mean things about another student behind their back to stop?	1	2	3	4	5	6	7
3.	Tell a student who calls someone mean names, teases, or says mean things to another student to stop?	1	2	3	4	5	6	7



# Peer Experiences Questionnaire (PEQ)

Please use the following scale to rate each of the following statements:

	Never	Once or Twice	A Few Times	About W	Once eek	e a		w Tim Week	es a
	1	2	3		4			5	
Circ	ele the number th	nat matches your agree	ement with each state	ment					
	rt 1 (items 1-9) a the past school y	sks about how thing year	s other kids have do	ne to you	•				
	A student teased rude things to m	d me in a mean way, cane.	alled me bad names,	or said	1	2	3	4	5
2.	A student said h	e or she was going to	hurt me or beat me u	p.	1	2	3	4	5
3.	A student ignore	ed me on purpose just	to hurt my feelings.		1	2	3	4	5
4.	A student told p	ut-downs or rumors al	bout me.		1	2	3	4	5
5.	A student hit, ki	cked, or pushed me in	a mean way.		1	2	3	4	5
6.	A student grabb	ed, held, or touched m	ne in a way I didn't lil	ke.	1	2	3	4	5
	Some students l me feel bad.	eft me out of an activi	ty or conversation to	make	1	2	3	4	5
8.	A student chase	d me like he or she wa	as really trying to hur	me.	1	2	3	4	5
9.	A student played	d a mean trick to scare	e or hurt me.		1	2	3	4	5
	et 2 (items 10-18 The past school y	) asks about things y year	ou have done to ano	ther kid.					
	I teased a studer said rude things	nt in a mean way, calle to him or her.	ed him or her bad nan	nes, or	1	2	3	4	5
11.	I threatened to h	urt or beat up another	student.		1	2	3	4	5
12.	I ignored anothe	er student on purpose t	to hurt his or her feeli	ngs.	1	2	3	4	5
13.	I told put-downs	s or rumors about anot	ther student.		1	2	3	4	5
14.	I hit, kicked, or	pushed another studer	nt in a mean way.		1	2	3	4	5
	I grabbed, held, like.	or touched a student i	n a way he or she did	n't	1	2	3	4	5
	I helped leave a make him or her	student out of an active r feel bad,	vity or conversation to	)	1	2	3	4	5
17.	I chased a stude	nt to try to hurt him or	r her.		1	2	3	4	5
1.0	I played a mean	trick to scare or hurt a	am ath am atu damt		1	2	3	4	5



# **Interpersonal Goal Inventory for Children (IGI-CR)**

Please use the following scale to rate each of the following statements:

Not At All Important to Me	A Little Important to Me	Important to Me	Very Importa to Me	ınt		treme rtant t	•
0	1	2	3			4	
Circle the number	that matches your ag	reement with each stateme	ent				
When with your p	peers, how importan	t is it for you that					
1. Your peers res	spect and admire you		0	1	2	3	4
2. Your peers agr	ree to do what you su	ggest	0	1	2	3	4
3. You do not sho	ow your feelings in fr	ont of your peers	0	1	2	3	4
4. You do not do	anything ridiculous		0	1	2	3	4
5. Your peers do	not get angry with yo	ou	0	1	2	3	4
6. Everyone feels	s good		0	1	2	3	4
7. You feel close	to your peers		0	1	2	3	4
8. You say exact	ly what you want		0	1	2	3	4
9. You appear se	lf-confident and make	e an impression on your p	eers 0	1	2	3	4
10. You get to dec	eide what to play		0	1	2	3	4
11. You do not giv	ve away too much abo	out yourself	0	1	2	3	4
12. You do not say	y stupid things when	your peers are listening	0	1	2	3	4
13. You do not ma	ake your peers angry		0	1	2	3	4
14. You can put yo	our peers in a good m	ood	0	1	2	3	4
15. Real friendship	p develops between y	ou	0	1	2	3	4
16. Your peers list	ten to your opinion		0	1	2	3	4
17. Your peers this	nk you are smart		0	1	2	3	4
18. The group doe	s what you say		0	1	2	3	4
19. You keep your	19. You keep your thoughts to yourself					3	4
20. Your peers do	not laugh or make fu	n of you	0	1	2	3	4
21. You do not annoy your peers 0 1 2						3	4
22. You are able to please your peers 0 1 2 3						4	
23. Your peers hel	23. Your peers help you when you have a problem 0 1 2 3 4						4
24. You can state	your opinion		0	1	2	3	4



