

Spring 2013

An Examination of the Forms of Bullying and Their Relationship to the Reports of Victimization in Students Grades 6-12

Christa McSorley Kulp

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AN EXAMINATION OF THE FORMS OF BULLYING AND THEIR
RELATIONSHIP TO THE REPORTS OF VICTIMIZATION IN STUDENTS GRADES

6-12

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Philosophy

By

Christa McSorley Kulp

May 2013

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Christa McSorley Kulp

2013

**DUQUESNE UNIVERSITY
SCHOOL OF EDUCATION**

Department of Counseling, Psychology and Special Education

Dissertation

Submitted in Partial Fulfillment of the Requirements
For the Degree of Doctor of Philosophy (Ph.D.)

School Psychology Doctoral Program

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AN EXAMINATION OF THE FORMS OF BULLYING AND THEIR
RELATIONSHIP TO THE REPORTS OF VICTIMIZATION
IN STUDENTS GRADES 6-12

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ABSTRACT

AN EXAMINATION OF THE FORMS OF BULLYING AND THEIR RELATIONSHIP TO THE REPORTS OF VICTIMIZATION IN STUDENTS GRADES

6-12

By

Christa McSorley Kulp

May 2013

Dissertation Supervised by Jeffrey A. Miller, Ph.D., ABPP

Bullying is a common problem among children and adolescents in which the consequences can be severe. Bullying is associated with a variety of negative outcomes and can lead to a variety of mental and physical health problems. The purpose of this study was to examine forms of bullying behaviors that were most predictive of student-reported bullying and the frequency of student-reported bullying in response to a variety of bullying behaviors. In this study, an archival dataset was utilized. Data collected in the fall of 2012 came from 8387 6th through 12th grade students who attended 124 public middle and high schools in Anne Arundel County Public Schools, Maryland. The web-based bullying survey, designed as a component of a district-wide bullying prevention initiative, was intended to assess the prevalence, type, and social norms associated with bullying and school violence.

For the first research question, logistic regression analyses indicated that teasing and name-calling were the most frequent forms of bullying and were the two primary predictors of student-reported bullying. Social and/or relational forms of bullying were overall the most frequently reported forms of bullying. In contrast, physical or direct forms of bullying and cyberbullying were the least frequent forms of bullying reported. For the second research question, a series of chi-square analyses indicated significant differences for all types of bullying behavior and whether or not student reported being bullied. Specifically, compared to student who did not report being bullied in the past month, those students who did report being bullied within the last month were more likely to report (a) being called names, (b) being threatened, (c) being teased or picked on, (d) being pushed or shoved, (e) having emails or messages sent to others about them, (f) having rumors or lies spread about them, (g) being ignored or left on purpose, (h) having sexual comments or gestures made toward them; and (i) having their property stolen. Based on the results of this current study, several different proposals for future research can be proposed, including (a) examination of the changes in bullying behaviors and reporting of bullying longitudinally, from elementary to high school and (b) comparisons between schools with and without bullying prevention programs in regard to type and frequency of student bullying behaviors and student reporting of bullying.

DEDICATION

This dissertation is dedicated to my sister, Jacquelyn M. McSorley, who believed in me, supported me, inspired me, and most importantly, loved me unconditionally. I know she has been my guardian angel through this whole process.

ACKNOWLEDGEMENT

This acknowledgements page is the most enjoyable part of the entire dissertation process. I have to admit my dissertation process took a great deal longer and was far more challenging than I had ever imagined. To have reached this goal is indescribable and I feel so blessed. I could not have completed this process without the guidance and support of several people. I would like to first thank my husband, Joshua and son Jackson, for their love and support throughout this whole process. I would not be where I am without the two of you. I love you to the moon and back. I would next like to thank my mother, Helen, and sisters, Elaine, Maureen and Alicia, whose strength and grace inspired me. I need to thank all of my nieces and nephews for their love and kindness. I would lastly like to thank my friends Erika, Heather, Karen, and Dan, for their much needed sense of humor and encouragement. Without you, I could not have completed this chapter in my life. I would also like to thank my friend Jaime for her partnership and guidance. We made a good team. I need to also thank my friend Laura for her guidance and support. I would not have survived this process. I also want to thank my Marley Middle and Solley Elementary Families. Thank you for being my cheerleaders. Last, but certainly not least, I would also like to thank my professors. I would first like to thank the chair of my dissertation Jeffrey A. Miller, Ph.D., ABPP for his wisdom, support and guidance. I am so thankful he did not give up on me even when I wanted to give up on myself. I appreciate all the time and effort you devoted to this whole process. I would also like to thank my committee members Laura M. Crothers, D.Ed., NCSP, and Tammy Hughes, Ph.D. for their expertise, leadership, and collaboration throughout this whole

process. I appreciate and acknowledge all of your hard work. I would also like to thank Catherine Bradshaw, Ph.D., and Lucia Martin for allowing me this opportunity.

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CHAPTER I

Introduction

Bullying is a common problem among children and adolescents and the consequences of bullying can be severe. Bullying is considered one of the most common forms of aggression that school-aged children experience (Nansel et al. 2001). Bullying on some level has been a school issue for decades; however, it is increasingly being recognized as a national concern. In recent studies (e.g., Gulemetova, Drury, & Bradshaw, 2012; Vaillancourt & Hymel, 2010) it was found that over 40% of teachers and school support staff stated that bullying was a significant problem in their school, and over 40% had reported witnessing at least two incidences of school bullying in the past week. In the past few decades, the topic of bullying has received greater attention from a variety of disciplines and has gained more publicity from media outlets. The increased attention from scholars and practitioners may be a direct effect of numerous school shootings, high profile bullying and cyberbullying cases spotlighted in the media, programs supporting bully victims, and YouTube videos of bullying. Thus, bullying is being taken more seriously now than in the past few decades and is no longer being condoned as a tolerable societal practice.

Although bullying has been traditionally considered a part of a child's developmental experiences, there has been an increased research focus on the psychosocial effects bullying have on a child (see Beaty & Alexeyev, 2008 and Sampson, 2012, for a review of research). Bullying is prevalent in many cultures (Ates, 2010; Beran, 2008; Jimerson, Swearer, & Espelage, 2009; Ramya & Kulkarni, 2011) and spans across all age groups (Finkelhor, 2008; Lester, Cross, & Shaw, 2012; Losel & Bender,

2011). Some researchers (e.g., Nansel et al., 2001, 2003; Vaillancourt et al., 2008) have even shown that a certain amount of peer conflict and persecution is typical during childhood

Despite the normative developmental processes involved in peer interactions, bullying, especially if it is chronic, may likely affect a child's well-being and his or her ability to function appropriately within a school setting (Beran, 2008). Victims of bullying are at an increased risk of developing depression, low self-esteem, academic underachievement, and anxiety (Cook, Williams, Guerra, Kim, & Sadek, 2010; Esbensen & Carson, 2009; Hawker & Boulton, 2000; Kauffman, 2001; Ramya & Kulkarni, 2011; Rigby, 2000; Seals & Young, 2003). Students who have been victimized by bullies may likely experience sleep disturbances and hyper-arousal (Batsche & Knoff, 1994; Olweus, 1993); they are also at increased risk for drug and alcohol abuse (Lester et al., 2012; Vineo et al., 2011). Bullying has also been associated with increased psychosomatic problems in children and adolescents (Finkelhor, 2008; Gini & Pozzoli, 2009). Overall, bullying at school has been deemed a problematic behavior that ultimately affects a student's academic achievement, social skills, and overall social, emotional, and behavioral functioning (Fox & Boulton, 2005; Hawker & Boulton, 2000; Olweus, 1993).

Defining bullying and peer victimization is difficult due to the variety of current, competing definitions. Despite the variation in explanations, aggression appears to be a common component included in most definitions of bullying (Olweus, 1993). The majority of these definitions agree that peer victimization involves physically and/or verbally aggressive interactions between at least two people. For example, Olweus (1993) created a definition of bullying using three key components. The bullying

behavior is (a) aggressive and negative, (b) intentional, and (c) involves repeatedly exerting power over another person by using physical forms such as hitting or punching, verbal forms such as name calling, and relational forms such as spreading rumors. The tripartite definition of bullying is typically used now by most researchers (Olweus & Limber, 2010; Sampson, 2012; Vaillancourt, McDougall, Hymel, & Sunderani, 2010).

Due to increased awareness of bullying and its effects on children, school administrators are receiving more pressure to develop anti-bullying programs (Beran, 2008). In order to develop appropriate programs, researchers have been seeking more information from parents, students, and school faculty members as to the most effective means to reduce bullying. Subsequently, the prevention of bullying has become a priority to school systems and school administrators (Swearer, Espelage, Vaillancourt, & Hymel, 2010). The attention has now shifted towards a paradigm of prevention.

Significance of the Problem

The significance of and research on bullying has increased dramatically over the past several years. Bullying not only affects the individual being victimized, but society as a whole. Bullying in our schools is a universal issue; however, in the U.S., focus on understanding and preventing bullying has grown exponentially. In the U.S., bullying is a pervasive problem that affects approximately one-fourth of students in grades 7 and 8 (Seals & Young, 2003). Smokowski and Kopasz (2005) reported one in three students is affected by bullying. Although researchers are beginning to understand the many aspects of bullying, there still remain many questions on how to prevent its negative effects. Understanding the correlation between forms or characteristics of bullying and the

frequency of victimization rates is paramount in developing a more comprehensive understanding of its effects on a child development, including academic performance.

The increasing knowledge of bullying and its potential psychological and behavioral effects may have a profound effect on the manner in which schools deal with bullying. School administrators are now expected to have a comprehensive approach to bullying prevention and intervention. A greater understanding of the etiology of bullying as well as its effect on school culture, academic success, and mental health, could greatly assist in the development on anti-bullying programs. A lack of data in understanding the reports of bullying and victimization could lead to poorly developed intervention and prevention programs. Thus, collecting data from students, parents and school staff on bullying perceptions, victimization and school climate will be an important step in enhancing the understanding of bullying and in preventing any unnecessary negative psychological outcomes, which could lead to the development of programs designed to ameliorate the negative psychological and academic outcomes often experienced by those who have been bullied.

The decade of the 1970's seemed to usher in a new period of examination on issues related to bullying. Bullying had emerged as an issue of public health and a relevant topic for researchers. Although it is still an expanding field, there is much to be learned about the causes of school bullying, types of bullying, and the components of effective anti-bullying intervention and prevention programs. A great deal of research indicates differing prevalence rates and definitions of school bullying, which makes it difficult to identify the causes. These depend on a variety of individual, societal and school factors. Nevertheless, research indicates that majority of school aged children will

experience bullying at some point during their academic career (Nansel et al., 2001). Children will either experience bullying as a bully, victim, or bully-victim. There can be a number of negative effects for children who bully, children who are victimized, and children who both are bullied and bully. Thus, they can share many characteristics and risk/protective factors.

In response to the school shootings at Columbine High School during the latter part of the twentieth century, national and international concerns have significantly increased in response to the harmful effects of bullying (Thompson & Cohen, 2005) and bullying has even been deemed a crime in some states. Despite no federal law dictating on how to addressing bullying, most states have created their laws and/or policies that address this issue. Esbensen and Carson (2009) found that many students who report being victimized, including bullies and victims, often experienced a variety of academic and social difficulties. Bullying has also been determined to be an indication for more violent behaviors (Nansel, Overpeck, Haynie, Ruan, & Scheidt, 2003).

One largest district-wide studies of bullying was conducted by Bradshaw, Sawyer, and O]Brennan (2007) with 15, 000 elementary, middle and high school students and staff. Bradshaw et al. (2007) found that over 49% of students reported being bullied at least once during the past month, and 30.8% of students reported bullying others during that time.. A significant percentage (40.6%) of students reported being frequency (i.e., two or more times in the past month) involved in bullying, either as a bully or victim; 23.3% reported being a frequent victim; 8.0% reported being a frequent bully; and 9.4% reported being a frequent bully or victim (Bradshaw et al., 2007). Thus, it appears as

though a significant number of children and adolescents encounter bullying while in school. There is likely at least one child in every classroom experiencing bullying.

Theoretical Basis for the Study

Considering the variety of components involved in defining bullying, there are a number of theoretical orientations that can be used to examine bullying in American schools. A number of variables must also be considered. These variables include characteristics unique to the child, family dynamics, peer group, school environment, and cultural influences when selecting a theoretical orientation. Furthermore considering that bullying behavior is a subset of aggression, there are several theories that could provide a greater conceptualization of these behaviors. In this section, two of these theories will be discussed.

