


2018

# Teacher Descriptions of Oppositional Defiant Disorder and Bully-Victim Behavior Among Middle School Male Students

Randy Heller  
*Walden University*

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>

 Part of the [Education Commons](#), and the [Quantitative Psychology Commons](#)

---

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact [ScholarWorks@waldenu.edu](mailto:ScholarWorks@waldenu.edu).

# Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Randy Heller

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

## Review Committee

Dr. Donna Heretick, Committee Chairperson, Psychology Faculty

Dr. Kathyrne Mueller, Committee Member, Psychology Faculty

Dr. Rolande Murray, University Reviewer, Psychology Faculty

Chief Academic Officer  
Eric Riedel, Ph.D.

Walden University  
2018

Abstract

Teacher Descriptions of ODD and Bully-Victim Behavior Among Middle School Male

Students

by

Randy Heller

Kean University, MA, 2003

Kutztown University, BA, 1998

Dissertation Submitted in Fulfillment  
of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

June 2018

## Abstract

While current psychological theory and research suggest conceptual associations between bullying and behavioral disorders, there is a gap in the literature examining such relationships. Although contemporary theories of aggression describe emotional, social, and cognitive risk factors that are common both, associations between bully-victim patterns and ODD have not been studied to date. This exploratory study addressed this gap by surveying 27 teachers to assess their reports of aggressive behaviors and socioemotional patterns of 58 male middle school students who were identified through school investigations as involved in bullying incidents. Between-group differences for students classified as bullies, victims, or bully-victims were examined for symptoms of behavioral disorders (including ODD) and types of aggression (proactive, reactive). Measures included the Bully Behavior questionnaire, SNAP-IV, and Teacher Rating Scale. Kruskal-Wallis analyses of between-group differences indicated that, in general, bullies and bully-victims scored higher than victims on measures of behavioral symptoms and aggression but did not differ from each other on any behavioral disorders or types of aggression. Findings may reflect difficulties with measurement instruments sensitive enough to identify differences between bully and bully-victim behaviors, and with limitations to teachers' observations of students' interpersonal behaviors. Further, current school investigations do not adequately recognize bully-victim patterns. However, this study's attention to possible unique risks of behavioral disorders in bully-victim behavior patterns can inform schools, families, and communities to consider these risk factors and in their efforts to offer more effective approaches for prevention and intervention.

Teacher Descriptions of Oppositional Defiant Disorder and Bully-Victim Behavior  
Among Middle School Male Students

by

Randy Heller

Kean University, MA, 2003

Kutztown University, BA, 1998

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

August 2018

## Acknowledgments

This paper is dedicated to all those individuals who have a severe learning disability in combination with other obstacles such as ADHD. It may take some time but, you can achieve your goals!

I truly and sincerely dedicate this paper to Dr. Donna Heretick, my dissertation committee chairperson. Despite many tumultuous and challenging years, Dr. Heretick has been not only a mentor, but someone who inspires me to be better, despite my many obstacles. I am very lucky to have added Dr. Heretick into my life. She understands my educational obstacles as well as the neurological impact of ADHD has played. She is an outstanding human being and I am very lucky to have found her.

Moreover, I would like to thank my second committee member, Dr. Kathleen Mueller, for her assistance in solidifying my research by posing good questions and making valid suggestions. I thank my URR, Dr. Rolande Murray, in providing great insight to strengthening my dissertation.

I also dedicate this paper to my unbelievable wife, Allison. The mother of our four children and the “ying” of our relationship. Words can never describe how amazed I am for all things she can do, each and every day.

To my mother who provide the foundation to allow me to come this far, with her unselfish support and dedication to my earlier education. To my father who instilled a strong work ethic by working many hours a week to provide for the family.

To my children, Ryan, Aaron, Ethan, and Chloe, for being such terrific kids and may your futures be fully of happiness, healthiness, and success.

## Table of Contents

List of Tables .....	v
Chapter 1: Introduction to the Study.....	1
Introduction.....	1
Problem Statement .....	2
Purpose of the Study .....	3
Research Questions and Hypotheses .....	3
Theoretical Foundation .....	5
Nature of the Study .....	8
Definitions.....	10
Assumptions.....	12
Scope and Delimitations .....	12
Limitations .....	13
Significance of This Study.....	13
Summary .....	15
Chapter 2: Literature Review .....	17
Introduction.....	17
Literature Search Strategy.....	18
Theoretical Foundation .....	19
Aggression Theories .....	19
Oppositional Defiant Disorder (ODD).....	21
Bullying.....	23

Definitions of Bullying .....	23
Incidence Rates .....	23
Developmental Patterns and Bullying .....	24
Risk Factors .....	25
Developmental Patterns and Bullying .....	28
Social Consequences of Bullying .....	29
Gender Differences in Bullying .....	31
Reactive Versus Instrumental/Proactive Aggression and Bullying .....	33
Bully, Victim, Bully-Victim .....	34
The Bully .....	34
The Pure Victim .....	36
Bully-Victims .....	40
Oppositional Defiant Disorder (ODD) .....	45
Methods for Investigating Bullying Behavior and ODD .....	49
ODD and Bullying Behavior: The Gap in the Literature .....	51
Summary .....	52
Chapter 3: Research Method .....	55
Introduction .....	55
Research Design and Rationale .....	56
Methodology .....	57
Population .....	57
Sampling and Sampling Procedures .....	57



Procedures for Recruitment, Participation, and Data Collection .....	59
Instrumentation .....	61
Planned Analyses .....	66
Cleaning and Screening Data.....	66
Reliability of the Observed Data.....	67
The Research Questions and Hypotheses .....	67
Descriptive Summaries of Data .....	69
Classification of Students on Bully Behavior for the Independent Variable.....	69
Testing Assumptions for Planned Statistical Analyses.....	70
Threats to Validity .....	73
Ethical Considerations .....	74
Summary and Conclusions .....	74
Chapter 4: Results.....	76
Introduction.....	76
Sampling and Data Collection .....	79
Sample Characteristics.....	83
Teacher Characteristics.....	83
Student Characteristics.....	86
Teacher Familiarity with Students Identified for Evaluation .....	87
Internal Reliability of Instrumentation.....	89
Data Cleaning and Screening.....	90
Tests of Assumptions for Statistical Analyses.....	93

Normality .....	93
Tests of Research Hypotheses .....	94
Oppositional Defiant Disorder (ODD).....	97
ADHD Hyperactivity/Impulsivity .....	98
ADHD Initiative.....	99
ADHD Inattention/Overactivity.....	1100
Aggression/Defiance.....	1100
Proactive and Reactive Aggression .....	103
Summary.....	104
Chapter 5: Discussion, Conclusions, and Recommendations.....	106
Introduction.....	106
Research Hypotheses and Results.....	107
Interpretation of the Findings.....	107
Discussion of Results.....	108
Limitations of the Study.....	109
Recommendations.....	112
Identifying Bully and Bully-Victim Behavior Patterns .....	112
Ongoing Examination of Relationships between ODD and Bully-Victim Patterns.....	112
Summary and Implications .....	113
References.....	115
Appendix A: Teacher’s Student Familiarity Questionnaire.....	140

List of Tables

Table 1. Demographic Characteristics of Teacher Informants ..... 84

Table 2. Frequencies in Teacher Familiarity with Students on Formal Investigation  
Report Whom They Had Taught..... 87

Table 3. Cronbach’s Alphas for Internal Consistency of Measurement Instruments ..... 90

Table 4. Descriptive Statistics for Ratings on SNAP-IV and Revised Teacher Rating  
Scale Items for Each Student Bully-victim Group (Based on Formal Investigation  
Reports)..... 91

Table 5. Shapiro-Wilks Test of Normality for SNAP-IV and Revised Teacher Rating  
Scale Scores ..... 94

Table 6. Between-Group Differences for Teachers’ Ratings of Students in Three Bully-  
Victim Groups on Dependent Measures ..... 97

Table 7. Results of Post Hoc Pairwise Comparisons for Teachers’ Descriptions of  
Students in Three Bully/Victim Groups on ODD Scores ..... 98

Table 8. Results of Post Hoc Pairwise Comparisons for Teachers’ Descriptions of  
Students in Three Bully/Victim Groups on ADHD Hyperactivity/Impulsivity Scores  
..... 99

Table 9. Results of Post Hoc Pairwise Comparisons for Teachers’ Descriptions of  
Students in Three Bully/Victim Groups on ADHD Initiative Scores..... 100

Table 10. Results of Post Hoc Pairwise Comparisons for Teachers’ Descriptions of  
Students in Three Bully/Victim Groups on ADHD Inattention/Overactivity Scores  
..... 101

Table 11. Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of  
Students in Three Bully/Victim Groups on Aggression/Defiance Scores.....101

Table 12. Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of  
Students in Three Bully/Victim Groups on CD Behavior Scores.....102

Table 13. Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of  
Students in Three Bully/Victim Groups on Proactive Aggression Scores ..... 104

Table 14. Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of  
Students in Three Bully/Victim Groups on Reactive Aggression Scores ..... 104

## Chapter 1: Introduction to the Study

### **Introduction**

Bullying in schools is a national problem that impacts our youth, families, school environments, and even the larger communities (Campbell, 2005). Recent reports have indicated that 25% of students are bullied during the school year (U. S. Dept. of Education, 2015), but slightly more than one third of students who are bullied report it (Petrosino, Guckenburg, Devoe, & Hanson, 2010). Bullying is a form of peer aggression that can have severe consequences for individual students, or even the school climate. Where bullying thrives, there may be students, teachers, and other personnel who experience undue stress, absences, and negative emotional effects (Kartal & Bilgin, 2009). Both bullies and victims of bullying are at risk for a variety of emotional, physical, substance abuse, and academic problems (Center for Disease Control, 2012; Gini & Pozzoli, 2013). Sadly, students who are victims of bullies are more than twice as likely to report suicidal ideation and are three times more likely to attempt suicide than non-bullied peers, and bully-victims, those who both bully and are victims of bullying, are at highest risk (Espelage & Holt, 2013).