25. You don't back down when there is a disagreement	0	1	2	3	4
26. You feel you have control over your peers	0	1	2	3	4
27. You do not let your peers get too close to you	0	1	2	3	4
28. You do not make a fool of yourself in front of your peers	0	1	2	3	4
29. You let your peers make decisions	0	1	2	3	4
30. You agree with your peers about things	0	1	2	3	4
31. Your peers come to you when they have a problem	0	1	2	3	4
32. You are able to tell your peers how you feel	0	1	2	3	4

# **Moral Disengagement Scale for Peer Aggression**

Please use the following scale to rate each of the following statements:

Don't Agree	Slightly Agree	<b>Mainly Agree</b>	<b>Totally Agree</b>
1	2	3	4

Circle the number that matches your agreement with each statement:

1. It's alright to beat someone who bad mouths your family.	1	2	3	4
2. To hit an annoying classmate is just teaching them "a lesson"	1	2	3	4
3. Stealing a little bit of money is not too serious compared to those who steal a lot of money.	e 1	2	3	4
4. It's okay to treat badly somebody who is annoying.	1	2	3	4
5. It's alright to fight when your group's honor is threatened.	1	2	3	4
6. Teasing someone does not really hurt them.	1	2	3	4
7. Taking someone's bicycle without permission is just "borrowing	; it". 1	2	3	4
8. Saying bad things about others doesn't hurt anyone.	1	2	3	4
9. Bullying has to be a part of growing up.	1	2	3	4
10. It's okay for a kid to hit someone who is bullying them.	1	2	3	4
11. Kids who are bullied usually do something to deserve it.	1	2	3	4
12. It's okay to leave someone out if they are annoying.	1	2	3	4
13. It's okay to not help someone being bullied if others aren't helpin	ng. 1	2	3	4



# **Basic Empathy Scale (BES)**

Please use the following scale to rate each of the following statements:

	Strongly Disagree	Disagree	Neither Agree, Nor Disagree	Agree		Stron	ngly A	gree
	1	2	3	4			5	
Ciı	rcle the number th	nat matches your ag	reement with each statemen	t:				
1.	My friend's emo	otions don't affect n	ne much.	1	2	3	4	5
2.	After being with feel sad.	a friend who is sad	l about something, I usually	1	2	3	4	5
3.	I can understand something.	l my friend's happir	ness when she/he does well	at 1	2	3	4	5
4.	I get frightened	when I watch chara	cters in a good scary movie	. 1	2	3	4	5
5.	I get caught up i	in other people's fee	elings easily.	1	2	3	4	5
6.	I find it hard to l	know when my frien	nds are frightened.	1	2	3	4	5
7.	I don't become s	1	2	3	4	5		
8.	Other people's f	feelings don't bothe	r me at all.	1	2	3	4	5
9.	When someone is feeling 'down' I can usually understand how they feel.						5	
10	. I can usually wo	ork out when my frie	ends are scared.	1	2	3	4	5
11.	. I often become s	sad when watching	sad things on TV or in films	s. 1	2	3	4	5
12.	I can often unde tell me.	erstand how people a	are feeling even before they	1	2	3	4	5
13.	Seeing a person feelings.	who has been ange	red has no effect on my	1	2	3	4	5
14	. I can usually wo	ork out when people	are cheerful.	1	2	3	4	5
15. I tend to feel scared when I am with friends who are afraid. 1 2 3 4						5		
16. I can usually realize quickly when a friend is angry. 1 2 3 4 5						5		
17.	17. I often get swept up in my friend's feelings. 1 2 3 4 5							5
18. My friend's unhappiness doesn't make me feel anything. 1 2 3 4 5							5	
19	19. I am not usually aware of my friend's feelings. 1 2 3 4 5							



20. I have trouble figuring out when my friends are happy.

5

1

2

3

#### APPENDIX B

#### WAYNE STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD APPROVAL



IRB Administration Office 87 East Canfield, Second Floor Detroit, Michigan 48201 Phone: (313) 577-1628 FAX: (313) 993-7122 http://irb.wayne.edu

#### **NOTICE OF EXPEDITED APPROVAL**

To: Todd Dollar

Theoretical & Behavior Foundations

25943 Woodward Ave. Unit 101

From Dr. Deborah Ellis or designee D. A. Kins, Ph.D / 2- a

Chairperson, Behavioral Institutional Review Board (B3)

Date: May 18, 2016

RE: IRB #:

043916B3E

Protocol Title: Person-level Factors Associated with Bullying and Bystander Experiences of Children and

Adolescents

Funding Source:

Protocol #:

1604014824

**Expiration Date:** 

May 17, 2019

Risk Level / Category: 45 CFR 46.404 - Research not involving greater than minimal risk

The above-referenced protocol and items listed below (if applicable) were **APPROVED** following *Expedited Review* Category (#7)\* by the Chairperson/designee *for* the Wayne State University Institutional Review Board (B3) for the period of 05/18/2016 through 05/17/2019. This approval does not replace any departmental or other approvals that may be required.