Theoretical Basis for the Study

Considering the variety of components involved in defining bullying, and the multiple (e.g., peer, school, family, community) systems influencing and influenced by bullying, there are a number of theoretical orientations that can be used to examine bullying in American schools. The numerous theoretical frameworks for bullying include aspects of child development, including cognitive, moral, and social development (Beran, 2008; Kauffman, 2001); peer interactions and group identity (e.g., Schwartz, 2000; Shoemaker, 2000); family dynamics, child attachment and parenting behaviors (Finklehor, 2008; Pontzer, 2010); and the sociocultural context of the child, inclusive of school and neighborhood (Bradshaw et al., 2009; Due et al., 2009; Sampson & Groves, 1989). The theoretical lens through which this study is viewed is from social

disorganization theory (Sampson & Groves, 1989; Shaw & McKay, 1969) and social learning theory (Bandura, 1977).

Social Disorganization Theory

The major premise of social disorganization theory (Sampson & Groves, 1989; Shaw & McKay, 1969; Shoemaker, 2000), a theory from the field of criminology, is that delinquency and crime occur as a result of specific neighborhood structural and cultural conditions. That conditions of the neighborhood impact resident attitudes and behaviors was recognized by Shaw and McKay (1969) while performing research in south Chicago neighborhoods in the 1960s. Shaw and McKay (1969) discovered that high delinquency rates existed in neighborhoods lacking both structure, characterized by high poverty rates and transient residents, and a community identity. In this theory, crime and delinquency were associated with community breakdown or disorganization of the environment (Sampson & Groves, 1989; Shaw & McKay, 1969). Social disorganization theory posited that delinquency and crime emerge in neighborhoods that are structurally disadvantaged, as evidenced by high rates of poverty or low socio-economic status, single-parent families, racial or ethnic heterogeneity, and residential mobility, as well as culturally disadvantaged, as evidenced by lack of informal social control (Sampson & Groves, 1989). Sampson and Groves (1989) indicated that informal social control is defined as “community's level of social organization is measured in terms of local friendship net-works, control of street-corner teenage peer groups, and prevalence of organizational participation” (p. 774). Through the lens of social disorganization theory, it can be proposed that school disorganization, as characterized by high student poverty

rates, high numbers of transient students, and lack of social control and school identity, could predict increased rates of bullying behaviors (Bevans et al., 2007).

Social Learning Theory

In his social learning theory, Bandura (1977) proposed that behavior is a function of the person in his or her environment: this is *reciprocal determinism*. According to Bandura (1977) in his social learning theory, psychological functioning is a continuous “reciprocal” interaction between one’s environment, cognitions, and environment. The reciprocal effects of these factors and the individual’s social history can determine whether or not an individual will exhibit or display aggression behavior (Kaufman, 2001). In accordance with social learning theory, a child learns to be aggressive “through the direct consequences of aggressive and non-aggressive acts and through observation of aggression and its consequences” (Kaufman, 2001, p. 347). Bandura (1977) explained social learning theory as behaviors learned through observations. Although children follow and abide by adult and societal rules, they typically learn social cues and behavior norms through watching or observing their peers.

Problem Statement

The purpose of this study was to examine forms of bullying behaviors and student-reported bullying in 6th through 12th grade students. Bullying behaviors that were most predictive of student-reported bullying and the frequency of student-reported bullying in response to a variety of bullying behaviors were examined in this study. Descriptive statistics on the forms of bullying behaviors and student-reported bullying frequencies were also conducted to augment statistical findings on the associations between bullying behaviors and student-reported bullying. The data set came from a

large, anonymous school-based survey of student bullying and victimization reports administered via an online survey by school leaders in Anne Arundel County Public Schools, Maryland to 4th through 12th grade students in the fall of 2012. This was a secondary data analysis of this data set.

The web-based bullying survey, designed as a component of a district-wide bullying prevention initiative, was intended to assess bullying behavior and to assess student's attitude towards bullying at their respective schools.. The bullying survey was originally created in a large-scale systematic method to assess the prevalence, type, and social norms associated with bullying and school violence. The survey findings were utilized to assist school and district level administrators and staff to determine the most frequent forms of bullying behavior in order to select the most appropriate evidence-based violence prevention strategies and practices in their respective schools. The data was also intended to be used as part of their school improvement plans, which are a yearly requirement in the district that the data was collected. While the survey contained items assessing numerous constructs on bullying, such as school climate and social and emotional skills of students, the focus of this study was (a) the frequency of specific bullying behavior in the past month; and (b) the relationships between specific bullying behavior and student reports of any bullying that occurred in the past month.

Research Questions and Hypotheses

In this research study, the following questions and hypothesis were posed.

Research Question 1. Which forms of bullying are most associated with the frequency of student reported bullying?

Hypothesis 1. Teasing and/or name calling will be most associated with the frequency of student reported bullying.

Research Question 2. What is the relationship between bullying frequency and the range of forms of bullying the student has experienced?

Hypothesis 2. Bullying reports of victimization will be correlated with a variety of bullying forms.

CHAPTER II

Literature Review

The purpose of this chapter is to provide a review of the literature on bullying. The chapter begins with a section on the definition of bullying, which is followed by sections on the types and prevalence of bullying. The topic of the third section is risk factors for bullying. The fourth section is devoted to a comprehensive discussion on bullies, victims, and the relationships between bullies and victims. The social, emotional, and behavioral effects of bullying are the topics of the fifth section of the literature review. Legislation on bullying is discussed in the sixth section. The chapter ends with a summary section.

Definition of Bullying

Bullying is defined as a subset of aggression (Olweus, 1993; Sampson, 2012). Bullying is an unwanted or aggressive behavior between two individuals that involves a real or perceived power imbalance and is repeated over time (Rigby, 2003). It involves peer victimization that results from either physical and/or verbally aggressive interactions (Olweus, 1993; Sampson, 2012). Bullying can include such actions such as verbal or written harassment, excluding someone, vandalizing, starting rumors, or physical attacks (Beale, 2001). Bullying can take place in any environment such as a school, church, workplace, or neighborhood. Therefore, bullying can affect many individuals on many levels.

Researchers (e.g., Espelage & Swearer, 2003; Finkelhor, 2008; Hazler et al., 2001; Olweus, 1993; Sampson, 2012) have agreed that there are three components of bullying that differentiate it from other types of aggressive peer interaction. One is that

bullying is intentional, that is, a person bullies with an intent to harm another person (Sampson, 2012). The second component is that bullying involves an imbalance of power (Olweus, 1993). Essentially, the bully must be physically, verbally, or socially more powerful than the victim in order to be deemed a bullying situation (Hazler et al., 2001; Sampson, 2012). Olweus (1993) explained that bullying should not be considered when the situation involves two students of similar strength and size indicating there is no differential in power. The third component is that the bullying behavior is repeated: it occurs numerous times (Sampson, 2012).

Types of Bullying Behavior

Types of bullying are generally organized into (a) physical or direct bullying and (b) relational or indirect bullying (Olweus, 1993; Sampson, 2012). With the advent of technology, a new form of bullying, cyberbullying, has been recently identified in research (e.g., Kowalski et al., 2012; Lester et al., 2012; Tokunaga et al., 2010; Wang et al., 2009).

Direct bullying. Direct bullying behaviors are probably the easiest to understand and observe. Olweus (1993) described direct bullying as “open attacks on students” (p. 10). Examples of direct bullying include being threatened (e.g., to receive harm) and being slapped, kicked, hit, or punched. Emotional social tormenting (e.g., being criticized for one’s physical appearance) is considered to be direct bullying (Olweus, 1993).

Indirect bullying. Indirect bullying, also known as relational aggression or social aggression, is behavior that is less visible and more subtle in its aggression. This type of bullying is manipulative, cruel, and often covert, and is intended to destroy an

individual's self-esteem (Crick & Bigbee, 1998; Olweus, 1993). Examples of indirect bullying behaviors can include (a) spreading rumors or lies about someone, (b) teasing, (c) name-calling, (d) excluding or isolating peers, and (e) intimidation. Indirect bullying can be just as harmful as more direct forms of bullying (Crick & Grotpeter, 1996) and can ultimately have detrimental psychological effects (Beaty et al., 2008; Bradshaw et al., 2007; Rigby, 2000). However, because there are no physical signs of the behavior, relational aggression is much more difficult to detect. Relational aggression is often understated and more difficult to control because students are skilled at concealing these behaviors and teachers are more prone to minimizing behaviors. Some research has indicated that teachers consider relational aggression or indirect bullying less serious in nature than more direct forms of bullying (Mishna et al., 2005; Sampson, 2012). Consequently, some research has indicated that teachers have less empathy for students who are victims of relational types of bullying and are less likely to intervene (Hazler et al., 2001; Sampson, 2012).

Cyberbullying. Over the past few decades more and more research (e.g., Kowalski et al., 2012; Lester et al., 2012; Tokunaga et al., 2010; Wang et al., 2009) is focusing on cyberbullying. Cyberbullying can involve the improper use of cell phones (i.e. text messages, videos), emails, blogs, and social media websites (i.e. Facebook) to target another student. Children and adolescents have found creative ways to use these technologies to embarrass and humiliate their peers. Cyberbullying has been shown to be similar to relational or indirect aggression in that both forms (a) are more common in girls more so than boys; and (b) occur when the victimizer wants to avoid consequences

of his or her behavior (Lester et al., 2012; Kowalski et al., 2012; National Crime Prevention Council, 2007).

Prevalence of Bullying

The literature pertaining to bullying is replete with attempts to estimate the prevalence of bullying among children and adolescents (Bandyopadhyay, et al., 2009; Fekkes et al., 2004; Olewus, 1993). Bullying is considered to be the most enduring and underrated problem in U.S. schools (Beale, 2001; Wang, Iannotti, & Nansel, 2009). A study conducted by the U.S. Department of Health and Human Services (DHHS) (2011), documented that, in 2009, one out of five high school students reported being bullied within the past school year. According to Center for Disease Control (2011), roughly 8% of high school students admit to having bullied others, while 6.5% reported being both bullies and victims of bullying. For as many as 85% of children and young adolescents, being bullied is a common experience in school (Center for Disease Control, 2011).

In studies conducted with students in the United States starting in the 2000s, it appears that the rates of bullying has increased between 2000 and 2013. Nansel et al. (2001) found that approximately 30% of American students reported being involved in some type of bullying behavior as a bully, a victim, or bully and victim. Seals and Young (2003) found that 24% of students reported being directly involved in bullying/victimization experiences more than once a week, and that 45% of students reported that bullying occurred often in their schools. In 2008, Bradshaw et al., found that 37.6% of students surveyed reported being frequently involved in bullying. Peleg-Oren, Cardenas, Comerford, and Galea (2010) reported that 59% of students reported being bullied at some time in the past month.

Risk Factors for Bullying

Bullying is a multifaceted event that is difficult to understand and clarify. There is no single explanation that can describe why it occurs. There is also not one reason that explain why some children bully and others are victimized. However, researchers can identify potential risk factors in determining who is at increased risk for becoming a bully or victim. Bullying can happen to anyone at anytime; however, certain populations are at greater risk for bullying as well as victimization. No one risk factor can make an individual susceptible to becoming a bullying or becoming a victim of a bully, but certain traits can place them at an increased risk.

Researchers (e.g., Beaty & Alexeyev, 2008; Beran, 2008; Centers for Disease Control and Prevention, 2011; Cook, Williams, Guerra, Kim, & Sadek, 2010; Espelage & Swearer, 2003; Finkelhor, 2008; Lester, Cross, & Shaw, 2012; Swearer, Espelage, Vaillancourt, & Hymel; 2010; Olweus & Limber, 2010) has shown that certain individual factors place students at risk for participating in bullying behavior as well as students at risk for being victims of bullying. Bullies are generally defined as individuals who purposefully use their strength and/or power to intimate or hurt another individual. They have a tendency to be aggressive, violent, and display antisocial behaviors (Kauffman, 2001; Olweus, 1996). A child's temperament, social skills or basic temperament could influence their bullying behavior. In 1995, Olweus described bullies as impulsive, physically stronger, and they demonstrated a need to dominate others. Research indicates that bullies can experience impulsivity, feelings of depression and lacks the feelings belongingness and considers violence is appropriate or justified (Bosworth et al., 1999; Olweus, 1994). O'Brennan et al., (2009a) found that children who bully perceived

bullying as normal. These factors may influence children's behavior. However, we do not know why some children who may be predisposed, with psychological factors and negative home environments, do not become bullies.

Goethem et al. (2010) found that explicit bullying attitudes predicted bullying behavior; however implicit attitudes did not. Conversely, they found that an interaction between “implicit and explicit bullying attitudes” indicated that positive explicit attitudes, implicit bullying attitudes were important in predicting bullying behavior. Their study involved an assessment of implicit attitudes and whether they could predict bullying behavior controlling for explicit bullying attitudes.