Students, teachers, parents, and the community at large are challenged to gain better understanding of the dynamics of bullying to find effective methods both for prevention and intervention (Smith, Ananiadou, & Cowie, 2003). School counselors (formally named *guidance counselors*) often are the frontline in working with the students, teachers, principals, and parents of youth who are affected, whether as perpetrators, victims, or witnesses of this form of aggression. Thus, it is important to

understand the dynamics of bullying behaviors to be able to provide sensitive and appropriate approaches for prevention and for intervention (Jacobsen & Bauman, 2007).

In Chapter 1, I include a statement of the problem and purpose of this study, the research questions, the nature of the study, the theoretical foundation, operational definitions of key terms, a summary of assumptions, limitations, and delimitations of the study, significance of the study, and a summary.

### **Problem Statement**

While attention often is given to the children who only bully or those who only are victims of this type of interpersonal aggression, researchers have identified another behavior pattern, the bully-victim (also described as the provocative victim; Batsche & Knoff, 1994). Bully-victims are individuals who experience both victimization by a bully and exhibit bullying behaviors towards others. Less is known about the bully-victim and what differentiates this youth from either the “pure” bully or “pure” victim. The bully-victim is a target of bullies, but then reacts impulsively and socially inappropriately with aggression and bully’s others (Solberg & Olweus, 2003).

Researchers’ descriptions of bully-victims have indicated possible correlates with diagnostic criteria for oppositional defiant disorder (ODD). Bully-victims often are described as having poor social skills, emotional control deficits, and aggression that is impulsive and reactive (McKinney & Renk, 2007). For example, bully-victims exhibit significantly higher levels of reactive, impulsive aggression when compared to bullies (Burton, Florell, & Gore, 2013). Similarly, youths with ODD are characterized by impulsivity and irritability, as well as deficits in problem-solving, social information

processing, and social skills. However, more work is needed to clarify relationships between ODD and bullying behaviors. Findings regarding ODD and bullying often are inconsistent due to methodological confounds, such as failure to differentiate ODD from conduct disorder (CD) or attention deficit hyperactivity disorder (ADHD; Kokkinos & Panayiotou, 2004; Kumpulainen, Rasanen, & Pura, 2001).

### **Purpose of the Study**

Without understanding the unique risk factors for students who are identified as bully-victims, it is difficult for schools, mental health personnel, and parents to offer adequate support and intervention for these students. The purpose of this quantitative, exploratory study was to examine differences between youths who have demonstrated different patterns of bullying behaviors/experiences, as reported through formal school investigations, on symptoms of behavioral disorders and aggressive patterns, as described by teachers. The independent variable was bullying behavior (bully, victim, bully-victim; see Olweus, 1993). The dependent variables included symptoms of behavioral disorders (ODD, CD, and ADHD; APA, 2013) and types of aggression (proactive/instrument, reactive impulsive; see Crick & Dodge, 1996).

### **Research Questions and Hypotheses**

I developed the following general research question for this study: Are there between-group differences in symptoms of childhood behavioral disorders and/or forms of aggression in relation to male students' bullying behaviors/experiences (i.e., bully, victim, bully-victim)? Specific questions and hypotheses were as follows:

**Research Question 1.** Do teachers report differences in levels of symptoms of behavioral disorders (ODD, ADHD, CD as measured by the SNAP-IV) among students who differ in bullying behaviors/experiences (bullies, victims, bully-victims; as measured by the Bully Behavior Questionnaire)?

**H1<sub>0</sub>.** There will be no reported differences in levels of symptoms of behavioral disorders as a function of bully behavior/experiences.

**H1<sub>a1</sub>.** In general, reported levels of symptoms of behavioral disorders will differ as a function of bully behaviors/experiences.

**H1<sub>a2</sub>.** Bully-victims will be described as having the highest levels of symptoms related to ODD, frequently with ADHD, when compared with bullies and victims.

**H1<sub>a3</sub>.** Bullies will be described as having the highest levels of related to CD, when compared with bullies and victims.

**H1<sub>a4</sub>.** Victims will be described as having the lowest levels of symptoms on behavioral disorders. That is, victims will be described as lowest on symptoms of ODD, CD, and ADHD.

**Research Question 2.** Do teachers report differences in forms of aggression (reactive, proactive; as measured by the Teacher Rating Scale) among students who differ in bullying behaviors/experiences (bullies, victims, bully-victims, as measured by the Bully Behavior Questionnaire)?

**H2<sub>0</sub>.** When bullies, victims, and bully-victims are compared, there will be no reported differences in forms of aggression as a function of bully behavior/experiences.



**H2a.** In general, reported forms of aggression will differ as a function of bully behavior/experiences. Specifically, when bullies, victims, and bully-victims are compared, bully-victims will have the highest scores on reactive aggression, while victims will have the lowest.

**H2b.** When bullies, victims, and bully-victims are compared, victims will be described as having the lowest scores for proactive aggression, relative to bullies and bully-victims. It is expected that bullies will be described as higher on proactive aggression than bully-victims.

### **Theoretical Foundation**

Theories on human aggression continue to evolve. The challenge has been to integrate diverse approaches which have focused on specific dimensions of aggression such as instinctive, physiological arousal, situational, learning, cultural, cognitive/information processing, and personality/individual differences (Bushman & Huesmann, 2010).

Dodge (1980), Crick and Dodge (1996), and Huesmann (1988) have proposed well-supported developmental models of aggression that are based on principles of information processing. In keeping with social learning theory (Bandura, 2001), Huesmann (1988) postulated that an individual's characteristic level of aggressiveness is established in childhood, where children learn scripts to represent and respond to situations. According to this kind of information processing approach, the individual's response to situations will be mediated by cognitive structures and networks developed

early in life by early social experiences. Bushman and Huesmann (2010) described the process as follows:

Aversive events automatically arouse negative emotions, which makes aggressive scripts more accessible. If these aggressive scripts pass through a filter of normative and moral beliefs and seem to lead to a desirable goal, people use the script to guide their behavior. Individual differences in aggressiveness are therefore linked to individual differences in the four kinds of social cognitions involved in social problem solving — one's repertoire of scripts, world schemas, normative beliefs, and emotional reactivity. Once these cognitions are crystallized, they produce stable aggressive tendencies over the life span. (p. 840)

Children and adults with hostility attribution bias, that is, greater belief that hostility is a normative way of being in the world, also appraise others' behaviors and intentions as provocative and hostile, thus increasing the risk of aggressive responses to others (Dodge et al., 2014).

Crick and Dodge (1996) also described two forms of aggression: reactive (hostile) and proactive (instrumental). They proposed that *proactive*-aggressive children use aggression to obtain specific social goals, such as obtaining a toy rather than becoming friends. In addition, given an ambiguous situation, proactive-aggressive children were more likely to attribute hostile intent to another child than did nonaggressive peers. Crick and Dodge (1996) also predicted that *reactive*-aggressive children demonstrate even more hostile attribution bias, and even more likelihood of attributing hostility when none was intended, than proactive-aggressive children. As Crick and Dodge (1996) noted,

Reactive aggression may be maintained by a negative cycle in which: (1) a reactive-aggressive child attributes hostile intent to peers (whether it is intended by the peers or not) and retaliates aggressively, (2) the child's peers then respond with increased hostility toward the child, and (3) the child interprets the peers' hostility as confirmation of the earlier interpretation (i.e., that peers are mean). In this way, the biased social information processing of reactive-aggressive children may become a self-fulfilling prophecy (i.e., with time, peers may become more hostile towards reactive-aggressive children). (p. 999)

In addition, arousal and emotional control are key components of any integrated model of aggression. As Bushman and Huesmann (2010) noted, "People don't have to learn how to behave aggressively; it comes naturally. What people have to learn is how to inhibit their aggressive tendencies" (p. 843). They discussed the role of executive functioning that, in addition to planning, organizing, reasoning, and goal direction, also controls emotions and inhibits behavioral tendencies. Thus, both situational factors (e.g., use of alcohol) and individual differences in response to inhibition and self-control are considered important in understanding the complexities of aggressive behavior. Other theoretical models include other cognitive functions, such as working memory, in understanding individual differences, such as related to behavioral disorders, including ADHD, CD, and ODD (Barkley, 1997; Sergeant, Geurts, & Oosterlaan, 2002).

There is notable overlap between contemporary, complex biopsychosocial-emotional models of aggression and those for behavioral disorders of CD and ODD (Carr, 2013; Dodge & Pettit, 2003; Steiner, Rensing, & Work Group on Quality Issues,

2007). Environmental approaches often include a developmental sequence for ODD and CD, which begins with ineffectual parenting or family instability in the home, and then continues with peers and authority figures beyond the family, such as in the school setting (Greene et al., 2002; Patterson, Reid, & Dishion, 1992). Relatedly, other scholars have applied Bowlby's attachment theory to explain relational deficits (Carr, 2013).

The distinction between ODD and CD is relatively recent, and more work is needed to better distinguish the two (Carr, 2013). With the goal of contributing to this work, I examined between-group differences for males who differ in exhibited bullying or bully-victim behaviors, or have been victims of bullying, on comorbidity of behavior disorders (ODD, CD, ADHD) and on reactive/impulsive versus proactive/instrumental forms of aggression. I provide further support for these research questions in the literature review.

### **Nature of the Study**

To address the research questions noted above, I conducted a quantitative, exploratory, cross-sectional, causal-comparative study to examine between-group differences in teachers' descriptions of a sample of middle school male students who had been identified by school incidence reports as being involved in bullying situations (either as bully and/or victim) during the recent school year. Recent cross-lagged longitudinal research by Sentse, Kretschmer, and Salmivalli (2015) with students in grades 3-6 and 7-9 confirmed previous findings that, when compared with girls, boys are more likely to exhibit overt aggression and bullying behaviors.