- Revised Protocol Summary Form (revision received in the IRB office 05/09/16)
- Research Protocol Dissertation (received in the IRB office 04/07/16)
- · Medical records are not being accessed therefore HIPAA does not apply
- A waiver of consent and waiver of written documentation of consent has been granted according to 45CFR 46 116(d) and 45CFR 46 117(c) and justification provided by the Principal Investigator in the Protocol Summary Form.
   This waiver satisfies: 1) risk is no more than minimal, 2) the waiver does not adversely affect the rights and welfare of research participants, 3) the research could not be practicably carried out without the waiver and 4) providing participants additional pertinent information after participation is not appropriate.
- Parental Supplemental Information Letter with Decline to Participate Option (revision dated 05/09/2016)
- Adolescent Assent Form Ages 13 17 (revision dated 05/09/16)
- Oral Child Assent Form Ages 7-12 (revision dated 05/09/16)
- Data Collection Tool: Survey
- Please note: This submission was reviewed under the IRB Administration Office Flexible Review and Oversight Policy, therefore the expiration date is May 17, 2019.
- Federal regulations require that all research be reviewed at least annually. You may receive a "Continuation Renewal Reminder" approximately
  two months prior to the expiration date, however, it is the Principal Investigator's responsibility to obtain review and continued approval before the
  expiration date. Data collected during a period of lapsed approval is unapproved research and can never be reported or published as research
  data.
- All changes or amendments to the above-referenced protocol require review and approval by the IRB BEFORE implementation.
- Adverse Reactions/Unexpected Events (AR/UE) must be submitted on the appropriate form within the timeframe specified in the IRB Administration Office Policy (http://www.irb.wayne.edu//policies-human-research.php).

NOTE:



- 1. Upon notification of an impending regulatory site visit, hold notification, and/or external audit the IRB Administration Office must be contacted immediately.
- 2. Forms should be downloaded from the IRB website at each use.

\*Based on the Expedited Review List, revised November 1998

Notify the IRB of any changes to the funding status of the above-referenced protocol.



#### APPENDIX C

### PARENT INFORMATION LETTER

# Parent Supplemental Information Letter with "Decline to Participate" Option

Title of Study: Person-Level Factors Associated with Bullying and Bystander Experiences of Children and Adolescents

Research's Name: Todd Dollar, M.A.

## **Purpose**

You are being asked to allow your child to be in a research study at their school that is being conducted by Todd Dollar, M.A., in the educational psychology program from Wayne State University to learn about social goals, empathy, moral beliefs, and experiences with bullying. It is estimated that approximately 400 students will be enrolled in the study. Your child has been selected because he/she is a student at Riverside Academy.

## **Study Procedures**

If you decide to allow your child to take part in the study, your child will be asked to complete a survey and answer questions about gender, age, grade, and family structure. In addition, your child will be asked to answer questions and rate statements about his/her bullying (physical, verbal, relational) as a bully, victim, or bystander. Your child will be asked to answer questions about their social goals, perceptions of moral behavior, empathy (understanding and feeling others' emotions), and their belief in themselves to be able to help others. Your child does not have to answer any questions that you and/or he/she do not want to answer. The survey will be administered one time while your child in in school and should take approximately 30 minutes to complete. If your child does not want to participate, he/she may work quietly on his/her school related work or read silently. No identifying information will be collected or put on the survey, and no individual student can be identified based on the information on the survey. All surveys will be placed in a sealed envelope by the students and will be locked in a cabinet in the researcher's office. Should you or your child choose to withdraw from participation at anytime, this may be done without consequence. The questionnaires will be available in the school's main office for your review.

#### **Benefits**

There may be no direct benefits for your child; however, information from this study may benefit other people now or in the future.

#### Risks

There are no known risks at this time to your child for participation in this study.

#### Costs

There are no costs to you or your child to participate in this study.



## Compensation

You or your child will not be paid for taking part in this study.