Pontzer (2010) , in a study conducted with 527 university students that 57% of the students who were currently categorized as “bullies” reported being bullies during childhood, and 74% of the students who were currently categorized as “victims” of bullying were victims during childhood. Pontzer’s (2010) analysis overall found that being a bully as a young adult was significantly related to being a bully in childhood, and that being a victim of bullying as a young adult was significantly related to being a victim in childhood. as well as impulsivity, shame displacement, being male and having experience stigmatizing parenting. Despite both bullies and victims reporting experiences of stigmatizing parenting styles, bullies were more likely to report positive parent-child affect. These findings support the need to work conscientiously with the entire family system on their views of bullying.

Research results on bullying and gender are varied. Some studies indicated that boys are more involved in bullying than girls (Bradshaw, et al., 2009, Olewus, 1993). However, some studies found no significant differences between boys and girls reports of

victimization (Frisen et al., 2007; Fekkes et al., 2004). Girls are more likely to report cyber bullying than boys, but both genders equally report school bullying (Schneider, et al., 2012). Haynie et al., (2001) found in a U.S. study that more males than females were prone to being perpetrators and victims. Although most bullying occurs between students in the same grade, older students sometimes bully younger students. Some research has shown that bullying reports from both adults and children are not always accurate and the manner in which adults respond to bullying is inconsistent and ineffective (Fekkes et al., 2004).

The social, emotional, and behavioral effects. Bullying is associated with a variety of negative outcomes in childhood and adolescents. Researchers are putting a great deal of effort into examining the social/emotional/behavioral effects that bullying has on children (Beaty & Alexeyev, 2008; Bradshaw et al., 2007; Holt et al., 2007; Rigby, 2000). Being a bully or a victim can lead to a variety of mental and physical health problems. School bullying has been deemed a problematic behavior which ultimately affects a student's academic achievement, social skills, and overall social/emotional functioning (Hawker & Boulton, 2000). Batsche and Knoff (1994) acknowledged that bullying was a problem and urged researchers to consider it a form of violence. Some research has shown that bullying can even lead to depression and low self-esteem (Batsche & Knoff, 1994; Olweus, 1993).

Victims of bullying can experience a variety of mental health consequences, which can be present at the time of bullying or afterward, including internalizing problems and adjustment difficulties including suicidal ideation, depression, anxiety,

poor self-esteem, social withdrawal, and even poor academic performance (Hawker & Boulton, 2000; Losel & Bender, 2011; Olweus, 1994).

Losel and Bender (2011) found that bullying perpetration was an important predictor of later antisocial and delinquent outcomes in adolescence. Research indicates that when students are bullies or bully victims, their perceptions of the school environment can be negative and if so there is a higher likelihood that a student will respond in an aggressively or avoidant (Meyer-Adams & Conner, 2008). In addition , bullying and being bullied are linked to higher rates of violent behavior (i.e. carrying a weapon (Nansel et al., 2003)

Bananno and Hymel (2010) found that children who are victimized are at greater risk for suicidal ideation. Their study investigated why some adolescents are more prone to be negatively impacted than others. They specifically examined the risk factor of social hopelessness and the protective factor of social support in order to determine correlations between victimization and suicidal ideation. Their results further indicated that students with more perceived social hopelessness were at greater risk for suicidal ideation than those with greater perceived social support (i.e. family support) who reported lower levels of suicidal ideation (Bananno & Hymel, 2010). Acknowledging the impact of bullying, school systems are increasingly expanding their efforts to create supportive, anti-bullying programs and examining their effectiveness (Ross & Horner, 2009; Smith et al., 2005; Smith et al., 2004).

Three types of bullying involvement have been identified in the literature (Nansel at al., 2001; O'Brennan, Bradshaw and Sawyer; 2009; Schwartz, 2000). The forms are the bully, victim, and bully-victim. Nansel et al., (2001), found that approximately 30%

of American students reported being involved in some type of bully behavior as bullies, victims, or bully/victims. The term bully defines individuals who repeatedly inflict harm against their peers, a victim is defined as individuals who are repeatedly bullied by their peers, and a bully-victim is defined as an individual who both repeatedly bullies and is bullied by their peers. Studying these types of involvement will allow for a greater understand and consideration for those who are at risk for being involved.

Types of Bullying Involvement

Bradshaw et al., (2007), examined data from a district wide survey of 15, 185 students and 1,547 staff members in 75 elementary, 20 middle, and 14 high schools that examined the comparison of staff and student perspectives and experiences on peer bullies through an anonymous online survey. Results of this study indicated that they staff underestimated the number of students involved in bullying from all levels. In addition, middle school and high school students and staff both reported more exposure and concern surrounding bullying. Results further indicate that staff with greater efficacy for handling bullying situations were more likely to intervene if they saw bullying and less likely to report if they had made a negatively affect a bullying situation. It was also indicated that staff members' own experiences with bullying affected their attitudes and approach to handling bullying situations.

Characteristics of victims. Victims tend to show poor social judgment (Haynie et al., 2001), Bullying research suggests there are two main types of victims: passive or submissive and provocative victims (Olweus, 1993). According to Olweus (1993), typical or submissive victims are more common and present as more anxious, sensitive and insecure than other students, which hints to other students that they will not retaliate if

attacked. Their typical response when attacked is to respond with a “anxious or submissive reaction pattern combined (in the case of boys) with physical weakness” (p. 33). In other words they respond to physical or emotional attacks by withdrawing, crying, and/or giving in to the bully’s demands. Victims tend to show more internalizing problems (O’Brennan et al., 2009).

Fox and Boulton (2005) completed a study that used self-, peer, and teacher ratings to examine the specific social skills problems that lead to victimization. The authors found that victims of peer bullying as school were considered to have greater social skills difficulties than non-victims; in particular they found that the victims were seen as likely to:

“ (1) display a behavioral vulnerability (e.g., looking scared), (2) be non-assertive (e.g., ‘give into the bully too easily.’), (3) reward and thus reinforce the bully’s behavior (e.g., ‘cries when picked on’), (4) be withdrawn and solitary in their behavior (e.g., ‘talks very quietly’), and (5) be quite ‘provocative’ (e.g., ‘annoys other kids...’) (p. 324).

Characteristics of bully and victims. O’Brennan et al., (2009), utilizing data from 24, 345 elementary, middle, and high school students, examined children’s social-emotional attitudes in relation to their type of bullying involvement (i.e. bully, victim, or bully-victim). In other words they examined the students’ reports of aggressive impulsivity, internalizing symptoms, peer relationships, perceptions of school climate. One of the authors’ hypotheses was that there was a relationship between social-emotional and school related problems and their experience with bullying. The authors determined that bully/victims tended to be at greater risk for displaying aggressive/impulsive behavior and social emotional problems and victims showed an increased risk of internalizing symptoms. (O’Brennan et al., 2009)

In a study involving 119 high school students from Sweden, students were asked about their perceptions of bullying (Frisen, Jonsson, & Persson, 2007). Specifically, the students were asked about their opinion on why children were bullied, why some people bully others and what they felt was important in preventing bullying. The results of this study indicated that 39% reported that they had been bullied at some time during their school years, 20% stated that they had bullied others, and of these 13% reported being both bullies and victims (bully-victims). Furthermore, outcomes from this study demonstrate that those students who reported being victims report that between 7-9 years of age was the most common time to be bullied. However, those students who reported being the bullies indicated that they bullied others during the later years of 10-12 years. In regards to reasons they were bullied, the students indicate that the most common reasons individuals were bullied were related to having an unusual appearance which deviated from the norm. The students who participated in the study also indicated that they believed the most common reason for why bullies bullied others was because they had low self-esteem. Finally, this study also found that the most common belief as to what is important in making bullying stop was that the bully matured.

Wang, Iannotti, & Nansel (2009) examined four types of bullying: physical, verbal, relational and cyber among U.S. adolescents and their association with sociodemographic variables, parental support and number of friends. They also categorized the respondents into 4 types of bullying classifications (bullies, victims, bully/victims, and noninvolved). The authors utilized a revised version of the Olweus Bully/Victim Questionnaire to assess physical, verbal and relational bullying. However, two additional items were added, using the same format, to measure cyber bullying. Their

findings indicated that sociodemographic differences varied across the 4 categorizations. Findings also indicated that adolescents with higher parental support were less likely to be involved in the four types of bullying and that having more friends was associated with more bullying, but less victimization. Findings also suggested that students who reported having more friends were more associated with bullying and less victimization in regards to physical, verbal, and relational forms. In contrast, they were not associated with cyberbullying. This study was among the first to actually examine cyber bullying as a new form of bullying.

Bullying Prevention and Intervention Programs

Considering the prevalence of bullying in schools and the mental health consequences for both bullies and victims, it is imperative that schools develop prevention and intervention programs. In fact, many states have enacted bullying legislation and most schools have been required to address this issue by implementing some type of anti-bullying program (Limber & Small, 2003). For example,

Bully prevention and intervention programs have been proven successful when schools have clear policies and they are implemented appropriately (Clarke & Kiselica, 1997; Ross & Horner, 2009). Olweus and Limber (2010), indicated that bullying can be decreased significantly through school-wide efforts to decrease opportunities for bullying and to decrease opportunities for bullying behavior.

Horner & Ross (2009) completed a study in which they utilized a behavioral bullying prevention. Bully Prevention-Positive Behavior Support (BP-PBS), which hypothesized that bullying was maintained through the use of social rewards for positive behavior. The results indicated that BP-PBS correlated with a decrease in the number of

bullying incidents and an increase in the number of appropriate responses from bystanders. It should be noted that they also found that faculty and staff rated BP-PBS as effective and they were able to implement it with fidelity.

Rawana et al. (2011), completed a study in which they examined a strength base bullying program called *Strengths in Motion*. The authors aim was to evaluate the program using a mixed-method design. The study included students from grades 4 through 8 from an intervention and a comparison school. They examined bullying, strengths and classroom climate and three separate points. The results revealed that there was a significant decrease in the students' bullying over time, an increase in classroom climate, and students' personal awareness of their strengths (Rawana, Norwood, & Whitley, 2011).

One study, of 454 students in grades 7 and 8 explored the relationships of bullying and victimization to gender, grade level, ethnicity, self-esteem and depression. Twenty four percent of the population reported bullying involvement. Their findings indicated that more male students were involved in bullying than females. They also found that seventh graders reported more bullying than eight graders and there were not statistical differences in involvement based on ethnicity. The authors also found that both bullies and victims reported higher levels of depression than bullies or non-victims. Overall, there were no significant differences between groups based on self-esteem (Seals & Young, 2003).

Legislation

Although here is no federal law that addressed bullying, there are state laws that apply. As of 2012, 47 states have passed bullying prevention legislation requiring schools

to take action in addressing this problem. Srabstein et al., (2008), examined all state laws dealing with school bullying, harassment, and intimidation in the United States. They used the Antibullying public health policy to evaluate the laws. As of June 2007, 35 U.S. states has passed anti-bullying legislation that aspires to protect students in public schools and they were essentially created to hold schools and individuals accountable for costs and damages that students suffer as a result of bullying (Srabstein, Berkman, & Pyntikova, 2008). However, they found that only 16 states of the 35 have enacted statutes that incorporate comprehensive basic public health antibullying principals. This indicates that there is a critical need for the implementation of antibullying programs.

Donnon (2010) examined the function of resiliency as a model for understanding why adolescents engage bullying and aggression. He further examined developmental strengths. The study utilized the self-report Youth Resiliency: Assessing Development Strengths (YR:ADS) with 2,991 adolescents from junior and senior high schools. The results indicated that “The main findings are that (a) there is a linear relationship between bullying and acts of aggression with students’ resiliency profiles that would support a protective-protective model of resiliency, (b) adolescents with the least number of developmental strengths are consistently found to engage in bullying and acts of aggression 3 to 8 times higher than those students with the most strengths, and (3) although 31% of the students reported being bullied at least 3 or more times per month, having a strong resiliency profile was shown to be associated with lower victimization that occurred between the two extreme strengths categories.”

Chapter III

Method

The purpose of this study was to examine which forms of bullying behaviors and student-reported bullying in 6th through 12th grade students. Bullying behaviors that were most predictive of student-reported bullying and the frequency of student-reported bullying in response to a variety of bullying behaviors were examined in this study. Descriptive statistics on the forms of bullying behaviors and student-reported bullying frequencies were conducted to augment statistical findings on the associations between bullying behaviors and student-reported bullying. The data set came from a large, anonymous school-based survey of student bullying and victimization reports administered via an online survey by school leaders in Anne Arundel County Public Schools, Maryland to 4th through 12th grade students in the fall of 2012. This was a secondary data analysis using this data set.