I selected a causal-comparative, rather than correlational, approach because causal-comparative research provides better evidence of possible directional cause and effect relationships than simple correlational research (Mertler & Charles, 2010). The research sample was drawn from teachers of male students attending sixth through eighth grades in middle schools within two school systems.

In the first phase, I identified students who had been involved in bullying incidents involving harassment, intimidation, and bullying through formal investigations conducted in the schools in conjunction with the district/state's anti-bullying procedures. In Phase 2, I contacted teachers familiar with and having recent experiences with these identified male students and invited them to participate in the study. After receiving informed consent from teachers who agreed to participate in Phase 3, I provided each teacher a packet with an overview of the study and directions, a demographics questionnaire, the SNAP-IV, the Teacher Rating Scale, and the modified Olweus Questionnaire (the Bully Behavior questionnaire).

Students were grouped on the independent variable, bully behavior, based on behaviors confirmed through the school's formal investigations. Teachers were not aware of the student's involvement in the formal investigations. They described the students' behaviors on a questionnaire employed in previous research by Pagliocca, Limber, and Hashima (2007) to evaluate teachers and parents' descriptions of bullying behavior in groups of students. The 16 questionnaire items were adapted from the Olweus Bully/Victim Questionnaire (OBVQ; 1996) and are consistent with accepted definitions/indicators of bullying, including teasing, exclusion, physical aggression,

threats, and gestures (Hamburger, Basile, & Vivolo, 2011). The first eight questions inquired about experiences of victimization, and the second eight inquired about bullying behaviors. Responses indicated the frequency of experience for each item. Other dependent variables and measures were as follows. The Teacher Rating Scale by Brown, Atkins, Osborne, and Milnamow (1996) provided evaluations of forms of aggression demonstrated by the students. This 28-item measurement was developed to assess levels of proactive aggression and reactive aggression. I used the SNAP-IV rating scale (Bussing et al., 2008) to obtain descriptions of the students for ODD, ADHD (inattention and hyperactivity), and CD.

### **Definitions**

*Bully (“pure bully”)*: Individual who repeatedly uses aggressive actions, physical or verbal, against victims. Bullies often are more aggressive, physically stronger, and bigger than their peers (Olweus, 1993).

*Bullying*: Repeated exposure over time to negative actions against a target by one or more persons. The actions are intentional attempts to inflict injury or discomfort. The actions can be verbal, physical, or include other methods (e.g., making faces or social exclusion; Olweus, 1993).

*Bully-victim*: Individual who experiences both victimization by a bully and exhibits bullying behaviors towards others. The bully-victim is characterized by an over-reactive or emotionally uncontrolled pattern of behavior, such that their aggressive behaviors are less goal directed and more reactive than those being the bully and not the victim (Olweus, 1978).

*Conduct disorder (CD)*: A pattern of disruptive behaviors in which a person violates the basic rights of others in addition to societal rules (e.g., destruction of property and theft; APA, 2013).

*Hostile attribution bias*: Cognitive appraisal which interprets relatively ambiguous social situations as threatening and others with negative, hostile intentions (Crick & Dodge, 1996).

*Oppositional defiant disorder (ODD)*: A psychiatric diagnosis defined by patterns of negative, hostile, and defiant behaviors, occurring over a 6-month period. The person must demonstrate clinically significant impairment in his or her functioning and meet at least four of the suggested symptoms: “losing one’s temper, arguing with adults, refusing to comply with adults’ requests, annoying others, blaming others for one’s own mistakes, being annoyed easily by others, being angry, and being spiteful and vindictive” (APA, 2013, p. 219).

*Proactive aggression*: Aggression toward another where anticipated external rewards and reinforcement are aroused (Dodge & Coie, 1987; Salmivalli & Nieminen, 2002). Proactive aggression is thought to be instrumental, and used in coercion, dominance, and bullying (Olweus, 1978). Interpretation of threat is not as central in proactive aggression as in reactive aggression (Dodge & Coie, 1987).

*Pure Victim*: Individual who only experiences victimization by a bully but does not exhibit bullying behavior. Pure victims often are characterized by nervous reaction patterns and physical weakness, which may make them more likely to be targeted (Olweus, 1978).

*Reactive aggression:* Reactive aggression is a defensive response that is prompted by hostile attribution biases and perceptions of threat. It is more associated with arousal, the experience of anger, and impulsive retaliation than is proactive aggression (Dodge & Coie, 1987).

### **Assumptions**

I made several basic assumptions for this study. First, I assumed that teachers had adequate knowledge of the children's activities to judge their bullying-related behaviors as well as symptoms related to behavioral disorders. Second, I assumed that teachers responded with objectivity and honesty. Also, I assumed that the school's formal investigation reporting method had offered a representative sample of boys who were involved in bullying incidents.

### **Scope and Delimitations**

Some necessary delimitations of this study involved sampling. In keeping with research ethics, all teacher participants were volunteers. It is unknown how representative these participants' views and responses were of those teachers who were not involved in the study. In addition, the sample of males to be described and the teachers as informants were drawn from only three grade levels from a single school in one school district, and from three schools in another district within a single state located in the eastern United States. Thus, generalization to other schools, grades, and demographic groups may be limited. Further, no experimental manipulations were possible, limiting true assessment of cause and effect relationships between behavioral disorders and bullying behaviors/experiences. As a cross-sectional, rather than longitudinal, study, it is difficult



to know if the relationships between behavioral disorders and bullying will remain the same across time. Finally, it is probable that only overt aggression and bullying have been examined as more covert forms (such as relational aggression) and those which occur outside of school (including cyberbullying) either are not observed or not reported to the school.

### **Limitations**

One limitation of this study is the types of data sources and measurements I used. Specifically, I used only one source of information (teachers), and only one method for gathering data (questionnaires). Further, previous measures with strong reliability and validity for teacher descriptions of individual students' bullying experiences and behaviors were inconsistent. Thus, it was necessary to use a modified questionnaire, although it was based on other strong questionnaires that are generally accepted as reliable and valid for measuring bullying. Modifications in measures make previous estimates of their internal consistency, reliability, and/or validity less useful.

### **Significance of This Study**

Students, teachers, parents, and the community at large are challenged to gain better understanding of the dynamics of bullying to find effective methods both for prevention and intervention (Jacobsen & Bauman, 2007; Smith et al., 2003). School counselors often are the frontline in working with the students, teachers, principals, and parents of youth who are affected, whether as perpetrators, victims, or witnesses of this form of aggression.

Prevention and intervention programs can be designed to address the specific risks for youths with behavioral disorders, such as those with ODD, whose irritability, social skills deficits, impulsivity, and reactive aggression may increase their risk of being bully-victims. According to Cho, Hendrickson, and Mock (2009), empirically supported anti-bullying programs for students with behavior disorders are limited, but greatly needed. These programs cannot be developed without a clear understanding of bullying motivations and behaviors among these students. Further, decision-makers at the state and local levels need information so they can implement policies and practices for bullying that are sensitive to issues among students with behavioral disorders (Maag & Katsiyannis, 2012). Finally, information of this type may provide better counseling and support for teachers and parents when they are dealing with a youth with these comorbidities (Brown, Aalsma, & Ott, 2012; Harcourt, Jasperse, & Greene, 2014; Lewis, Petch, Wilson, Fox, & Craig, 2014; Maring & Koblinsky, 2013).

In terms of data collection, I evaluated teachers' reports for bullying behaviors/experience for *individual* students, as opposed to previous research where teachers generally were asked to describe bullying among groups of students or overall school climate/norms for bullying (Bradshaw, Sawyer, & O'Brennan, 2007; Craig & Peplar, 1998; Pagliocca et al., 2007). Although not a key focus, this study did provide indirect information on the consistency between students' bullying behaviors described in formal investigation reports and teachers' perceptions of those students.

## Summary

Bullying and behavioral disorders are two areas that impact youth, families, and school environments. Students, teachers, parents, and the community at large are challenged to gain better understanding of the dynamics of bullying to find effective methods both for prevention and intervention. My objective in this quantitative, exploratory survey research was to explore whether a sample of male grade school students who had been identified through formal investigations with different bullying behaviors and experiences (bullies, victims, bully-victims) differed significantly in ODD and other behavioral disorders (ADHD, CD) and in patterns of aggression (reactive, proactive), as reported by teachers. I generally predicted that students described as bully-victims would be characterized significantly more frequently by teachers with symptoms of ODD and reactive patterns of aggressive behaviors, as compared with students described as bullies or victims. Kruskal Wallis tests were used to evaluate the specific hypotheses for this study. Only significant differences were observed between victims and both bully groups, but not between the two bully groups (bullies and bully-victims). The greater the understanding of the challenges some youths face with skills such as social information processing and impulse control, the better stakeholders can plan protocols for identifying youth who are at higher risk for bullying (particularly bully-victim patterns) and can apply this information to prevention and intervention activities.

Chapter 2 includes an in-depth review of the literature on ODD and other behavioral disorders and their relationship to bullying patterns among school-age children. In Chapter 3, I describe the methodology I used to explore the research

questions and hypotheses, and in Chapters 4 and 5 I report and discuss the results of the study.

## Chapter 2: Literature Review

### **Introduction**

Bullying has been prevalent among students over the decades, but in recent years there is heightened awareness and national attention to the subject (Arseneault et al. 2006; Espelage & Holt, 2013; Petrosini et al., 2010). According to Holt and Espelage (2006), “approximately 30% of American students are involved in bullying and often suffer adverse consequences as a result” (p. 984). Bullying can be a single event or repeated over time, but it is characterized principally by an imbalance of power over another person with the intention to inflict injury or discomfort by verbal, physical, and/or social/relational means (Borg, 1998). Students, teachers, parents, and the community at large are challenged to gain better understanding of the dynamics of bullying to find effective methods both for prevention and intervention. For example, what may be some individual and situational risk factors that may influence who bullies and who becomes the target of bullying? How may specific behavioral disorders, such as ODD, interface with bullying (Coolidge, DenBoer, & Segal, 2004)?