### **Confidentiality**

All information collected during the course of this study will be kept confidential and without any identifiers. The surveys are completely anonymous, and no one will ever know what answers your child gives.

## **Voluntary Participation / Withdrawal**:

Your child's participation in this study is voluntary

### **Questions**

If you have any questions about this study now or in the future, you may contact Todd Dollar at the following phone number: (313) 212-3873. If you have questions or concerns about your rights as a research participant, the Chair of the Institutional Review Board can be contacted at (313) 577-1628. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff, you may also call the Wayne State Research Subject Advocate at (313) 577-1628 to discuss problems, obtain information, or offer input.

# **Participation**

If you do not contact the principal investigator (PI) within a 2-week period, to state that you do not give permission for your child to be in research, your child will be enrolled into the research. You may contact the PI, Todd Dollar, by phone (313) 212-3873 or email: todd.dollar@wayne.edu. You may also fill out the form below and return it the main office at your child's school.

### Optional Tear Off

If you do not wish to have your child participate in the study, you may fill out the form and return it to your child's teacher.

I do not allow my child _		to participate in this research
study.	Name	
Printed Name of Parent		
Signature of Parent		Date



#### APPENDIX D

### ADOLESCENT ASSENT FORM

(Ages 13-17)

Title: Thoughts, Feelings, and Issues Associated with Bullying

**Study Investigator:** Todd Dollar, M.A.

## Why am I here?

This is a research study. Only people who choose to take part are included in research studies. You are being asked to take part in this study because you are a student at your school and are in grade 6, 7, 8, or 9. Please take time to make your decision and be sure to ask questions about anything you don't understand.

### Why are they doing this study?

This study is being done to explore thoughts, feelings, and issues related to bullying.

## What will happen to me?

You will be asked to complete a survey packet.

## How long will I be in the study?

You will be in the study for approximately 20 to 30 minutes

### Will the study help me?

You may not benefit from being in this study, however information from this study may help other people in the future.

#### Will the study hurt?

There are no known risks for your participation.

## Will I get paid to be in the study?

There is no compensation for participating in the study.

### Do my parents or guardians know about this?

This study information was given to your parents/guardian.

### What about confidentiality?

The surveys are completely anonymous, and no one will ever know what answers you give.



# What if I have any questions?

For questions about the study, please call Todd Dollar at (313) 212-3873. If you have questions or concerns about your rights as a research participant, the Chair of the Institutional Review Board can be contacted at (313) 577-1628. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff, you may also call the Wayne State Research Subject Advocate at (313) 577-1628 to discuss problems, obtain information, or offer input.

# Do I have to be in the study?

You don't have to be in this study if you don't want to. You don't have to answer any questions. If you don't want to be in the study, please raise you hand and tell your decision to the researcher. If you start the survey but change your mind, simply stop answering questions or let the researcher know that you don't want to be in the study. No one will be angry if you choose not to participate or decide to stop being in the study.

## Do you agree to be in the study?

By completing the surveys, you are agreeing to participate in the study.



#### **APPENDIX E**

#### ORAL CHILD ASSENT FORM

(Ages 7 - 12)

**Title:** Thoughts, Feelings, and Issues Associated with Bullying

**Study Investigator:** Todd Dollar, M.A.

This is a research study. Only people who choose to take part are included in research studies. You are being asked to be in this study because you are a student at your school and are in grade 6, 7, 8, or 9. Please ask questions about anything you don't understand.

This study is being done to learn about thoughts, feelings, and issues related to bullying. If you take part in this study, you will be asked to fill out a survey packet. You will be in the study for approximately 20 to 30 minutes.

You may not benefit from being in this study, but information from this study may help other people in the future. There are no known risks for your participation in this study. You will not be compensated for being in this study.

A letter was sent to your parents about the study. Your parents were given the option to have you not participate. If you participate, the surveys are completely anonymous, and no one will ever know what answers you give.

You don't have to be in this study if you don't want to. You don't have to answer any questions. If you don't want to be in the study, please raise you hand and tell your decision to the researcher. If you start the survey but change your mind, simply stop answering questions or let the researcher know that you don't want to be in the study. No one will be angry if you choose not to participate or decide to stop being in the study.

For questions about the study, please call Todd Dollar at (313) 212-3873. If you have questions or concerns about your rights as a research participant, or if you want to talk to someone other than the research staff, you may call the Chair of the Institutional Review Board or the Wayne State Research Subject Advocate at (313) 577-1628 to discuss problems, obtain information, or offer input.