Participants

Data collected in the fall of 2012 came from 8387 6th through 12th grade students who attended 124 public middle and high schools in Anne Arundel County Public Schools, Maryland. Of the 8387 students, 4208 (50.2%) were female and 4179 (49.8%) were male. Regarding race of students, 5147 (61.4%) were White, 1,554 (18.5%) were Black, 819 (9.8%) were Native American, 530 (6.3%) were Hispanic, and 337 (4.0%) were Asian. The majority of the participants ($n = 6778$, 80.8%) were students in 6th through 8th grades. Of the remaining grade groups, 789 (9.4%) were in 9th grade, 344 (4.1%) were in 10th grade, 185 (2.2%) were in 11th grade, and 291 (3.5%) were in 12th grade.

Power analysis. A priori power analysis was completed using G*Power 3.1.4 software in accordance with power analysis requirements for logistic regression (Faul, Erdfelder, Lang, Buchner, & Lang, 2009). For a logistic regression power analysis, specific input parameters were entered: (a) the effect size, set at medium, $f^2 = .30$; (b) an expected odds ratio difference, which was set at a standard 2.33 representing a .70/.30 probability level; (c) the expected proportion of variance (R^2) explained by the predictors, set at $R^2 = .81$; and (d) the parameters of the distribution of scores for the predictor variables, set at 0 to 1 (Faul et al., 2009). Based on these parameters, the total sample size required to achieve adequate statistical power was $N = 303$. The sample size of 8387 students far exceeded the adequate sample size needed to achieve significant power.

Measures

Forms of Bullying Behaviors. Forms of bullying behavior were measured via ten individual items developed by Bradshaw, Denham, Martin & Gill (2006). The items were dichotomously coded, 0 = no and 1 = yes, with all items starting with the phrase “Within the last month has someone ...?” The forms of bullying behavior were (a) name-calling, (b) being threatened to be hurt or hit, (c) being teased, picked on, or made fun of, (d) being pushed or shoved, (e) being hit, slapped, or kicked, (f) having emails, messages, or blogs being written about the student, (g) having rumors or lies spread about the student, (h) being ignored or purposely left, (i) being the recipient of sexual comments or gestures, and (j) having things stolen from the student.

Student-Reported Bullying. Students reported being bullied by answering one question, “How often have you been bullied during the last month?” developed by Bradshaw et al. (2006). The interval response scoring for this items was 1 = not at all, 2 = once a month

3 = two to three times a month, 4 = once a week, and 5 = two to three times a week. As such, a higher score denoted higher rates of student-reported bullying. If this question demonstrates significant skewness and/or kurtosis, indicating a non-normal distribution of scores, the item will be recoded into a dichotomous variable wherein 0 = no, bullying did not occur in the past month and 1 = yes, bullying did occur in the past month.

Gender. Gender was considered a covariate in this study. Gender was coded as a dichotomous variable where 0 = male and 1 = female.

School Type. Type of school was considered a covariate in this study. School type was coded as a dichotomous variable where 0 = high school and 1 = middle school.

Racial Group. Racial group was considered a covariate in this study. Racial group was coded as a dichotomous variable where 0 = White racial group and 1 = racial groups other than White.

The AACPS bullying work group subcommittee, led by Dr. Catherine Bradshaw, created four anonymous and parallel bullying and school violence surveys. The measures they developed examined the issues related to bullying and school violence such as prevalence (“Have you ever in your life been bullied?”); forms of victimization (Within the last month has someone tried to hurt you or make you feel bad by (i.e. emailing/instant messaging, etc); location (Where were you bullied in the last month?); support (“who who you go to for help if you were being bullied?”); social norms (“Bullies are popular at my school.”); school climate (“I feel like I belong at this school.”) (Bradshaw, Denham, Martin, & Gill, 2006). In order to develop the actual survey, AACPS contracted with a private Web-development company that created the Web versions of the surveys (the Bevans Group: <http://bevansgroup.com>).

Research Design

In the current study, a quantitative correlational research design using archival data will be employed. Quantitative research is based upon a deductive approach as opposed to an inductive approach seen in qualitative research: conclusions are drawn on statistical information rather than subjective data (Muijs, 2010). Compared to qualitative research designs, quantitative research designs allow for a greater likelihood that the results can be generalized to a broader population and can be duplicated for further research (Rosenthal & Rosnow, 2009). A correlational design was selected over an experimental design as there was no random selection of students and no random assignment of students to conditions (Muijs, 2010). Correlational designs provide a means of measuring the strength of relationships between variables; however, a disadvantage to correlational designs is that causality cannot be proven (Rosenthal & Rosnow, 2009). An archival correlational research design is required as the focus of the study is bullying and victimization, pre-existing personal factors that cannot be manipulated by the researcher (Muijs, 2010). There are advantages to using archival data; for example, archival data sets are often quite large and internal validity threats are often reduced (Shultz, Hoffman, & Reiter-Palmon, 2005). Disadvantages using archival data include the quality of the data, errors or missing data, and appropriateness of the data to study research questions (Shultz et al., 2005).

Procedures

From 2005 to 2012, students, parents and faculty members from a large Maryland public school district comprised of over 77,000 students located between Baltimore, Maryland and Washington, D.C. completed an online survey designed to assess bullying

behavior. This district is comprised of suburban, urban, and rural schools. In 2005, Anne Arundel County Public Schools (AACPS) in collaboration with Johns Hopkins Bloomberg School of Public Health (JHSPH) worked on an initiative to improve the safety and well-being of the county's students. The collaboration stemmed from student reports of fighting, bullying, and other forms of violence in 2005. This collaboration led to the creation of the AACPS Bullying Workgroup, which was composed of AACPS administrators and staff, parents and university faculty. The purpose of this collaboration was to utilize the online survey results to prevent school violence and improve school climate. The three major aims of the workgroup were to provide basic training and increase awareness of the causes and consequences of bullying and on prevention strategies for administrators and student support staff to develop an online survey system, and anonymous Web-based bullying and school violence assessment to be administered district wide to all students grades 4-12, staff and parents across the county's 116 schools, and to provide a results reporting system for administrators and safety planning process (Bradshaw, Denham, Martin, & Gill, 2006). Tested in the fall of 2012, researchers collected data from 16, 829 participants including 8,414 students (grades 6-12), 6,371 students (grades 4-5), 1,167 parents, and 887 staff across 124 public schools. For this specific data set, the data was taken from the fall of 2012 for students, grades 6-12. Data from parents, teachers and students grade 4-5 were not used.

In September of 2012, a memorandum from the workgroup was sent to all AACPS school principals, assistant principals, senior staff, and school counselors, dictating the procedure for implementing the bullying prevention initiatives. In the memorandum, each of the schools were asked to distribute a letter on the bullying and

victimization survey initiative to parents and their children via their school web-page and/or in their school newsletter. This letter included (a) an explanation of the AACPS Bullying Workgroup and its development, initiatives, and purpose; (b) information on the purpose of the parent and child surveys, including a request to obtain parental consent and child assent for the child to complete the online survey should the parent be interested in the study; (c) an overview of questions on the parent and child surveys; and (d) the procedure for completing the surveys online.

Following this step, each school was asked to administer the Bullying Survey in the fall for the fourth through twelfth grade students. It was noted, in the memorandum that the Bullying Survey had been administered during the previous academic years. The schools were also told that the resulting data regarding bullying, types of bullying, frequency, locations, and identification of bullies and victims by group would be available immediately following the administration for planning purposes.

The schools were given access to the online survey during November 15, 2012 through December 21, 2012. Students completed the surveys during their Language Arts class, computer class or a meeting with their grade level guidance counselor. The school counselors were given the option to meet with their grade levels teams in order to determine the most appropriate content area for the students to take the online survey. The students were given the online survey using school computers in the media center. The parents were given the web-page, ID and password to complete the survey at home. However, if the parents did not have access to a computer then were given the option to utilize school computers during parent/teacher conference time or American Education Week. Translated surveys were also distributed by a bilingual facilitator or ESOL

teachers. The Bullying Survey could be accessed using the AACPS home web-page or by going to <http://survey.aacps.org>.

Each team member was trained on how to administer the survey and read the results at a county wide staff meeting called the HELP conference. In addition, during the first few weeks of the school year, the school counselors gave bullying awareness lessons to the students delivered as a part of the rollout of the Code of Student Conduct as well as access to and use of the Reporting Form. When the results were completed, administrators and qualified school staff were given a password in order to preview the results. They were either given access to a quick report which provided a standard summary of all of the data on an aggregated school level. They were also given the option of an advanced report, which allowed users to review the data by selecting specific demographic characteristics and responses to specific questions. Finally, they were given the option of an executive report, which is a brief summary of the findings. This specific report shows the users to areas of concern of reports response on more critical items such as school safety (i.e. I feel safe at school).

Data Analysis

Sample and item descriptive statistical analyses will be conducted prior to statistically testing study hypotheses. Descriptive statistics will include information on the sample, including sample frequencies/percentages by gender, grade, and ethnic groups. Item descriptive information will include frequencies/percentages of the dichotomously-coded independent variables of forms of bullying behaviors and the median, mean, standard deviation, and minimum and maximum scores of the interval-

coded dependent variable of student-reported bullying. Inter-item reliabilities cannot be computed as all study variables are single items.

The dependent variable data were statistically examined for any violations of assumptions. Skewness and kurtosis values were computed and Kolmogorov-Smirnov (K-S) test conducted to determine whether variables violate the normal distribution of scale scores assumption of regression analyses (Rosenthal & Rosnow, 2008). Skewness refers to the asymmetry or symmetry of the distribution of scale scores around the scale mean score and determines whether scores show a normal distribution (Rosenthal & Rosnow, 2008). A skewness value $> +/- 1.00$ indicates significant skewness (Rosenthal & Rosnow, 2008). Kurtosis is a measure of peakedness or flatness of the distribution of scores and is an indicator of the normality of variance of variable scores (Rosenthal & Rosnow, 2008). Kurtosis is very sensitive to values of scores around the mean and in the tails of the distribution (Rosenthal & Rosnow, 2008). The kurtosis significance value is computed by dividing the kurtosis value by the kurtosis value standard error (SE); if the kurtosis significance value is greater than equal to 2, kurtosis is evident (Muijs, 2010). The K-S test determines whether a variable data show a normal distribution; if the K-S test is significant, data are not normally distributed (Rosenthal & Rosnow, 2008). The data violated the assumption of normality and thus was recoded into a dichotomous variable wherein 0 = no, I was not bullied in the past month and 1 = yes, I was bullied in the past month.

For Research Question #1, “Which forms of bullying are most associated with the frequency of student reported bullying?” as the independent variables are coded as dichotomous variables and the dependent variable is coded as a dichotomous variable, the

appropriate statistic was a logistic regression. In logistic regression, it is assumed that the relationship between the independent variables and the dependent variable is logarithmic versus linear, and as such, the relationship between variables is addressed as odds or probabilities (Muijs, 2010). The values utilized in logistic regression are the model chi-square (χ^2) and the group member classification value as overall model indicators; and odds ratio statistics and Wald χ^2 values as indicators of single item significance.

For Research Question #2, “What is the relationship between bullying frequency and the range of forms of bullying the student has experienced?”, results from the logistic regression provided information about the odds of bullying being reported. To augment logistic regression results, a series of ten χ^2 tests of independence were conducted with the dichotomously-coded independent variables of forms of bullying and the dependent variable of student-reported bullying categories of 1 = not at all, 2 = once a month, 3 = two to three times a month, 4 = once a week, and 5 = two to three times a week. The χ^2 test of independence was appropriate in that (a) the dependent variable violated the assumption of normality and as such, the student-reported bullying categories were treated as categorical variables; and (b) the χ^2 tests of independence results allowed for the examination of frequencies/percentages of students across forms of bullying by student-reported bullying categories.

CHAPTER IV

Results

The results of the analysis of the bullying survey data will be presented in this chapter. This chapter provides the results of the tests of three hypotheses. This chapter is organized into three sections: (a) sample, (b) descriptive analysis, and (c) statistical analysis of research questions.

Sample

The study sample was comprised of 8,387 6th through 12th grade students from a large Maryland public school district located between Baltimore, Maryland and Washington, D.C. Sample descriptive statistics were conducted (see Table 1). Of the 8,387 students, 4,208 (50.2%) were female and 4,179 (49.8%) were male. The sample was comprised of students who self-identified as White ($n = 5147$, 61.4%), with 1,554 (18.5%) Black students, 819 (9.8%) Native American students, 530 (6.3%) Hispanic students, and 337 (4.0%) Asian students. The majority of the sample ($n = 6778$, 80.8%) were students in 6th through 8th grades.