The purpose of this quantitative, exploratory study was to examine differences between youths who are identified as exhibiting different patterns of bullying behaviors/experiences from teachers’ descriptions of symptoms of behavioral disorders and aggressive patterns. Without understanding the unique risk factors for students who are identified as bully-victims, it is difficult for schools, mental health personnel (i.e., school counselors, student assistant counselors, child psychologists) and parents to offer adequate support and intervention for these students. Furthermore, with proper diagnosis

and proper interventions, students may learn alternative methods for emotional regulation and more effective social skills when dealing with peers. Results from this study will help raise awareness for staff and parents in dealing with these forms of aggression by strengthening anti-bullying procedures.

### **Literature Search Strategy**

In this literature review, I discuss theories and research on bullying and ODD. Strategies for this review included searching academic databases available through Walden University's online library. The primary databases that I used were Thoreau and Academic Search Complete. Search terms included: *bullying*, *bullying and ODD*, and *bullying and bully/victim*. I limited the searches to scholarly publications, with no limit on publication year. Results from the initial searches allowed me to refine the subsequent searches by adding search terms such as *children*, *victims*, *students*, *middle school student*, and *aggressive behavior*. In addition, information from articles' references lists provided leads to other relevant resources. Search results that were not available with full text were acquired by the Walden University library to support this research. Further, searches using Google Scholar and similar search engines allowed identification of other resources (e.g., Olweus' website on his work on bullying). I believe that these search processes have resulted in an exhaustive review of the relevant professional literature on bullying and ODD.

## Theoretical Foundation

### Aggression Theories

Theories on human aggression continue to evolve. The challenge for explaining and predicting aggressive behaviors has been to integrate diverse approaches which have focused on specific dimensions of aggression (such as instinctive, physiological arousal, situational, learning, cultural, cognitive/information processing, personality/individual differences; Bushman & Huesmann, 2010). Dodge (1980), Crick and Dodge (1996), and Huesmann (1988) have proposed well-supported social-cognitive information processing developmental models of aggression. In keeping with social learning theory (Barkl, 2001), Huesmann (1988) postulated that an individual's characteristic level of aggressiveness is established in childhood, where children learn scripts to represent and respond to situations. According to this kind of information processing approach, the individual's response to situations are mediated by cognitive structures and networks developed early in life by early social experiences. More recently, Bushman and Huesmann (2010) described the process as follows:

Aversive events automatically arouse negative emotions, which makes aggressive scripts more accessible. If these aggressive scripts pass through a filter of normative and moral beliefs and seem to lead to a desirable goal, people use the script to guide their behavior. Individual differences in aggressiveness are therefore linked to individual differences in the four kinds of social cognitions involved in social problem solving—one's repertoire of scripts, world schemas,

normative beliefs, and emotional reactivity. Once these cognitions are crystallized, they produce stable aggressive tendencies over the life span. (p. 840)

Dewall, Anderson, and Bushman (2011) also stressed that social knowledge structures develop over time by way of learning processes, such as learning how to judge, interpret, perceive, and respond to events in both the physical and social environment. Research has confirmed that children and adults with hostility attribution bias (i.e., a greater belief that hostility is a normative way of being in the world) also appraise others' behaviors and intentions as provocative and hostile, thus increasing the risk of aggressive responses to others (Dodge et al., 2014). Researchers have used the social-cognitive information processing (SCIP) model of aggression to explain important developmental milestones and changes in bullying behaviors (Boxer, Goldstein, Musher-Eizenman, Dubow, & Heretick, 2005).

Crick and Dodge (1996) described two forms of aggression: reactive (hostile) and proactive (instrumental). They proposed that *proactive*-aggressive children use aggression to obtain specific social goals, such as obtaining a toy rather than becoming friends. In addition, given an ambiguous situation, proactive-aggressive children were more likely to attribute hostile intent to another child than did nonaggressive peers. Crick and Dodge (1996) also predicted that *reactive*-aggressive children demonstrate even more hostile attribution bias, and even more likelihood of attributing hostility when none was intended, than proactive-aggressive children. As Crick and Dodge (1996) noted,

Reactive aggression may be maintained by a negative cycle in which: (1) a reactive-aggressive child attributes hostile intent to peers (whether it is intended



by the peers or not) and retaliates aggressively, (2) the child's peers then respond with increased hostility toward the child, and (3) the child interprets the peers' hostility as confirmation of the earlier interpretation (i.e., that peers are mean). In this way, the biased social information processing of reactive-aggressive children may become a self-fulfilling prophecy (i.e., with time, peers may actually become more hostile towards reactive-aggressive children). (p. 999)

In addition, arousal and emotional control are key components of any integrated model of aggression. As Bushman and Huesmann (2010) noted, "People don't have to learn how to behave aggressively; it comes naturally. What people have to learn is how to inhibit their aggressive tendencies" (p. 843). They discussed the role of executive functioning that, in addition to planning, organizing, reasoning, goal direction, also controls emotions and inhibits behavioral tendencies. Thus, both situational factors (e.g., use of alcohol) and individual differences in response inhibition and self-control are considered important in understanding the complexities of aggressive behavior.

### **Oppositional Defiant Disorder (ODD)**

There is notable overlap between contemporary complex biopsychosocial-emotional models of aggression and those for behavioral disorders of CD and ODD (Carr, 2013, pp. 372-375; Dodge & Pettit, 2003; Steiner et al., 2007). However, more work is needed to differentiate comorbid patterns of behavioral disorders with bullying patterns. In fact, Carr (2013) noted

Since the distinction between oppositional defiant disorder and conduct disorder is a relatively recent development, most theories in this area have been developed

with specific references to conduct disorder, but have obvious implications for oppositional defiant disorder, which is probably a developmental precursor of conduct disorder in many cases. (p. 372)

Environmental approaches proposed a developmental sequence for ODD and CD which begins with ineffectual parenting or family instability in the home, and then continues with peers and authority figures beyond the family, such as in the school setting (Greene et al., 2002; Patterson et al., 1992). Relatedly, others have applied Bowlby's attachment theory to explain relational deficits (Carr, 2013). Other theoretical discussions focus on genetic, physiological, neurological processes that may influence ODD and CD: for example, proposed candidates are autonomic arousal, neurotransmitters, and hormones, which may dysregulate intensity of reactivity and motivational responses to situational cues, affect learning from experience, and interfere with executive functioning as key factors in behavioral disorders (Barkley, 1997; Beauchaine, 2001; Carr, 2013; Sergeant et al., 2002). Social learning and social-cognitive proposals for explaining ODD and CD mirror those discussed above for aggression (Dodge & Pettit, 2003). What is missing is more precise clarification of how ODD and CD may interface with different patterns of bullying behaviors. This question is examined further in this literature review.

## **Bullying**

### **Definitions of Bullying**

Bullying is defined in several ways. First, bullying may be understood as a form of human aggression defined generally as “any behavior directed toward another individual that is carried out with the *proximate* (immediate) intent to cause harm. In addition, the perpetrator must believe that the behavior will harm the target, and that the target is motivated to avoid the behavior” (Anderson & Bushman, 2002, p. 28). By this definition, accidental harm would not count as aggression, and the intent alone is sufficient to define aggression, even if actual harm is not achieved. More specifically, Olweus offered a commonly accepted definition of bullying behavior among children: negative treatment towards a perceived weaker child, without provocation, by one or more children in a persistent nature (Rigby, 1993). Archer and Coyne (2005) expanded the conception of bullying beyond behaviors that are directly and overtly aggressive to include nonverbal and social/relational forms of bullying.

### **Incidence Rates**

Overall, estimates of the frequency of bullying for middle school-age students range from 9% to as high as 38%. Based on statistics provided by the Office of Justice Programs (2011), 13% of 6<sup>th</sup>-10<sup>th</sup> grade students in the United States demonstrated bully behavior. Slee (1994) conducted research in Australia with 4,229 students from coeducational primary and secondary schools and found that one in seven students (14.2%) reported being bullied by their peers, either physically or psychologically, at least once each week. In Bradshaw, O’Brennan, and Sawyer’s (2008) study of 16,012

middle school students in Maryland, 37.6% were frequently involved in bullying. Menesini et al. (1997; as reported by Dake, Price, & Telljohann, 2003) found that between 9% and 11% of U.S. middle school students had been bullied “sometimes” or more frequently.

### **Developmental Patterns and Bullying**

The frequency and types of bullying incidents follow developmental patterns, related particularly to changes in social-cognitive processes and the importance and nature of peer social relationships (Boxer et al., 2005). Bullying that is more direct (physical, verbal) is prevalent in the early years of primary school and typically peaks again during secondary school, grades eight and nine (Slee, 1994). However, bullying may continue into adolescence and adulthood, often shifting from physical aggression (e.g., hitting) to verbal aggression (e.g., teasing, demeaning) and property violations (e.g., stealing, breaking). Furthermore, it may be more indirect and relational, focused on embarrassing the target, attacking his or her social and/or professional reputation, and disrupting social relationships (such as through gossip and shunning; Archer & Coyne, 2005; Boxer et al., 2005; Crick & Bigbee, 1998). In a study conducted by Pellegrini, Bartini, and Brooks (1999) with 154 participants (14% of the sample had been identified as bullies), bullying was positively related to the child’s emotionality (the quality of being emotionally responsive).