By completing the surveys, you are agreeing to participate in the study.



#### **APPENDIX F**

### LETTER OF SUPPORT FROM SCHOOL PRINCIPAL



# Riverside Academy West 6409 Schaefer Rd, Dearborn, MI 48126 (313) 624-3600

March 24, 2016

RE: Todd Dollar, Ph.D. Candidate, College of Education, Wayne State University Permission to Conduct Research for Doctoral Dissertation

To Whom It May Concern:

Please consider this letter as acceptance and approval to conduct research at Riverside Academy West:

This letter is to confirm that Todd Dollar, Wayne State University Ph.D. Candidate, has been granted permission to collect research data at Riverside Academy West using a self-report survey assessing student responses to questionnaires regarding bullying experiences, social goals, self-efficacy, empathy, and moral disengagement.

We look forward to the survey results. Please feel free to contact me if you have any questions.

Sincerely,

Ramzi Saab, Principal

6409 Schaefer Road, Dearborn, MI 48126 - 313.624.3200 - Fax 313.624.3201



#### APPENDIX G

#### PERMISSION: PEER EXPERIENCES QUESTIONNAIRE

RE: PEQ Inquiry - Todd Jason Dollar 3/26/16, 10:40 AM

## **RE: PEQ Inquiry**

#### Vernberg, Eric Morrison <vernberg@ku.edu>

Thu 3/24/2016 4:58 PM

To: Todd Jason Dollar <bb2286@wayne.edu>;

4 attachments (109 KB)

Victimization of self and others scale items grades 3-6.doc; Victimization of self and others scale items grades 7-12.doc; Instructions for VS and VO Scales Grades 3-6.docx; Instructions for VS and VO Scales Grades 7-12.docx;

#### Dear Todd,

You are welcome to use this measure in your research. I have attached the items for these scales, along with the instructions we have used when using these in school settings.

Thanks for your interest in this measure. I hope this works well in your dissertation project.

#### Eric

Eric M. Vernberg, Ph.D., ABPP Professor Clinical Child Psychology Program University of Kansas Lawrence, KS 66045



#### APPENDIX H

#### PERMISSION: STUDENT BYSTANDER BEHAVIOR SCALE

Re: Student Bystander Behavior Scale (SBBS) Inquiry - Todd Jason Dollar

3/21/16, 12:19 PI

## Re: Student Bystander Behavior Scale (SBBS) Inquiry

#### Robert Thornberg <robert.thornberg@liu.se>

Mon 3/21/2016 12:12 PM

To: Todd Jason Dollar <bb2286@wayne.edu>;

1 attachment (36 KB)

Survey 2013 Bystander Morality Bullying.doc;

Dear Todd,

Please feel free to use our short self-report scale on bystander behavior (SBBS). We developed that short scale for the study and in the article that your have read we reported both EFA and CFA, which confirmed the three factors (sub scales), as well as reliability outcomes for each sub scale. The positive association between pro-bully behavior and moral disengagement, the negative association between defender behavior and moral disengagement, the positive association between defender behavior and defender self-efficacy and the negative association between outsider behavior and defender self-efficacy in the findings do all support the validity of the scale. Good luck with your dissertation and feel free to send me any publication that you have authored in the future and that you think would be of my interest!

Best,

Robert

Robert Thornberg, PhD, Professor
NERA Board member and Co-ordinator for the NERA Network: Value Issues and Social Relations in Education
Department of Behavioural Sciences and Learning
Linköping University
SE-58183 Linköping
Sweden

Tel +46 13 282118 Fax +46 13 282145

http://www.ibl.liu.se/medarbetare/thornberg-robert?l=en&sc=true



#### APPENDIX I

### PERMISSION: INTERPERSONAL GOALS INVENTORY FOR CHILDREN—

#### REVISED

Re: IGI-CR Inquiry - Todd Dollar

Re: IGI-CR Inquiry

From: Elisa Trucco <etrucco@fiu.edu> Sent: Wednesday, March 23, 2016 2:18 PM

To: Todd Jason Dollar Subject: Re: IGI-CR Inquiry

Hi Todd,

Thank you for your interest in my research and the IGI-CR. This sounds like a very interesting project! The article that we have in Assessment is the best reference. We have also published two other papers using the IGI-CR (note that the first reference was conducted before we took a closer look at the psychometric properties, so items are slightly different):

Trucco, E. M., Colder, C. R., Bowker, J. C., & Wieczorek, W. F. (2011). Interpersonal goals and susceptibility to peer influence: Risk factors for intentions to initiate substance use during early adolescence. *Journal of Early Adolescence*, 31(4), 526-547 (PMCID3157938).