Table 1

Study Sample Descriptive Statistics

	Categories	Frequency	Percentage
Gender			
	Female	4208	50.2%
	Male	4179	49.8%
Ethnicity			
	White	5147	61.4%

	Black	1554	18.5%
	Native American	819	9.8%
	Hispanic	530	6.3%
	Asian	337	4.0%
<hr/>			
Grade			
<hr/>			
	Grade 6	2229	26.6%
	Grade 7	2357	28.1%
	Grade 8	2192	26.1%
	Grade 9	789	9.4%
	Grade 10	344	4.1%
	Grade 11	185	2.2%
	Grade 12	291	3.5%
<hr/>			
School			
<hr/>			
	Middle School	6809	81.2%
	High School	1578	18.8%
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Descriptive Statistics

Prior to conducting analyses for hypothesis testing, descriptive statistics were computed for the independent variables of bullying behavior and the dependent variable of being bullied as reported by the student. The ten independent variables of bullying behavior were coded as dichotomous variables (yes or no). The frequencies and percentages of bullying behavior responses are presented in Table 2. As seen in Table 2, the three most common types of bullying behaviors were (a) being teased, picked on or

made fun of (28.9%), (b) being called bad names (27.3%); and (c) having rumors or lies being spread (21.6%).

Table 2

Bullying Behaviors: Frequencies and Percentages

	Yes	No
	Frequency/%	Frequency/%
Teasing, picking on, or making fun of you	2426 (28.9%)	5961 (71.1%)
Calling you bad names	2291 (27.3%)	6096 (72.7%)
Spreading rumors or lies about you	1812(21.6%)	6575 (78.4%)
Ignoring or leaving you out on purpose	1500 (17.9%)	6887 (82.1%)
Pushing or shoving you	1304 (15.1%)	7083 (84.5%)
Threatened to hurt or hit you	1207 (14.4%)	7180 (85.6%)
Stealing your things	1167 (13.9%)	7220 (86.1%)
Hitting, Slapping, or kicking you	981 (11.7%)	7406 (88.3%)
Making sexual comments or gestures	908 (10.8%)	7479 (89.2%)
Emailing, messaging, posting a blog about you on the internet	678 (8.1%)	7406 (88.3%)

The dependent variable of student-reported bullying was measured by the item, “How often have you been bullied during the last month?” The coding of this variable was (5) = a few times a week, (4) = once a week, (3) = 2-3 times during the month, (2) = 1 time during the month, and (1) = not at all. Descriptive statistics were conducted on the dependent variable of student-reported bullying (see Table 3).

Table 3

Rates of Bullying in Past Month: Descriptive Statistics

	<i>Md</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>Skewness</i>	<i>Kurtosis</i>
How often have you been bullied in the last month?	1.00	1.74	1.23	1.00	5.00	1.59	1.28

In preparation for statistical analyses for hypothesis testing, the dependent variable data were examined for violations of assumptions. Statistics showed that the dependent variable of student-reported bullying had significant skewness, with a value of 1.59. A value of $> \pm 1.00$ signifies significant skewness (Osborne & Waters, 2002). As seen in the histogram (Figure 1), data were skewed to the right (i.e., positively skewed). Moreover, data showed significant kurtosis, with a value of 1.28. As seen in the histogram in Figure 1, the distribution was very peaked (Osborne & Waters, 2002). A significant Kolmogorov-Smirnov test statistic, $K-S(8387) = .39, p < .001$, confirmed that the data were not normally distributed.

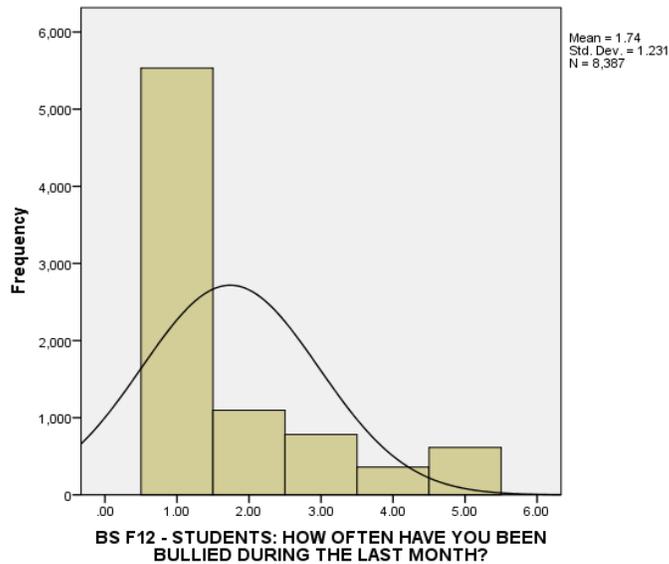


Figure 1. Histogram of Student-Report Bullying Variable

As the dependent variable of student-reported bullying violated assumptions and displayed skewness and kurtosis, a dichotomous student reported bullying dependent variable was created where (1) = yes, have been bullied in the past month (n = 2853, 34% of sample) and (0) = no, have not been bullied in the past month (n = 5534, 66% of sample). The re-computation of the dependent variable, initially an interval-coded variable, into a categorically coded or dichotomous variable required the use of statistical analyses that allowed for categorically-coded dependent variables: (a) logistic regression, wherein the dependent variable must be a dichotomous variable but the independent variables can be categorical or continuous; and (b) chi-square (χ^2) tests of independence, wherein both the independent and dependent variables are categorical (Muijs, 2010).

Statistical Analysis of the Research Questions

In this research study, the following questions and hypothesis were posed.

Research Question 1. Which forms of bullying are most associated with the frequency of student reported bullying?

Hypothesis 1: Teasing and/or name calling will be most associated with the frequency of student reported bullying.

Hypothesis 1 was supported. Both teasing and name calling were the most significant predictors of student-reported bullying in the past month. Specifically, the odds of students who were teased or picked on to report bullying in the past month were 5.13 times more likely than the odds of students who were not teased to report bullying in the past month, Wald $\chi^2(1) = 501.73, p < .001$. The odds of students who were called names to report bullying in the past month were 2.79 times more likely than the odds of students who were not called names to report bullying in the past month, Wald $\chi^2(1) = 171.55, p < .001$.

Hypothesis Testing

In order to address research question 1, a logistic regression analysis was conducted. Prior to conducting the logistic regression, demographic variables, entered as covariates, were recorded so that: (a) male = 0 and female = 1; (b) high school = 0 and middle school = 1; and (c) racial group other than White = 0 and White racial group = 1. The independent variables of bullying behaviors were coded as 0 = no, this bullying behavior did not occur in the past month, or 1 = yes, this bullying behavior did occur in the past month. The dependent variable of bullying was coded as 0 = no (no student-reported bullying), and 1 = yes (student-reported bullying). In the logistic regression, the demographic variables of school, gender, and racial group were entered together as covariates on the first step. The ten independent variables of bullying behavior were entered as a group on the second step.

Results of the logistic regression showed that the overall model was significant, $\chi^2(13) = 3777.45, p < .001$, with an overall rate of correct classification into categories of 82%. Furthermore, the effect size was large, with a Nagelkerke $r^2 = .50$ (Muijs, 2010). When examining independent predictors, all variables, with the exception of gender, were significant predictors of student reported bullying in the past month (see Table 4). Based on the results, the odds of students in middle school reporting being bullied were 1.31 times more likely than the odds of high school students being bullied in the past month, Wald $\chi^2(1) = 10.58, p = .001$; and the odds of White students being bullied were 1.37 times more likely than the odds of students from other racial groups to report being bullied in the past month, Wald $\chi^2(1) = 24.00, p < .001$.

All of the bullying behaviors significantly predicted student reported bullying in the past month (See Table 4). The most significant findings were related to (a) teasing or being picked on, (b) being called bad names, (c) having rumors or lies spread about the student, and (d) being ignore or having someone purposely leave the student. Specifically, the odds of students who were teased or picked on to report bullying in the past month were 5.13 times more likely than the odds of students who were not teased to report bullying in the past month, Wald $\chi^2(1) = 501.73, p < .001$. The odds of students who were called names to report bullying in the past month were 2.79 times more likely than the odds of students who were not called names to report bullying in the past month, Wald $\chi^2(1) = 171.55, p < .001$.

The odds of students who had rumors or lies spread about them to report bullying in the past month were 2.41 times more likely than the odds of students who did not have rumors or lies spread about them to report bullying in the past month, Wald $\chi^2(1) =$

123.86, $p < .001$. The odds of students who were ignored or left on purpose to report bullying in the past month were 2.05 times more likely than the odds of students who were not ignored or left on purpose to report bullying in the past month, Wald $\chi^2(1) = 10.58, p < .001$. Please refer to Table X for the significant odds ratios of student-reported bullying for the remaining bullying behaviors.

Table 4

Logistic Regression

	B	S.E.	Wald χ^2	df	p	Odds Ratio	95% CI Odds Ratio	
							Lower	Upper
School	.27	.08	10.58	1	.001	1.31	1.11	1.54
Gender	.08	.06	1.80	1	.180	1.09	.96	1.23
Race	.32	.06	24.00	1	.000	1.37	1.21	1.55
Calling Bad Names	1.03	.08	171.55	1	.000	2.79	2.39	3.25
Threatened to Hurt or Hit	.32	.11	9.09	1	.003	1.38	1.12	1.70
Teasing or Picking On	1.64	.07	501.73	1	.000	5.13	4.44	5.92
Pushing or Shoving	.29	.10	7.99	1	.005	1.34	1.09	1.64
Hitting, Slapping, Kicking	.26	.12	4.71	1	.030	1.29	1.03	1.63
Emailing, Messaging, Blog	.67	.13	27.71	1	.000	1.96	1.52	2.51
Spreading Rumors or Lies	.88	.08	123.86	1	.000	2.41	2.06	2.81
Ignoring or Leaving	.72	.08	72.78	1	.000	2.05	1.74	2.42
Sexual Comments or Gestures	.30	.11	7.69	1	.006	1.36	1.09	1.68
Stealing	.41	.09	19.21	1	.000	1.51	1.26	1.81
Constant	-2.58	.10	647.32	1	.000	.08		

Research Question 2. What is the relationship between bullying frequency and the range of forms of bullying the student has experienced?

Hypothesis 2: Bullying reports of victimization will be correlated with a variety of bullying forms.

In order to address question 2, a series of ten chi-square (χ^2) tests of independence were conducted. A chi-square test of independence was chosen as the independent variables of bullying behaviors were coded as 1 = yes or 0 = and the dependent variable of student reported bullying was treated as a categorical (nominal) variable, where (1) = Not at all, (2) = Once a month, (3) = A few times a month, (4) = Once a week, and (5) = A few times a week. The use of chi-square (χ^2) tests of independence also allowed for the examination of student frequencies and percentages in each student-reported bullying category.

A chi-square (χ^2) tests of independence was conducted with the independent variable of name calling and was found to be significant, $\chi^2(4) = 2909.38, p < .001$, with a large effect size, Cramer's V = .59, $p < .001$. Those students who reported being bullied in the past month were more likely to have been called names that same month than those students who did not report being bullied in the past month (see Table 5 for percentages across frequency categories).

Table 5

Chi-Square: Name Calling by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors					
	Not at All	Once a Month	A Few Times a Month	Once a Week	A Few Times a Week	
Name Calling	No	4973	668	276	90	89

	(81.6%)	(11%)	(4.5%)	(1.5%)	(1.5%)
Yes	561	429	506	270	525
	(10.1%)	(18.7%)	(22.1%)	(11.8%)	(22.9%)

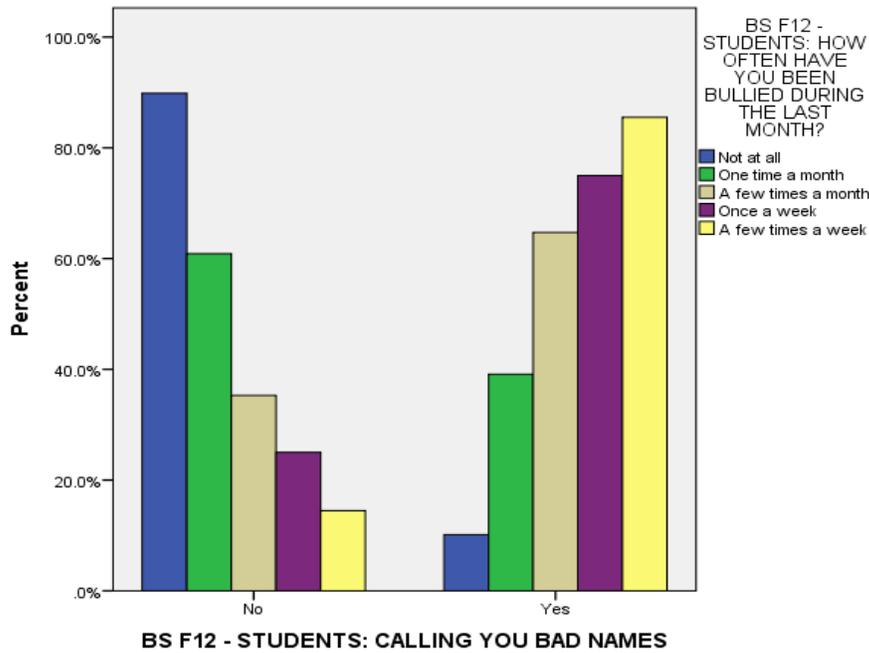


Figure 2. Student Reported Bullying Frequencies across Called Names Groups

A chi-square (χ^2) tests of independence was conducted with the independent variable of threatening to hurt or hit and was found to be significant, $\chi^2(4) = 1,845.86, p < .001$, with a large effect size, Cramer's $V = .47, p < .001$. Those students who reported being bullied in the past month were more likely to have been threatened in the past month as compared to students who did not report being bullied (see Table 6 for percentages across frequency categories).