In early childhood, relational aggression may take the form of a face-to-face threat in a dyadic relationship. This type of aggression exploits the significance of relationships, and, using social interactions, provides opportunities for social

manipulations within groups (Crick & Grotpeter, 1995). More disguised aggression, seen later in childhood, often follows earlier patterns of overt forms of relational aggression (Archer & Coyne, 2005). Unlike direct aggressors who may end up rejected by peers, bullies who are subtler in the provocations can continue to go unnoticed and perhaps even improve their social standing. Although common amongst both sexes, indirectly aggressive girls are less likely to be lonely and rank higher socially than those girls who are not as aggressive (Archer & Coyne, 2005). However, there is also the risk that the relational aggressor may be rejected by the same peer group and lose social standing among the group they are attempting to manipulate if their social skills or social standing are not strong enough to maintain control. This in fact can lead to a further decrease in their social standing. To reinitiate Archer and Coyne (2005), and Crick and Grotpeter (1995) introduced the concept of relational aggression and defined it as behaviors that harm others by damaging relationships by “behind-the-back” measures. Relational aggression is based on the importance of the relationship and manipulating one’s social life particularly children. Prinstein, Boergers, and Venberg’s (2001) data demonstrated that relational aggression explained a significant portion of variance associated with externalizing symptoms, after they controlled for overt aggression. This finding was even more pronounced when they examined the unique contribution of relational forms of victimization after controlling for overt victimization.

### **Risk Factors**

Many factors are related to aggressive behavior, including bullying: “biological predispositions (e.g., impulsivity, emotional lability); exposure to domestic, community,

or media violence; socioeconomic disadvantage; psychological disorder; harsh parenting practices; and peer relationship difficulties, among others” (Boxer et al., 2005, p. 384).

**Social-cognitive processes.** Social-cognitive factors are important predictors of aggression, in general, and in bullying. These components may include hypervigilance, the hostility bias (making attributions about others’ behaviors which interpret them as hostile or provocative even when not the real situation), positive attitudes towards and acceptance of aggression, and aggressive behavioral scripts that are triggered across a greater number of situations (Anderson & Bushman, 2002; Boxer et al., 2005; Huesmann & Guerra, 1997).

**Situational factors.** Situations themselves also may promote bullying and aggression, from cultural norms that support such attitudes and behaviors to actual situational provocation and dangers (Anderson & Bushman, 2002; Boxer et al., 2005; Bushman & Huesmann, 2010; Huesmann & Guerra, 1997). In some cases, the person and situational factors interact. For example, the impulsive, emotional child may provoke bullying and rejection by peers, and this may be supported by others who accept, or at least do not speak up against, such behavior (Tolan, Guerra, & Kendall, 1995). In other situations, the dominance behavior of the bully may be valued, and the bully may gain social rewards, such as popularity, from this kind of aggressive behavior (Garandau, Wilson, & Rodkin, 2010).

**Self-esteem.** Bullying is described as aggression aimed at a weaker peer who may be more defenseless than the bully him/herself (Salmivalli, Karhunen, & Lagerspetz, 1996). Relatedly, bullying behaviors often are found to be responses from those children

who have a need for control, which can lead to the increasing likelihood of externalizing their anger (Terranova, 2009). It once was thought that bullies have this need to dominate because of their own low self-esteem. However, O'Moore and Kirkham (2001) studied pre- and post-primary school students (8-18 years of age) and found that, when compared with students who never had bullied or been bullied, bullies, victims, and bully-victims all had significantly lower global self-esteem. However, specific self-esteem regarding one's own physical attractiveness, attributes, and popularity was as high among pure bullies as among peers who never bullied or had been victims of bullying. A developmental phenomenon emerged for pure bullies: while pre-primary school bullies were higher on anxiety than peers who had not bullied or be victimized, post-primary students who bullied the most frequently were the least anxious. By contrast, bully-victims of all ages demonstrated the lowest global self-esteem of these bully-behavior groups. O'Moore and Kirkham's (2001) finding of reduced anxiety among older pure bullies, but not among older bully-victims, would seem to support proposals herein that pure bullies share more characteristics related to arousal patterns with CD and instrumental/proactive aggression, while bully-victims share more characteristic arousal patterns with ODD and reactive/impulsive aggression.

**Emotional well-being.** Fekkes, Pijpers, Fredriks, Vogels, and Verloove-Vanhorick (2005) studied children from the beginning to later in the school year. They found that children who are depressed or anxious at the beginning of the school year are at higher risk of becoming new bully-victims later that year. Anxious or depressed behavior could make a child appear more vulnerable to aggressive peers and thereby

make the child an easy target for victimization. Fekkes et al.'s (2005) also reported a strong association between being bullied and a wide range of psychosomatic symptoms and depression. Bullied children more often reported health symptoms like headaches, abdominal pain, bedwetting, sleep problems, and indications for depression than children who were not involved in bullying behavior. In fact, they found that students bullied since the beginning of the year accounted for 19.3% of all participants showing signs of anxiety.

### **Developmental Patterns and Bullying**

In general, the incidence of direct physical aggression tends to decline among both boys and girls in late childhood and early adolescence (Brame, Nagin, & Tremblay, 2001; Broidy et al., 2003; DI Giunta et al., 2010). However, there is ongoing debate and inconsistency in research findings as to whether direct forms of aggression decrease while indirect forms of aggression increase with age; perhaps indirect forms of aggression become more socially acceptable and safer alternatives by middle adolescence. Card, Stucky, Sawalani, and Little (2008) performed a meta-analysis of previous research reports and found that there is a strong correlation between the use of direct and indirect forms of aggression ( $r = .76$ ; Juvonen & Graham, 2013, p. 162). Thus, those children who demonstrate direct aggression also are more likely to be indirect aggressors, and vice versa.

In a longitudinal study using multiple methods and informants' perspectives, Pellegrini et al. (2010) found that more overt bullying and aggression increased to middle school and then decreased. In addition, they noted that bullying mediated the students'



dominance status, perhaps explaining the increase in bullying during the transition to new social groups in middle school. Peer affiliation buffered risk of victimization of bullying: during the initial transition to middle school with disruption of peer groups, victimization increased, but then decreased as peer affiliations were developed. However, Pellegrini and Long's (2010) study did not identify students who demonstrated bully-victim patterns, leaving a gap in understanding their developmental sequelae.

### **Social Consequences of Bullying**

How is bullying related to social outcomes such as rejection or popularity? While older research found that aggression often was met with peer rejection (Coie, Dodge, & Copottelli, 1982; Crick & Grotpeter, 1995), later research found peers describing some aggressive youths as popular (LaFontana & Cillessen, 2002; Rodkin, Farmer, Pearl, & Van Acker, 2000). Rose, Swenson, and Waller (2004) delineated a number of problems with these studies on relationships between aggression and social consequences: small sample sizes, limited age/developmental ranges, cross-sectional designs which did not look at temporal orderings of aggression and popularity across time, failure to look at gender differences, and focus on direct forms of physical and verbal aggression.

In response, Rose et al. (2004) conducted two studies to address these limitations. In study 1, they sampled 144 third grade (76 girls), 140 fifth grade (76 girls), 166 seventh grade (86 girls), and 157 ninth grade (84 girls) students. In study 2, wave 1 included 269 third grade (137 girls), 285 fifth grade (135 girls), 211 seventh grade (107 girls), and 276 ninth grade (140 girls) students. There was some attrition for wave 2, with the resulting sample of 261 third-grade (134 girls), 275 fifth-grade (131 girls), 201 seventh-grade (102

girls), and 260 ninth-grade (132 girls) students. Perceived popularity was evaluated through peer nominations (following Parkhurst & Hopmeyer's, 1998, methodology). As in previous work by Crick (1997), students in these studies also were asked to nominate peers who demonstrated overt aggression (i.e., those who (a) hit, kick, punch others; (b) say mean things to other to insult them or put them down; (c) call others mean names; (d) push and shove others around; (e) tell others that they will beat them up unless they do what they want) and those who demonstrate relational aggression (i.e., those who (a) try to make another classmate not like others by spreading rumors about them or talking behind their backs; (b) get even by keeping a person from being in their group of friends; (c) ignore others or stop talking to them; (d) tell their friends they will stop liking them unless the friends do what they say; (e) keep certain people from being in their group when it is time to do an activity).

Consistent with other results described earlier, correlations between ratings on overt and relational aggression also were found to be statistically significant in study 1 ( $r = .65$ ), study 2 wave 1 ( $r = .71$ ) and study 2 wave 2 ( $r = .69$ ;  $p < .01$  for each correlation). Relationships between perceived popularity and form of aggression differed as a function of grade. In addition, when controlling for overt aggression, it was relational aggression that accounted for relationships between aggression and popularity. Further, results for seventh and ninth grade students generally supported past research findings of positive correlations between relational aggression with perceived popularity among older, but not younger, youths. Study 2 examined changes over time (wave 1, wave 2) in popularity, given initial descriptions of overt and relational aggression of peers in wave 1. Among

older students (seventh and ninth graders), relational aggression was a statistically significant positive predictor of perceived popularity over time among girls. These relationships were not observed for boys in these grades. Results for all fifth, seventh, and ninth grade students showed that perceived popularity at time 1 (wave 1) was a statistically significant positive predictor of relational aggression at time 2 (wave 2). Thus, there appear to be developmental changes in the consequences of aggression, especially relational aggression and especially for girls: as girls age, relational aggression enhances attractiveness and social standing among their peers. Further, there is a reciprocal relationship between popularity and incidence of relational aggression over time: more popular students are more likely to increase use of relational aggression.

### **Gender Differences in Bullying**

A long history of research findings indicates that boys are more physically aggressive, such as through kicking, hitting, or shoving, than girls (Archer, 2004; Card et al, 2008; Dodge, Coie, & Lynam, 2006). For example, Gropper and Froschel (2000) found in their study that boys initiated more than three times more direct forms of teasing and bullying than did girls. In addition, Pellegrini et al. (2010) found that younger boys were most frequently the targets of aggression initiated by other boys, and boys least frequently aimed their aggression at girls. In fact, girls were most frequently targeted by other girls.