Trucco, E. M., Wright, A. G. C., & Colder, C. R. (2014). Stability and change of social goals in adolescence, Journal of Personality, 82(5), 379-389 (PMCID3939072).

As long as you provide citations for the IGI-CR you do not need additional permission. Note that the scales should be ipsatized (a definition is provided in the test) and there is a formula to calculate the vector scores. It seems that are more interested in looking at these rather than the subscales. Also note, that this measure is intended for children and adolescents.

I hope this is helpful!

Regards,

Elisa M. Trucco, Ph.D.
Assistant Professor of Psychology
Director, ReACH Lab
Florida International University
Center for Children and Families
11200 SW 8th Street, AHC 1, Room 237
Miami, FL 33199

Tel: 305-348-8426

Website: http://reachlab.fiu.edu

Adjunct Assistant Professor of Psychiatry University of Michigan Substance Abuse Program



#### APPENDIX J

# PERMISSION: MORAL DISENGAGEMENT AND SELF-EFFICACY FOR DEFENDING SCALES

Re: Moral Disengagement Scale and Self Efficacy Scale I... - Todd Jason Dollar

3/28/16, 9:40 AM

## Re: Moral Disengagement Scale and Self Efficacy Scale Inquiry

Kay Bussey <kay.bussey@mq.edu.au>

Mon 3/28/2016 8:00 AM

To: Todd Jason Dollar <bb2286@wayne.edu>;

1 attachment (21 KB)

Barchia & Bussey (2011) - for Todd - 280316.docx;

#### Dear Todd,

Sorry for the delayed response. However, there is a fairly lengthy Easter vacation down here.

You are welcome to use the measures.

I think that the scale details are in the paper. I have attached the instructions for both scales.

I think that most of the psychometric data are in the papers. However, if there is something missing let me know and I will see if I can locate it.

Yes, you are correct the MD scale ended up with 13 questions.

Please et me know if you require further.

All the best with your dissertation.

Regards, Kay.



#### APPENDIX K

#### PERMISSION: BASIC EMPATHY SCALE

RE: Request: Basic Empathy Scale - Todd Jason Dollar

3/21/16, 12:21 PM

## RE: Request: Basic Empathy Scale

#### Darrick Jolliffe < D.Jolliffe@greenwich.ac.uk>

Fri 3/11/2016 11:08 AM

To: Todd Jason Dollar <bb2286@wayne.edu>;

3 attachments (515 KB)

BES contract.pdf; BES Scoring key.pdf; BES.pdf;

#### Dear Todd,

Sorry for the delay in my reply. I have attached the scale and the scoring key. I have also attached a from that I would ask you to sign and return to me if you decide to use the scale. This allows me to keep track of who is using the scale and send out results as they become available.

Good luck with your research.

#### Darrick

Professor of Criminology Centre for Criminology University of Greenwich Old Royal Navy College London SE 10 9LS



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#### ABSTRACT

## PERSON-LEVEL PREDICTORS OF BULLYING AND BYSTANDER BEHAVIORS OF MIDDLE SCHOOL STUDENTS

by

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#### December 2016

Advisor: Barry S. Markman, Ph.D.

**Major:** Educational Psychology

**Degree:** Doctor of Philosophy

This research examined the ways in which person-level factors (social goals, self-efficacy for defending, moral disengagement, and empathy) influence bullying and bystander experiences of middle school students. Participants (N = 207) in grades 6 to 8 (ages 11- to 15-years-old) who were enrolled in a suburban Public School Academy (i.e., charter school) middle school located in Southeastern Michigan completed a self-report questionnaire on one occasion. Multivariate analysis of variance revealed gender and grade differences in person-level factors. Gender differences were found for victimization. Females experienced significantly more social victimization than males. Multiple regression analyses revealed a synergistic effect for some, but not all, person-level predictors on bullying and bystander behavior. Agentic goals, self-efficacy for defending, and moral disengagement were significant predictors. Individually, affective, but not cognitive, empathy was significant for overall, verbal, and social bullying. However, moderated multiple regression analyses revealed that gender significantly moderated the relationship between cognitive empathy and overall bullying, such that the relationship is significantly negative and stronger for males and not significant and weaker for females. Grade moderated the relationship between cognitive empathy and verbal bullying.

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