Table 6

Chi-Square: Threatening by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors				
Threatening	Not at All	Once a Month	A Few Times a Month	Once a Week	A Few Times a Week
	No	Yes			
	5265 (73.3%)	915 (12.7%)	544 (7.6%)	216 (3.0%)	240 (3.3%)
	269 (22.3%)	182 (15.1%)	238 (19.7%)	144 (11.9%)	374 (31.0%)

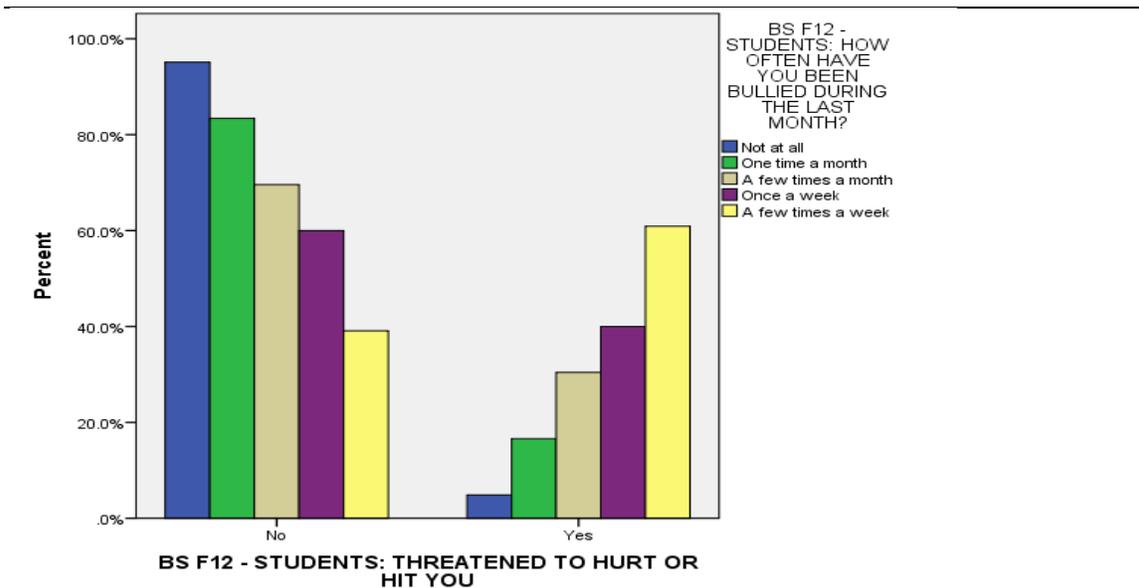


Figure 3. Student Reported Bullying Frequencies across Threatened Groups

A chi-square (χ^2) tests of independence was conducted with the independent variable of teasing, picking on, or making fun of and was found to be significant, $\chi^2(4) = 3,267.65, p < .001$, with a large effect size, Cramer's V = .62, $p < .001$. Those students who reported being bullied in the past month were more likely to have been teased that same month than those students who did not report being bullied in the past month (see Table 7 for percentages across frequency categories).

Table 7

Chi-Square: Teasing, Picking On, or Making Fun Of by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors				
Teasing, Picking On, or Making Fun Of	Not at All	Once a Month	A Few Times a Month	Once a Week	A Few Times a Week
No	4962 (83.2%)	643 (10.8%)	222 (3.7%)	65 (1.1%)	69 (1.2%)
Yes	582 (23.6%)	454 (18.7%)	560 (23.1%)	295 (12.2%)	545 (22.5%)

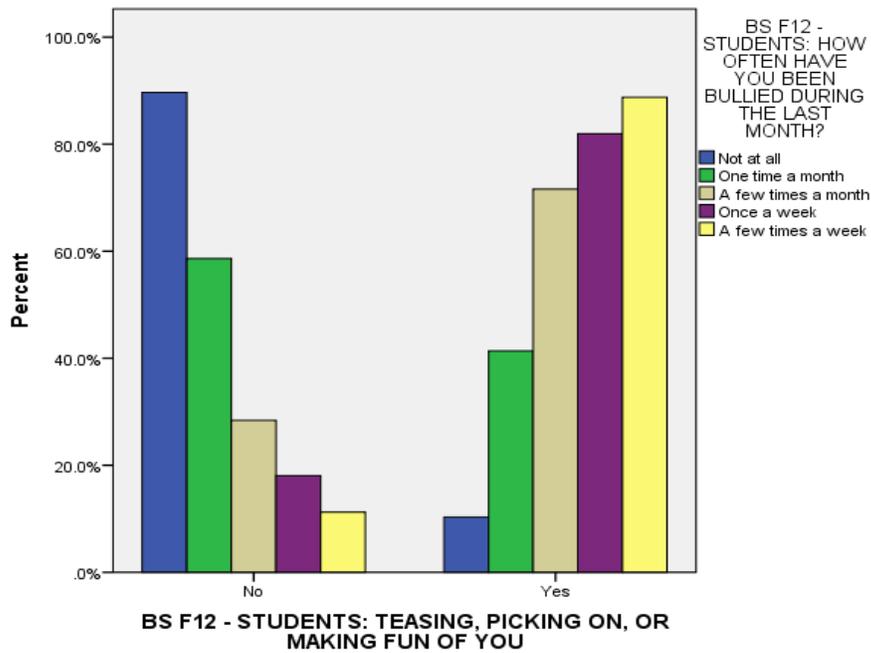


Figure 4. Student Reported Bullying Frequencies across Teased/Picked On Groups

A chi-square (χ^2) tests of independence was conducted with the independent variable of pushing and shoving. It was found to be significant, $\chi^2(4) = 1572.04$, $p < .001$, and had a large effect size, Cramer's $V = .43$, $p < .001$. Those students who reported in the past month being bullied were more likely to have been pushed or shoved in the past month as compared to students who did not report being bullied in the past month (see Table 8 for percentages across frequency categories).

Table 8

Chi-Square: Pushing or Shoving by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors				
	Not at All	Once a Month	A Few Times a Month	Once a Week	A Few Times a Week
Pushing or Shoving					
No	5177 (73.1%)	897 (12.7%)	545 (7.7%)	221 (3.1%)	243 (3.4%)
Yes	357 (27.4%)	200 (15.3%)	237 (18.2%)	139 (10.7%)	371 (28.5%)

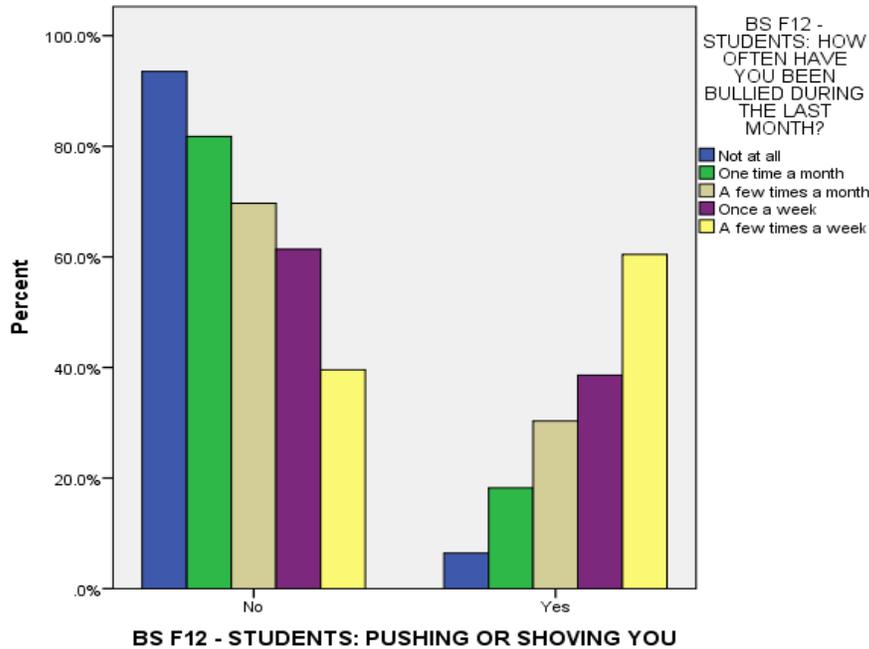


Figure 5. Student Reported Bullying Frequencies across Shoved/Pushed Groups

A chi-square (χ^2) tests of independence was conducted with the independent variable of teasing, picking on, or making fun of and was found to be significant, $\chi^2(4) = 1,334.88, p < .001$, with a medium effect size, Cramer's $V = .40, p < .001$. Those students who reported being bullied in the past month were more likely to have been hit, slapped, or kicked within that same month than those students who did not report being bullied in the past month (see Table 9 for percentages across frequency categories).

Table 9

Chi-Square: Hitting, Slapping, or Kicking by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors				
Hitting, Slapping or Kicking	Not at All	Once a Month	A Few Times a Month	Once a Week	A Few Times a Week

No	5280	943	616	266	301
	(71.3%)	(12.7%)	(8.3%)	(3.6%)	(4.1%)
Yes	254	154	166	94	313
	(25.9%)	(15.7%)	(16.9%)	(9.6%)	(31.9%)

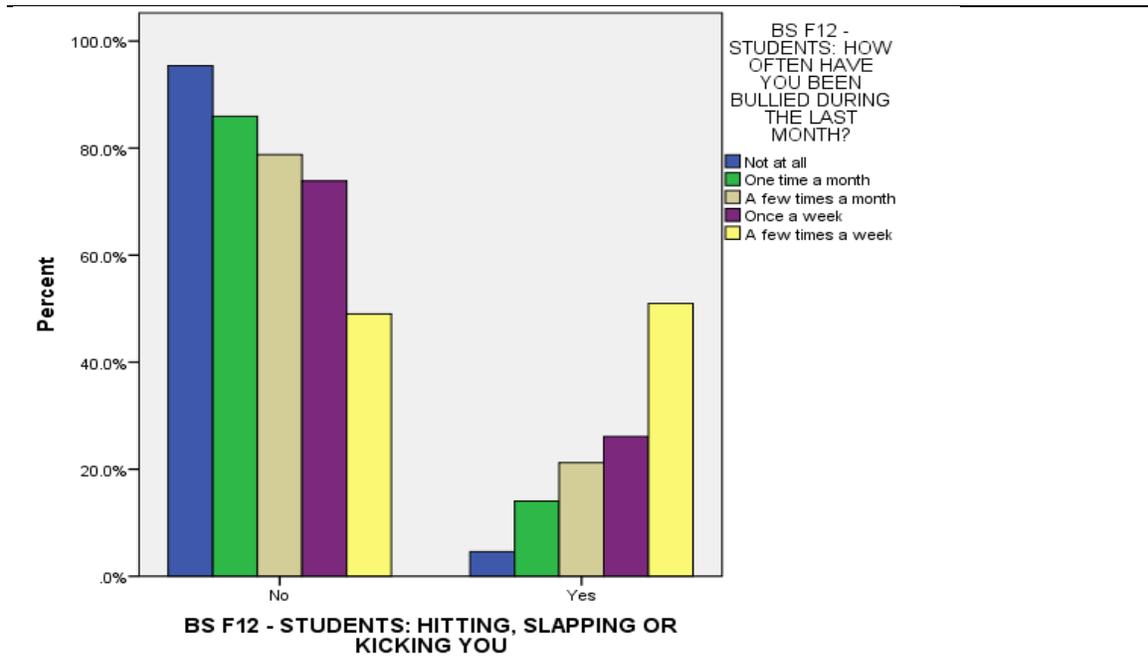


Figure 6. Student Reported Bullying Frequencies across Hit/Slapped/Kicked Groups

A chi-square (χ^2) tests of independence was conducted with the independent variable of emailing, messaging, or blogging and was significant, $\chi^2(4) = 841.47, p < .001$, with a medium effect size, Cramer's $V = .32, p < .001$. Compared to those students who did not report being bullied in the past month, those students who did report being bullied in the past month were more likely to have had emails, texts, and messages sent about them in the past month (see Table 10 for percentages across frequency categories).