Findings of gender differences in other forms of aggression, such as verbal and relational/social aggression, are more equivocal (Juvonen & Graham, 2013). While girls use more relational aggression than physical aggression, they may not differ from boys in

the use of relational aggression (Archer & Coyne, 2005). However, Wang, Iannotti, and Nansel (2009) found higher rates of relational bullying among adolescent girls than among their male peers. Boys too use relational forms of aggression, such as social exclusion and spreading rumors to harm another's social relationships and reputation (Archer & Coyne, 2005; Card et al., 2008; Underwood & Rosen, 2011). For example, Wang et al. (2009) found that boys in their sample from grades 6 to 10 were more likely than girls to be cyber bullies, which is a more indirect and more relational aggressive pattern, while girls were more likely to be victims of cyber bullying.

Gender differences in social rewards for aggression, that is, popularity, are unclear. Inconsistent results have been reported: overt aggression correlated with increased popularity among boys relative to girls (Parkhurst & Hopmeyer, 1998), increased popularity among girls relative to boys (Lease, Kennedy, & Axelrod, 2002), or similar outcomes across gender (LaFontana & Cillessen, 2002). As noted above, Rose et al. (2004) found that as girls age, relational aggression enhances attractiveness and social standing among their peers.

However, gender differences in negative outcomes of relational aggression have been observed: social aggression is more harmful to girls than to boys (Galen & Underwood, 1997). Olafsen and Viemeroe (2000) found that girls who were victims of indirect bullying were more at risk for "self-destructive" strategies to cope with the abuse, strategies that may even include suicide; that is, girls who were victims of relational aggression were more likely than boys to turn aggression against themselves than against others. According to Ostrov and Godleski (2010), during middle childhood,

girls display more relational aggression than boys, where boys demonstrate more physical aggression than girls.

### **Reactive Versus Instrumental/Proactive Aggression and Bullying**

Aggression can be *reactive*, often linked with an impulsive, immediate response to a real or perceived provocation, or *instrumental/proactive*, which is more planned and goal-oriented (Anderson & Bushman, 2002). Bullying may take both forms as well. While most studies will usually discuss bullying that resembles reactive aggression because it can present immediate physical threat, it is important to remember that gossip and other forms of bullying can be very strategic and planned with definite goals, such as causing a peer to be rejected from a social group. Crick and Bigbee (1998) proposed that those who are aggressive may find themselves looking for a sense of reward, which can be gained, in the mind of the aggressor, by provoking a victim to react in a certain way.

Reactive bullies tend to respond to perceived or real threats in a manner consistent with hot-tempered outbursts, which they demonstrate with peers but also with authority figures, such as teachers (Dake et al., 2003). Ellis, Weis, and Lochman (2009) found among a sample of boys that reactive bullies are much more likely to interpret others' behaviors as hostile (i.e., high hostile attributional bias), and that this cognitive distortion and the energy it arouses then interferes with planning abilities and response inhibition. They suggest that this high hostility bias is a key difference between the reactive aggressors and those who are more instrumental/proactive bullies. As illustrated by research by Vitaro, Gendreau, Tremblay, and Oligny (1998), proactive aggression predicted delinquency only when reactive aggression was low, thus demonstrating that

the relationship between proactive aggression and delinquency was relatively high. This longitudinal study started with 1037 kindergarten boys from Quebec, Canada and ended with 726 boys. Reactive aggression was measured using the same three items used by Dodge and Coie (1987) which had been included in the Social Behavior Questionnaire completed by teachers. Delinquency was identified using a self-report delinquency questionnaire during adolescents.

### **Bully, Victim, Bully-Victim**

While complex, three basic roles characterize the dynamics of bullying: those who bully, those who are bullied, and those who may vacillate between being the bully and being the victim. Those in these separate groups tend to have different characteristics and different consequences from their different roles and experiences.

#### **The Bully**

The bully is the individual who engages in any forms of interpersonal aggression that were described above. A bully is an individual who inflicts intentional injury or discomfort upon another person or persons over time. These actions can be either direct or indirect. Bullying is a pattern of behavior that is repeated over time with an imbalance of power being demonstrated. Some examples of bullying can be hitting, kicking, shoving, teasing, spreading rumors, and isolation. Bullying can be both observable, such as when expressed by physical or verbal means, or more covert, such as where other behaviors are hidden from view in the form of relational aggression (Dulmus, Sower, & Theriot, 2006). Between 5% and 9% of youth may be classified as chronic bullies (Bradshaw et al., 2008; Pepler, Jiang, Craig, & Connolly, 2008).

Bullies come from homes where parents: (a) prefer physical means of discipline (authoritarian); (b) are sometimes hostile and rejecting; (c) are described as both hostile and permissive (inconsistent parenting/little supervision); (d) have poor problem-solving skills; and (e) teach their children to strike back at the least provocation (Pepler et al., 2008). Children are reinforced for their actions through both positive reinforcement (goal attainment) and negative reinforcement (removal of threat) paradigms. Bullying frequently is described as all about control. It is thought that when in control, bullies feel more secure and less anxious (Batsche & Knoff, 1994; Floyd, 1985; Olweus, 1991a). Olweus (1993) has observed that bullies may have little anxiety, little insecurity, and a strong desire to dominate and to be in control. Children who bully may derive entertainment from it, may feel little remorse and empathy for their victims, and may be aggressive toward school staff and teachers, who, in turn, may fear them.

In general, bullies can be described as having aggressive behavior profiles combined with physical strength (Olweus, 1991b). Aggressive boys are confident of achieving success through their aggression, are unaffected by the possibility of inflicting pain and suffering, and process information about victims in a rigid and automatic fashion (Perry, Kusel, & Perry, 1988). When asked how they feel when they bullied other children, the most common responses were that they felt happy or that they felt mad or angry (Boulton & Underwood, 1992). The child who bullies believes that fighting may make them popular, that fighting is an effective way to solve a problem, and that victims deserve what happens to them (Bentley & Li, 1995). Rigby and Slee (1993) suggest that a bully's strong self-concept is maintained by the sense of power he gains through

dominating other individuals weaker than himself. Children who bully others evidence emotional regulation difficulties including displays of inappropriate affect, a limited range of emotional expression, and deficits in empathy and emotional connections to others (Hussein, 2013). In a study by Swart and Bredekamp (2009), students recognized that a social hierarchy at their school created and supported the formation of cliques and the culture of bullying.

One of the rewards of bullying may be social status, popularity, and power (Thornberg, 2015). For some youths, peer harassment becomes a tool in the process of social positioning in school. Whereas successful bullies gain power and status among the peers, long-term victims become positioned at the bottom of the social hierarchy (Besag, 2006; Garpelin, 2004). According to Bullying Prevention Program Coordinating Committee Notebook (2010), which coordinates evidence-based bullying prevention programs to school districts, children who bully tend to have positive attitudes toward violence, are impulsive and quick tempered, show little empathy toward a victim, and may be physically stronger than peers (boys).

### **The Pure Victim**

A “pure” victim would be one whose only experiences are as the target of bullying. That is, he or she does not engage in bullying. Who becomes a victim? In the strictest sense, anyone can become a victim of bullying, given the right situation. For example, the more aggressive others are in the environment, the greater the likelihood that someone can become a victim. Other predictors can be any kind of difference (racial, cultural, physical, etc.) that sets the person apart or makes him or her a perceived member



of a less-valued “outgroup” (Gini, 2006). Victims tend to be physically smaller and perceived as weaker. Along with physical size, Lowenstein (1978) found that victims tended also to be less attractive and displayed more ODD behavior and/or mannerisms than those not victimized by bullies. In addition, those with physical disabilities also were among those found to be more likely a victim. Similarly, other features may also make some more likely to be targeted, such as shyness or poor self-concept (Egan & Perry, 1998). Finally, those who lack the ability or willingness to defend themselves become targets. This reticence or inability to resist, as well as showing fear, distress, and other hurtful effects, may reinforce the aggressors’ attacks against them (Hodges & Perry, 1999).

Victims may know their victimizers and what the aggressors intend to do (Archer & Coyne, 2005). This awareness can set up a chronic state of stress, waiting for the next attack. Silverman, La Greca, and Wasserstein (1995) found that among children in grades two through six, the most frequent and intense source of worry for these children was the fear of personal harm by other students. In addition, Silverman et al. (1995) found that students surveyed in their study found that 48.9% of students stated that worried about being picked on by other students in class. When Smith et al. (2004) asked for the reason behind the bullying, both new and continuing victims often placed the blame on themselves; they believed it was due to their appearance or in some cases, for just being different. More recently, cyberbullying has the potential to cause a large amount of damage to one’s image because of the number of people who may be aware of what happened and why, and the rumors, personal attacks, or other disparaging or

embarrassing content may spread very quickly to initial witnesses, who then pass it on (Sticca & Perren, 2012). Schultze-Krumbholz et al. (2012) found that boys who scored higher on cyberbullying victimization had an increase in depressiveness.

According to Limber et al. (2010), passive victims tend to be cautious, sensitive, quiet, and withdrawn. They appear anxious, insecure, and typically have low self-esteem. These students present as physically weaker than peers (among boys). Lastly, these victims tend to have few friends, but do find it easier to associate with adults.

Sadly, victimization has consequences, which may include depression and suicidal ideation for the victim (Van der Wal, De Wit, & Hirasing, 2003), and trigger or justify ongoing victimization in the eyes of peers. For example, Kim-Cohen et al. (2005) found that pre-school children who are victims of bullying continue to be at risk for future victimization in they grow older. These young victims also show early signs of mental health issues.