Table 10

Chi-Square: Emailing, Messaging, or Blogging by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors					
Emailing, Messaging or Blogging	Not at All	Once a Month	A Few Times a Month	Once a Week	A Few Times a Week	
	No	5377 (69.7%)	971 (12.6%)	659 (8.5%)	286 (3.7%)	416 (5.4%)
	Yes	157 (23.2%)	126 (18.6%)	123 (18.1%)	74 (10.9%)	198 (29.2%)

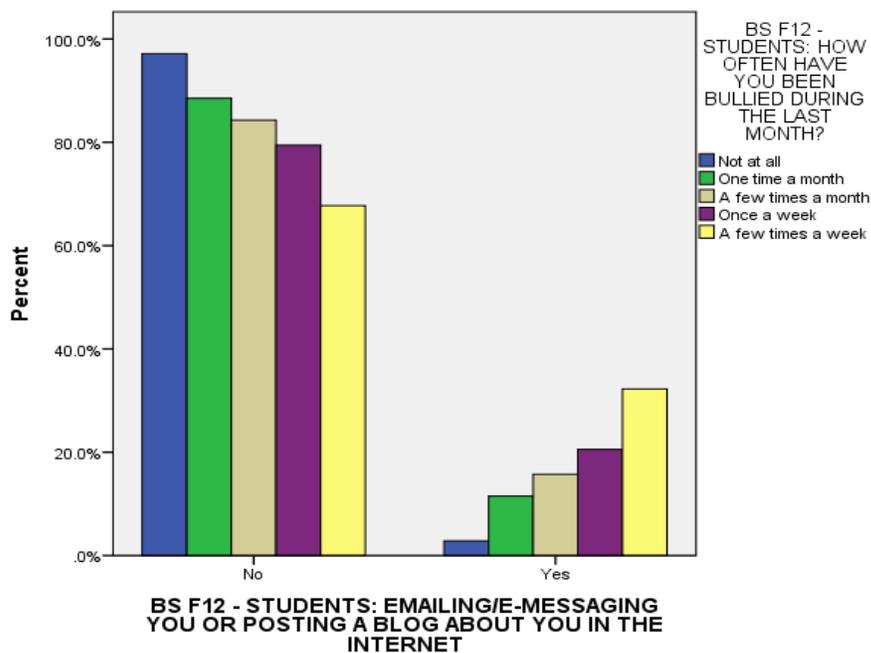


Figure 7. Student Reported Bullying Frequencies across Emailed/Messaged Groups

A chi-square (χ^2) tests of independence was conducted with the independent variable of teasing, picking on, or making fun of and was found to be significant, $\chi^2(4) = 1,740.46, p < .001$, with a large effect size, Cramer's $V = .46, p < .001$. Those students who reported being bullied as compared to those students who did not report being

bullied in the past month were more likely to have had rumors or lies spread about them (see Table 11 for percentages across frequency categories).

Table 11

Chi-Square: Spreading Rumors or Lies by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors				
Spreading Rumor or Lies	Not at All	Once a Month	A Few Times a Month	Once a Week	A Few Times a Week
	No	Yes	No	Yes	No
	5011 (76.2%)	759 (11.5%)	437 (6.6%)	164 (2.5%)	204 (3.1%)
	523 (28.9%)	338 (18.7%)	345 (19.0%)	196 (10.8%)	410 (22.6%)

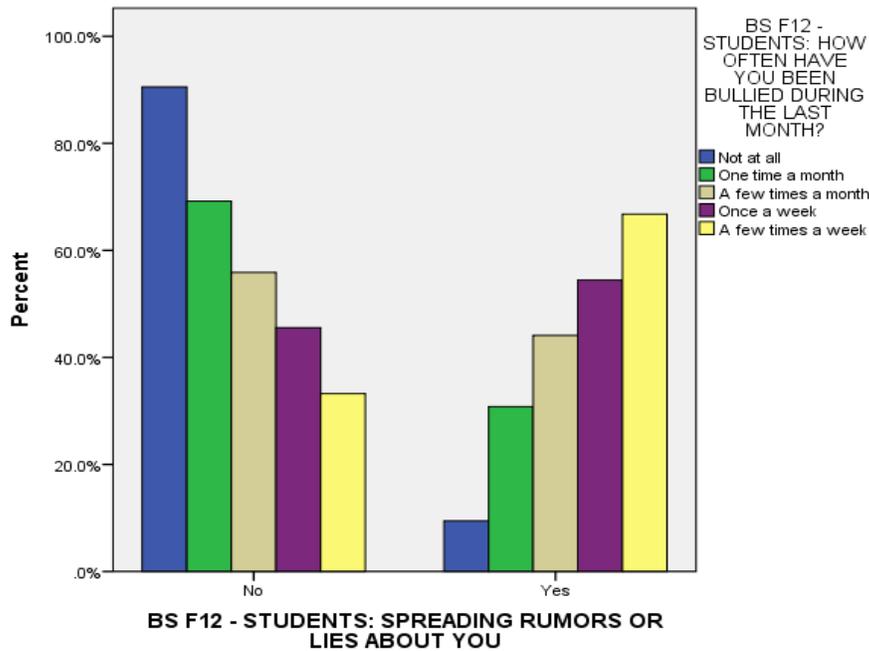


Figure 8. Student Reported Bullying Behaviors across Rumors/Lies Groups

A chi-square (χ^2) tests of independence was conducted with the independent variable of ignoring or leaving out on purpose, and it was found to be significant, $\chi^2(4) = 1481.58, p < .001$, with a medium effect size, Cramer's V = .42, $p < .001$. Those students who reported being bullied in the past month were more likely to have been ignored or left out that same month than those students who did not report being bullied in the past month ($n = 5118, 74.3\%$) (see Table 12 for percentages across frequency categories).

Table 12

Chi-Square: Ignoring or Leaving Out on Purpose by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors				
	Not at All	Once a Month	A Few Times a Month	Once a Week	A Few Times a Week
Ignoring or Leaving Out On Purpose					
No	5118 (74.3%)	819 (11.9%)	487 (7.1%)	204 (2.0%)	259 (3.8%)
Yes	416 (27.7%)	278 (18.5%)	295 (19.7%)	156 (10.4%)	355 (23.7%)

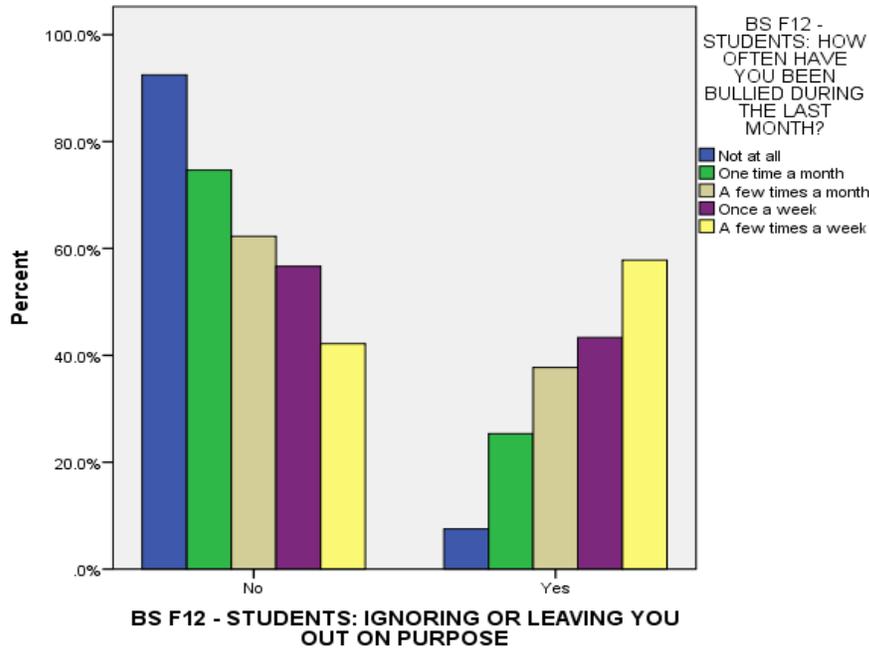


Figure 9. Student Reported Bullying Frequencies across Ignored/Left on Purpose Groups

A chi-square (χ^2) tests of independence was conducted with the independent variable of making sexual comments or gestures, and was found to be significant, $\chi^2(4) = 1125.76, p < .001$. It had a large medium size, Cramer's $V = .37, p < .001$. Compared to those students who did not report being bullied in the past month, those students who did report being bullied in the past month were more likely to have had sexual comments or gestures directed at them in the same month (see Table 13 for percentages across frequency categories).

Table 13

Chi-Square: Sexual Comments or Gestures by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors				
	Not at All	Once a	A Few	Once a	A Few
Sexual Comments					

Or Gestures		Month	Times a Month	Week	Times a Week
No	5284 (70.7%)	957 (12.8%)	637 (8.5%)	265 (3.5%)	336 (4.5%)
Yes	250 (27.5%)	140 (15.4%)	145 (16.0%)	95 (10.5%)	278 (30.6%)

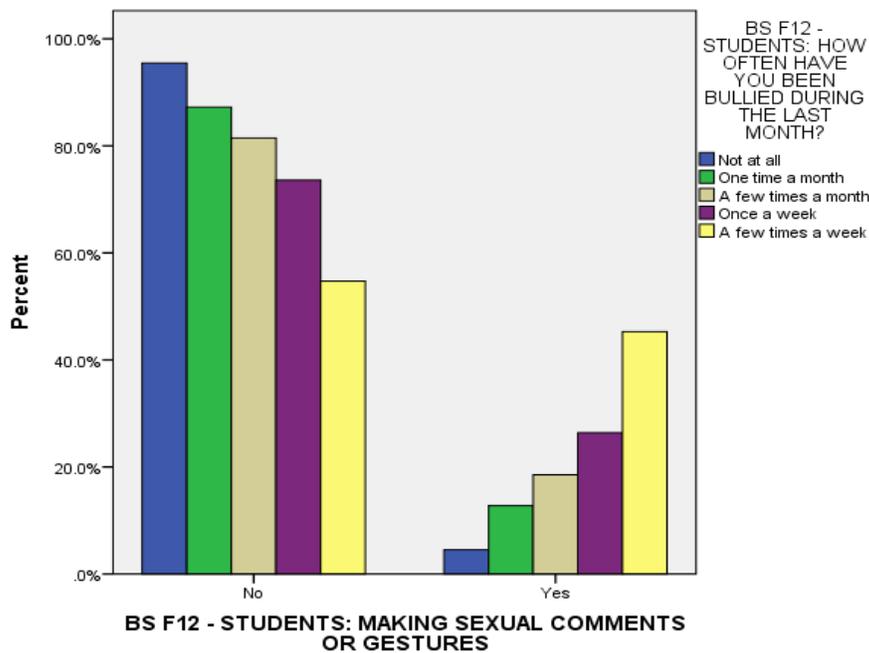


Figure 10. Student Reported Bullying Frequencies across Sexual Comments/Gestures Groups

A chi-square (χ^2) tests of independence was conducted with the independent variable of stealing. It was found to be significant, $\chi^2(4) = 1016.28, p < .001$, with a medium effect size, Cramer's V = .35, $p < .001$. Those students who reported being bullied as compared to students who did not report being bullied in the past month were

more likely to have had something stolen from them in the same month (see Table 14 for percentages across frequency categories).

Table 14

Chi-Square: Stealing by Frequency of Bullying

Type of Bullying	Frequency of Student-Reported Bullying Behaviors				
Stealing	Not at All	Once a Month	A Few Times a Month	Once a Week	A Few Times a Week
	No	Yes			
	5154 (71.4%)	892 (12.4%)	611 (8.5%)	253 (3.5%)	310 (4.3%)
	380 (32.6%)	205 (17.6%)	171 (14.7%)	107 (9.2%)	304 (26.0%)

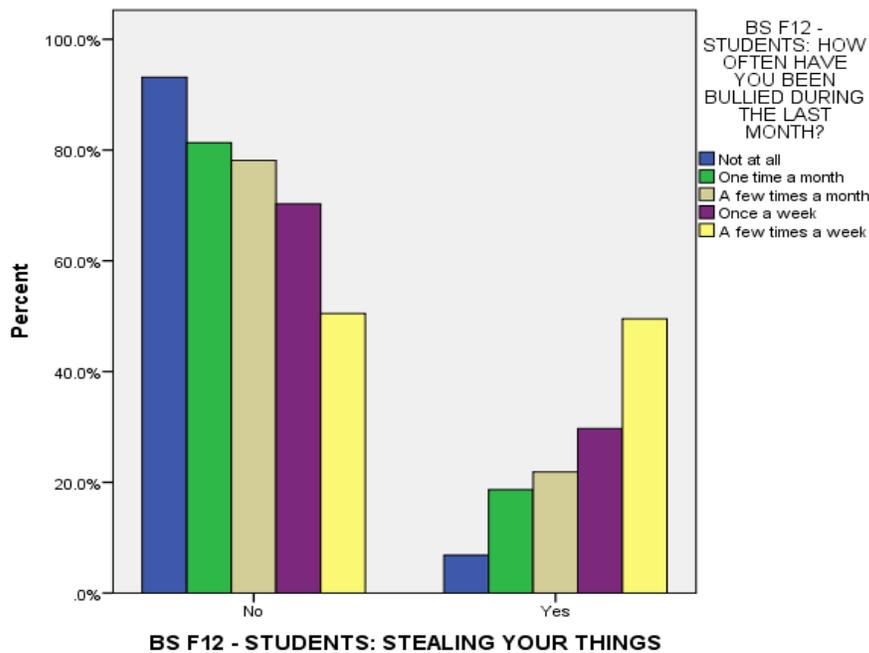


Figure 11. Student Reported Bullying Frequencies across Things Stolen Groups

CHAPTER V

Discussion

Bullying in childhood and adolescence has been the focus of research over the past several years and is considered one of the most common forms of aggression that school-aged children experience (Craig & Pepler, 1997; Nansel et al., 2001; Pellegrini & Bartini, 2000). Bullying is defined as an unwanted or aggressive behavior between two individuals that involves a real or perceived power imbalance and is repeated over time (Olweus, 1993; Rigby, 2003). Peer victimization or bullying has been identified as problematic and can affect a student's academic achievement, social skills, and overall social/emotional/behavioral functioning (Hawker & Boulton, 2000).

The forms of bullying vary in many ways and therefore can affect children in different manners. In the current study, the researcher sought to use the survey results to examine the relationship between certain forms of bullying and the frequency of student-reported bullying. Overall, the results of the current study fully supported the hypotheses. Findings from the study further provided evidence as to the significance of bullying among middle and high school students and indicate the variety of forms of bullying that students report. In this chapter, the first section is a summary of the study results. This section is followed by the second section on study conclusions. In the third section is a presentation of the limitations of the study. This chapter ends with a fourth and final section on recommendations for future research.

Summary of Results

The purpose of this study was to examine forms of bullying behaviors and student-reported bullying in 6th through 12th grade students. Bullying behaviors that were

most predictive of student-reported bullying and the frequency of student-reported bullying in response to a variety of bullying behaviors were examined in this study. Descriptive statistics on the forms of bullying behaviors and student-reported bullying frequencies were also conducted to augment statistical findings on the associations between bullying behaviors and student-reported bullying. The data set came from a large, anonymous school-based survey of student bullying and victimization reports administered via an online survey by school leaders in Anne Arundel County Public Schools, Maryland to 4th through 12th grade students in the fall of 2012. This was a secondary data analysis of this data set.

The web-based bullying survey, designed as a component of a district-wide bullying prevention initiative, was intended to assess bullying behavior and to assess student's attitude towards bullying at their respective schools.. The bullying survey was originally created in a large-scale systematic method to assess the prevalence, type, and social norms associated with bullying and school violence. The survey findings were utilized to assist school and district level administrators and staff to determine the most frequent forms of bullying behavior in order to select the most appropriate evidence-based violence prevention strategies and practices in their respective schools. The data was also intended to be used as part of their school improvement plans, which are a yearly requirement in the district that the data was collected. While the survey contained items assessing numerous constructs on bullying, such as school climate and social and emotional skills of students, the focus of this study was (a) the frequency of specific bullying behavior in the past month; and (b) the relationships between specific bullying behavior and student reports of any bullying that occurred in the past month.

For the first research question, as predicted, logistic regression analyses indicated that teasing and name-calling were the most frequent forms of bullying and were the two primary predictors of student-reported bullying. Indeed, social and/or relational forms of bullying were the most frequently reported forms of bullying: after teasing and name-calling, the most frequent bullying behaviors were spreading lies and rumors and ignoring or leaving on purpose. In contrast, cyberbullying was the least frequent form of bullying reported, and students who were emailed, messaged, or a blogged about on the internet were the least likely to report bullying. In fact, the percentage (10.8%) of students who said they were cyberbullied in this study was quite lower than the 30% to 50% seen in previous studies (e.g., Lester et al., 2012; Tokunaga et al., 2010; Wang et al., 2009). Finally, physical bullying, such as threats, being hit or slapped, or having things stolen were also less frequent forms of bullying reported; moreover, students were less likely to report being bullied if they were victims of physical bullying.

For the second research question, a series of chi-square analyses were conducted to examine the relationship between the frequency of bullying reported behaviors and whether or not the student actually reported being bullied in the past month. The chi-square tests indicated significant differences for all types of bullying behavior and whether or not student reported being bullied. Specifically, compared to student who did not report being bullied in the past month, those students who did report being bullied within the last month were more likely to report (a) being called names, (b) being threatened, (c) being teased or picked on, (d) being pushed or shoved, (e) having emails or messages sent to others about them, (f) having rumors or lied spread about them, (g) being ignored or left on purpose, (h) having sexual comments or gestures made toward

them; and (i) having their property stolen. The results revealed an interesting finding in that more students reported not being bullied within the past month than those that did report bullying. This discovery was surprising, given that prior research indicates that students are frequently involved in bullying (O'Brennan et al., 2009; Bradshaw et al., 2007). In addition, it was found that middle school students were more likely to report being bullied than high school students, which is consistent with previous research (Bradshaw et al., 2007).

Conclusions

Results of the current study reveal both consistencies and inconsistencies with prior studies of bullying forms and the frequencies of student-reported bullying behavior. Findings from this research confirm that students who were teased or called names were more likely to report bullying than those students who experience other forms of bullying behavior. The finding that middle school students were more likely to report being bullied more so than high school students is consistent with previous research (e.g., Bradshaw et al., 2007). The finding that name-calling and teasing were the most forms of bullying among this sample of students is consistent with research conducted with children and adolescents in the United States (e.g. Peleg-Oren, Cardenas, Comerford & Galea, 2012; Wang et al., 2010), as well as in Britain (e.g., Lester, Cross, & Shaw, 2012), India (e.g., Ramya & Kulkarni, 2011), Italy (e.g., Vieno, Gini, & Santinello, 2011), and Turkey (e.g., Ates, 2010). However, prior studies have not examined whether being called names or teased was predictive of students reporting being bullied, a major focus in this study.

Results from this study also documented that relational or indirect forms of bullying were the most frequently reported and were predictive of a student actually reporting that he or she was bullied in the past month. Students in grades 6th through 12th grades were more likely to not only report more frequent occurrences of indirect or relational forms of bullying, they were also more likely to report being bullied if they were victims of relational or indirect bullying. Types of bullying behavior are generally organized into indirect or direct categories, whereas the specific types of bullying behaviors are often classified as verbal, non-verbal, and non-physical. Olweus (1993) delineated between direct bullying, which involved overt, relatively open attacks on a victim from a bully, and indirect bullying, which is a less visible and more subtle form of bullying and include social isolation and intentional segregation from peer groups and peer activities.

Physical or more direct bullying is more noticeable than indirect bullying and therefore seems more logical that students would report this behavior. However, this study indicated otherwise. Indeed, research (e.g., Sampson, 2012) has shown that both students and teachers perceived relational bullying behaviors as not as severe as physical bullying behaviors. These results could have occurred for numerous reasons. One, the overall rate of students actually reporting being bullied was quite low. Most students do not report to students or school administrators that they have been bullied (Sampson, 2012). Two, the reporting of relational or indirect forms of bullying may itself be a form of relational or indirect bullying: that is, students who report being victims of relational or indirect bullying do so in order to get the bully punished while remaining anonymous. Three, there may be specific school climate or cultural factors within this group of

students that allowed for students who were victims of relational or indirect bullying behavior to more frequently report being bullied than students who were victims of physical bullying behaviors.

One inconsistency found in this study, in comparison to prior studies (e.g., Lester et al., 2012; Tokunaga et al., 2010; Wang et al., 2009) was that a small percentage (10.8%) of students reported being the victims of cyberbullying. There are various reasons as to why this result was found. One, there was only one question that measured cyberbullying, and it included being bullied via email, message board, or blog. Perhaps a separation of specific modes of technology would have yielded different and perhaps higher responses to being cyberbullying. The survey, furthermore, did not have a question on texting. Texting is one of the most frequent technological behaviors in which adolescents engage in cyberbullying (Kowalski, Limber, & Agatston, 2012) and has become, as stated by Kowalski et al. (2012), the “note-passing of the new millennium” (p. iv). Two, the sample in this study was mostly comprised of students in middle school. Middle school students may have less experience using technology and/or access to technology. However, a critical review of research on cyberbullying by Tokunaga (2010) demonstrated that age has not been significantly correlated with cyberbullying: “cyberbullying arises among all age groups in varying degrees” (p. 284). Moreover, as many of the students attended schools that had bullying prevention interventions, participation in these interventions may have influenced the low rate of cyberbullying, as it may have with all bullying behaviors.

Limitations

This current study had both strengths and limitations. One strength of the study was that it utilized a sample of over 8,000 diverse students, which resulted in more than adequate power to determine significant findings. Another strength of the study was the use of a valid and reliable survey instrument developed as part of a school district-wide bullying prevention initiative. Moreover, the results from this study that name-calling and teasing were the most frequent forms of bullying reported by students were similar to prior studies conducted both within the United States (e.g. Peleg-Oren et al., 2012; Wang et al., 2010) and outside the United States (e.g., Ates, 2010; Lester et al., 2012; Ramya & Kulkarni, 2011; Vieno et al., 2011).

There were some limitations to the study. While the sample was large in size, it did not represent a national sample and thus results of this study cannot be generalized to all children in the United States. Moreover, the student-reported bullying data violated normality: the data were skewed in that most students did not report being bullied in general. However, most students do not report to students or school administrators that they have been bullied (Sampson, 2012).

Another limitation was that students who took the survey in the public school system had exposure to bullying prevention lessons. In many of the schools that were targeted in this study, the students participated in the Positive Behavioral Interventions & Supports (PBIS) program, which is a school wide program that promoted positive behavior and academic improvement through targeted strategies. School-wide prevention models like the Olweus Bullying Prevention Program have been proven to reduce bullying behavior and improve student's perceptions of the school environment (Horner

& Ross, 2009; Olweus et al., 2007). Participation in these interventions may likely have increased anti-bullying attitudes and behaviors among students. These students may have more background knowledge in bullying and violence prevention than those students in districts without any prevention or interventions initiatives.

Recommendations for Future Research

Based on the results of this current study, several different proposals for future research can be proposed. Results from this study showed that students were more likely to report incidences of relational or indirect bullying behaviors as compared to physical bullying behaviors. Future research is needed to examine (a) if this occurs in samples different from the students in this study; and (b) if so, why certain forms of physical or direct bullying are not reported as frequently as relational or indirect forms of bullying. Another recommendation for future research would be to compare bullying behaviors and the frequency of student-reported bullying in schools with and without bullying prevention initiatives. It would be interesting to see how students, parents, and faculty respond without background knowledge or a mandated reporting system on bullying.

In this study, it was found that middle school students were more likely to report being bullied than high school students. This is consistent with prior research (e.g., Bradshaw et al., 2007). It would be beneficial for researchers to examine in greater detail why middle school students are more likely to report bullying behavior than high school students. Moreover, this study focused on students in grade 6th through 12th. It would be beneficial to understand what the relationship is, if any, between forms of bullying and whether or not the student reports being bullied in elementary school students. In contrast, it would be beneficial to examine the rates of bullying longitudinally, from

elementary to high school, to assess when certain bullying behaviors increase or decrease in frequency. While longitudinal examinations of bullying have been recently published with students in Australia (e.g., Lester et al., 2012) and New Zealand (e.g., Gibb, Horwood, & Fergusson, 2009), there has been little current longitudinal research with students in the United States.

Although cyberbullying was not a focus of this study, results in this study showed that few students reported being cyberbullied, and that students who were emailed, messaged, or a blogged about on the internet were the least likely to report bullying. Over the past few decades more and more research (e.g., Kowalski et al., 2012; Lester et al., 2012; Tokunaga et al., 2010; Wang et al., 2009) has focused on cyberbullying. It may be helpful for researchers to further examine whether cyberbullying is seen as one of the newest forms of relational or indirect bullying, as suggested by Kowalski et al. (2012) and the National Crime Prevention Council (2007). Indeed, cyberbullying has been shown to be similar to relational or indirect aggression in that both forms (a) are more common in girls more so than boys; and (b) occur when the victimizer wants to avoid consequences of his or her behavior (Lester et al., 2012; Kowalski et al., 2012; National Crime Prevention Council, 2007). Additional ideas for future research studies include examinations as to whether (a) children who are being cyberbullied may be less likely to report being bullied; and (b) parent involvement in child and adolescent of technology influence the frequency of cyberbullying.

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