Perhaps other factors that put the victim at risk for ongoing victimization are situational. For example, across time, avoiding harassers and escaping their victim role may be difficult for children because they typically are assigned to specific schools and classrooms, remaining in the same peer groups (Kochenderfer-Ladd & Skinner, 2002). Further, once in the victim role, the victim may perceive himself or herself as a social failure, which further limits his or her opportunities for further social interactions and development of social skills, which may already be weak (e.g., friendliness, cooperativeness, and a sense of humor; Borg, 1998). Second, peers who are not the bullies also may begin to perceive the victim in a similar, negative light. The more

isolated the victim becomes, the less he or she has the confidence of belonging within the peer group. Unfortunately, this reduces the protection that group affiliation can afford those who are at risk of being victimized (Egan & Perry, 1998). Children with histories of peer victimization may have a diminished sense of control over the situation and express an attitude of hopelessness and resignation (Vernberg et al., 1999). Repeated exposure to bullying not only results in chronic anxiety but may in turn result in psychosomatic symptoms and psycho-emotional damage, including social anxiety (Craig, 1998; Troy & Sroufe, 1987). According to the Olweus Bullying Prevention Group (2010), victims are cautious, sensitive, quiet, and withdrawn, as well as anxious, insecure, and demonstrating low self-esteem. Victims who are bullied chronically are more disliked, have fewer friends, and are shyer than those who are not bullied chronically (Arseneault et al., 2010).

Children who are victims of bullying will seek others who are also depressed, fearful, and withdrawn (Hodges & Perry, 1999). Adjustment problems, such as internalizing difficulties, depression, submissive behavior, and self-restraint problems, are indicators of a significant developmental risk for these youths (Arsenault, 2006; Borg, 1998; Causey & Dubrow, 1992). These adjustment difficulties also are likely to exacerbate the victimized children's problems within their peer groups. Potentially, this could lead to a reduction in the child's attractiveness as an enjoyable playmate. Other potential consequences of victimization include delinquency, failure in school, adolescent pregnancy, and various mental health difficulties (Boulton & Underwood, 1992; Parker & Asher, 1987). Indeed, Borg (1998) found that 8% of children noted that bullying had affected their lives to the point that they, at least once, attempted suicide, ran away from

their home, refused to go to school, or had been chronically ill. Results from a longitudinal study by Lereya, Copeland, Zammit, and Wolke (2015) indicated that victims (bully/victims or pure victims) have increased risk for a range of mental health problems. Victims struggle with friendships and are more socially isolated and lonely. This may hinder their ability to form strong prosocial bonds with other children and limit their opportunities for developing social skills or receiving support. The alienation from their peers may increase the likelihood of internalizing problems.

Hawker and Bolton (2000) found that depression was the symptom pattern most strongly related to victimization. Depression often accompanies low self-regard, which may further contribute to one's victimization because the individual with low self-regard is more likely to exhibit self-deprecating behavior, sadness, fear, and social withdrawal, cues that bullies can and will interpret as an invitation for aggression (Egan & Perry, 1998). Again, victimization is not only direct. Indirect aggression takes a major role on victims as well. Being a victim of indirect aggression in middle childhood is associated with higher levels of depression, peer rejection, loneliness, and enhanced anxieties (Craig, 1998). The consequences of childhood victimization may remain into adulthood: Klomek et al. (2009) found that for a sample of 25 women, being bullied in childhood was a significant predictor of later suicide attempts, over and above symptoms of behavioral disorders and depression.

### **Bully-Victims**

A third category of students are commonly referred to as *bully-victims* or *provocative victims* or *aggressive victims* (Unnever, 2005). The term bully-victim will be

used in this discussion as it is more consistent with relevant research. This behavior pattern was first described by Olweus (1979) and is characterized by youths who exhibit both bullying and victimization. It appears that this group comprises a small percentage (8.2%) of victimized children (Arsenault, 2006; Olweus, 1979; Schwartz, Dodge, Petit, & Bates, 2007). According to Bradshaw et al. (2008), the bully/victim is involved in 3% of bullying incidents.

Bully-victims tend to be impulsive and demonstrate behaviors that are more aggressive, dominant, and in some cases, anti-social (Terranova, 2009). They also are described as restless, irritable, and perhaps even short tempered (Schwartz et al., 2007), behaviors that often are irritating and annoying to others, perhaps triggering victimization by bullies (Cassidy & Taylor, 2005). In fact, bully-victims often are the targets of verbal violence, such as through name-calling, teasing, and derogation of their ethnic backgrounds and/or skin color, and physical aggression, such as through increased frequency of theft or damage of property (Dulmus et al., 2006).

Like bullies, bully-victims misread social interactions, frequently misinterpreting others' intentions as negative in relation to their own cognitive hostility bias, which then accompanies arousal, anger, and increases the probability for aggressive retaliation (Camodeca et al, 2003; Huesmann & Guerra, 1997). In response, their aggressive reaction then increases the probability of an actual aggressive attack from another (Salmivalli et al., 1996).

Bully-victims have limited skill sets and deficit behavioral schema for alternative, prosocial responses in social situations (Huesmann & Guerra, 1997;

O'Brennan, Bradshaw, & Sawyer, 2008; Snokowski & Kopasz, 2005; Unnever, 2005).

When compared with traditional bullies and victims, bully-victims express less value for social relationships, are more avoidant in social situations, and experience more negative interactions with peers (O'Brennan et al., 2008). It is likely that there is a vicious cycle: the bully-victim's ineffectual social skills, difficulties with coping, distancing, and avoidance interact with the social rejection they experience from peers, thus reinforcing their social frustrations, aggressive retaliation, and negative social expectations (Camodeca & Goosens, 2005). In the face of this real or perceived rejection by peers, the bully-victim may episodically bully other students, further adding to the relative isolation and lack of support that this child experiences with peers (Salmivalli & Nieminen, 2002). However, their attempts to bully others through means such as through social/relational aggression backfire due to their own ineffectual social skills and low group affiliation (O'Brennan et al., 2008; Perry et al., 1988; Unnever, 2005). Olweus reported that some teachers and students believe that bully-victims deserve the rough treatment and harassment they receive from individual peers and, at certain times, from an entire class of students (Terranova, 2009).

Reciprocally, those youths who are bully-victims have a poor perception of their own school environment (Tobin et al., 2005) and demonstrate lower academic performance (Arsenault et al., 2006). Arsenault et al. (2006) observed behavioral adjustments (internalizing, externalizing, and prosocial behaviors) among groups of children victimized by bullies (pure victim and bully/victims) and found that bully/victims, when compared with pure victims, showed elevated internalized problems,

elevated externalized problems, academic difficulties, and elevated scores of unhappiness at school.

In addition to social variables, certain attitudes, beliefs, and other person variables had been present within the child, prior to the first act of bullying. It is quite possible that those students who arrive at risk to feel unsafe and disconnected within the school environment will be more likely to become a bully-victim (Bradshaw et al., 2008). When compared with bullies and victims, children within this bully-victim subgroup are reported to have the lowest self-esteem, lowest scores on problem-solving, but highest scores on psychological distress when (Cassidy & Taylor, 2005; Pollastri, Cardemil, & O'Donnell, 2009). It is these attributes, as well as the overall attitudes towards aggressive retaliation, that comprise and influence their behavior at school (Bradshaw et al., 2008).

Bully-victims have been described further as those who exhibit an over reactive or emotionally dysregulated pattern of behavior (Mynard & Joseph, 1997). Their aggressive behaviors are found to be less goal-driven and more reactive than those behaviors found in children who are solely bullies (Hodges & Perry, 1999). Bully-victims tend to be anxious and aggressive, highly emotional, hot tempered, hyperactive, impulsive, and likely to be at risk to be involved in bullying for prolonged periods of time (Mynard & Joseph, 1997; Samivalli & Nieminen, 2002). In addition to aggression, other examples of their reactivity can include breaking down and crying more easily than do their peers, which can contribute further to finding themselves on the losing end of a dispute. In addition to more externalizing problematic behaviors, such as aggression, bully-victims also report psychosomatic symptoms that are generally associated with internalizing

responses; in addition to anxiety, they are at risk for displaying a wide range of mental health problems, such as headache, stomach pain, and sadness (Lohre, 2012). Further, perceived peer support appears to be an important mediator or moderator of mental health: bully-victims have a greater likelihood of being recommended for further psychiatric evaluation than peers who perceive themselves as supported by peers (Holt & Espilage, 2006; Katiala-Heino, Rimpela, Rantanen & Rimpela, 2000).

Some have suggested that parenting and socialization may account for some of the deficits exhibited by bully-victims. Schwartz et al. (2007) proposed that victimization experiences early in life, coupled with the harsh treatment by adults, can lead to hyperactivity, anger, and subsequent victimization by peers. Unnever (2005) took a closer look at middle school aged students utilizing questionnaires and objective assessments and found that the bully-victims perceived their parents to be inconsistent in discipline and monitoring. Rigby (1994), on the other hand, studied high school aged students and found that bully-victims were more likely to have families that lacked positive communication. Others have noted that the parents' own attitudes towards retaliation have proven to be a good indicator and predictor of whose children will demonstrate aggressive behavior, respond negatively toward provocation, as well as endorse retaliation (Solomon, Bradshaw, Wright, & Cheng, 2008). Further, across all bully and victim subtypes, those with the least amount of maternal social support reported the highest rate of anxiety and depression. Thus, maternal social support may be a key factor in promoting healthy psychological functioning.



In sum, bully-victims experience adjustment difficulties across multiple domains (Tobin et al., 2005). Due to this, these children might require multifaceted interventions that focus on a multitude of skill sets that can include, but are not limited to, coping skills as well as social skills. Other topics to home in on would be anger management, affect regulation, and academic support (Tobin et al., 2005).

### **Oppositional Defiant Disorder (ODD)**

DBD or disruptive behavior disorder includes such diagnoses as attention deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), and conduct disorder (CD); of the DBD categories, ODD accounts for most of the mental health referrals for children and adolescents (Loeber, Burke, Lahey, Winters, & Zera, 2000). Approximately 75% of children and adolescents with mental health diagnoses are labeled with disruptive behavior disorder or DBD (Bradley & Mandell, 2005). Traditionally, ODD and DBD are grouped together with broader descriptors, such as aggressive, defiant, or externalizing behaviors. Verbiage across studies causes problems in distinguishing and interpreting ODD and other behavioral problems (Rey & Walter, 1999). In fact, Rowe, Maughan, Costello, and Angold (2005) note that many children are diagnosed with the more general diagnostic category, disruptive behavior disorder (DBD) Not Otherwise Specified, because of the frequent combination and overlap of various symptoms across diagnostic categories in the Diagnostic and Statistical Manual for Mental Health Disorders (DSM; American Psychiatric Association, 2013).

ODD frequently co-occurs with other psychiatric conditions that include attention deficit hyperactivity disorder (ADHD), conduct disorder (CD), and anxiety and

depressive disorders (Angold, Costello, & Erkanli, 1999). However, ODD is a unique disorder that can occur with or without comorbid diagnoses (e.g., ADHD) and can be differentiated from other behavioral disorders (Greene et al., 2002).

Oppositional behaviors can include argumentative, angry, hostile, and defiant behavior (American Psychiatric Association, 2013). As described in the DSM-V, “Symptoms include losing one’s temper, arguing with adults, refusing to comply with adult requests, blaming others for one’s own mistakes, being annoyed easily by others, being angry, spiteful, and vindictive” (American Psychiatric Association, 2013). Because most children exhibit oppositional behavior at one time or another, it would be inappropriate to label all with ODD (Angold & Costello, 1996). However, for mental health professionals, there are behaviors that, when combined, define the unique characteristics of children diagnosed with ODD. At least four of these eight behaviors must be present for a diagnosis of ODD. Furthermore, the behaviors must occur more frequently than observed normatively among children of the same chronological and developmental stage (Munkvold, Lundervold, Lie, & Manger, 2009). Of the eight possible behaviors for oppositional defiant disorder, the most common feature is “often touchy or easily annoyed by other,” while the least frequently observed symptom among those diagnosed with ODD is behavior that is spiteful or vindictive (Munkvold et al., 2009).

An important point is that what distinguishes those with ODD from “typical” childhood behavior patterns is the intensity, frequency, and duration of the characteristic behaviors (Loeber et al., 2000). Most clinicians agree that to justify a diagnosis of ODD,

a persistent and pervasive pattern must be present (McKinney & Renk, 2007). That is, for diagnosing ODD, the pattern of oppositional behavior must be observed for at least a six-month period, the impairment must significantly impact either social or academic functioning, and it is not better explained as due to a psychotic or mood disorder (Bradley & Mandell, 2005). Typically, on average, ODD begins to be observed by age six and most receive a formal diagnosis by adolescence (MacKenzie, 2007).

Children and adolescents with ODD demonstrate impulsivity and attention seeking behaviors. Moreover, they may exhibit poor social information processing which will result in aggressive interpersonal responses (Mattys, Cuperus, VanEngeland, 1999). Other risks factors for ODD include: difficult temperament; focusing on reward versus avoiding punishment; poor verbal communication; academic underachievement; aggression; and misunderstanding or missing social cues (Alvarez & Ollendick, 2003). For example, continual negative social interactions that happen secondary to poor problem-solving skills may not only result in aggressive responding, but then don't allow for experimentation with or development of more appropriate responses. Symptoms of ODD not only occur in interactions with adults but can be prevalent in peer interactions as well. Some examples can include, but are not limited to, destroying another's property and deliberately setting out to annoy the other individual. These, as well as other pervasive behaviors, occur frequently in household interactions between the child and parent(s) and between the child and siblings (Smorti, Menesini & Smith, 2003).

Most discussions of ODD favor biopsychosocial models to understand the symptomology and development of this disorder. For example, although the exact

elements are not understood, it generally is accepted that ODD is caused by brain dysfunctions, especially related to areas implicated in emotional control, inhibition, and problem solving, and by biochemical imbalances in neurotransmitters (Steiner et al., 2007).

In addition, family characteristics and environment are important factors. The way mothers and fathers parent their children and adolescents predict ODD (McKinney & Renk, 2007). Children whose parents demonstrate inconsistency in their parenting style, in conjunction with demonstrating poor problem-solving skills when dealing with conflict and possessing low frustration tolerance can be at risk for ODD (McKinney & Renk, 2007; Rey & Walter, 1999). For example, the parent would revert to blaming the child during conflict and not take ownership for his or her own behavior. Other research on parenting behaviors suggests a reciprocal frustration-resistance cycle where negative parental behavior might evoke opposition by the child which evokes further negative parental behavior (McKinney & Renk, 2007). Parents with a history of mood disorder, ODD, CD, ADHD, antisocial personality disorder, or substance abuse also have children who have a greater risk developing ODD (MacKenzie, 2007).

There is a direct correlation between a negative family environment, such as minimal cohesiveness, and behavioral problems in children (Alvarez & Ollendick, 2003). While some have found equal levels of psychopathology among fathers of children with ODD and CD, there also are indications that fathers with children diagnosed with CD demonstrate more antisocial personality characteristics than fathers whose children have ODD (McKinney & Renk, 2007). Any of these familial factors may interrupt the process

of the parents providing positive role models for appropriate responses across situations, including those that may involve conflict. The relevance of parenting techniques was supported in a review of the literature on treatment interventions for children diagnosed with ODD that found that significant improvement in a child's behavior at home and at school depends on both parental training and an enhancement of child problem solving skills (Behan & Carr, 2000). Such interventions can maintain positive behaviors one year following treatment (Bradley & Mandell, 2005).

ODD affects 20% of school-age children and occurs more often among male students (Steiner et al., 2007). This number presents additional challenges to teachers and school administrators. For example, while the frequency and severity of aggression typically decreases with age, it increases in children who develop behavioral problems (Alvarez & Ollendick, 2003). Children with ODD often show a high level of hostility towards peers (Frankel & Feinberg, 2002), and this kind of behavior predicts peer rejection (Biederman, Wilens, & Mick, 1997). In addition, when children with ODD are exposed to peers with behavioral problems, they are at further risk of developing increasingly severe behavior problems themselves (McKinney & Renk, 2007).

### **Methods for Investigating Bullying Behavior and ODD**

Common methods for quantitatively researching these variables include gathering *self-reports* from the children/students and/or *reports from other informants*, such as parents, peers, or teachers.

**Self-report.** A wide variety of reliable and valid self-report measures have been developed to evaluate bullying, victimization, perpetration, and bystander experiences

(Hamburger et al., 2011). Sample self-report measures employed with children and adolescents for ODD and other behavioral and emotional problems include the Youth Self Report (YSR; Oppositional Problems Scale; Achenbach & Rescorla, 2001; Ebesutani, Bernstein, Martinez, Chorpita, & Weisz, 2011), the Conners-Wells' Adolescent Self-Report Scale (CASS; Conners, 1997).

**Other informants.** A meta-analysis by Achenbach, McConaughy, and Howell (1987) of cross-informant concordance in evaluating child and adolescent behavioral and emotional problems generally found that reports by informants other than the child/adolescent are most useful to the degree that the informant shares similar roles and can observe the child in the same settings. Thus, one would expect that teachers would be reliable informants for behaviors observed within the school setting.

Measurements of ODD and other behavioral and emotional symptoms frequently employ the Achenbach System of Empirically Based Assessment (ASEBA, Achenbach & Rescorla, 2001), which not only includes the Youth Self-Report, but also the Child Behavior Checklist (for parents) and the Teacher's Report Form. Similarly, the Conners' Rating Scales (Conners, 1997) also include the Conners' Parent Rating Scale (CPRS-R) and the Conners' Teacher Rating Scale (CTRS-R) to describe children between 3 and 17 years of age.

Measures for teachers' awareness of bullying behaviors are created for specific studies and tend to focus only on one or two types of aggression, such as physical and indirect, and/or bully behavior, such as bullying, victimization, and, less frequently, bully-victim patterns. For example, Miller, Vaillancourt, and Boyle (2008) used

independent reports from Canadian teachers to describe physical and indirect aggression among 740 girls and boys, aged six to nine, across three points in time. Teachers rated each student on five items that measured behaviors related to indirect aggression (gets others to dislike him/her; becomes friends with another as revenge; says bad things behind the other's back; says to others: "let's not be friends with him/her"; tells the one's secret to a third person) and on three items describing physical aggression (gets into many fights; kicks, bites, hits other children; physically attacks people). The choices for each item were descriptions of the frequency of the behavior along a Likert scale (often/very true; sometimes/somewhat true; never/not true). These results offered support for the heterotypic continuity of aggression and underscored the usefulness of teacher reports in studies of childhood aggression. Results of the Miller et al. (2008) study using teacher descriptions to model students' aggression were consistent with those from a previous study using maternal reports.

### **ODD and Bullying Behavior: The Gap in the Literature**

This review of the literatures on bullying and ODD presents intriguing similarities that suggest further consideration. Interestingly, however, there is very limited systematic study of how ODD may interface with bullying behaviors, results are somewhat inconsistent, and some research designs are problematic.

Kumpulainen et al., (2001) studied a sample of Finnish children and found that oppositional/conduct disorder was twice as common among bully-victims as among victims or bullies. Unfortunately, they combined youth with ODD with those with CD. In fact, the CD may have been the more dominant factor. Kokkinos and Panayiotou (2004)

explored the relationship between ODD, CD, and self-reported self-esteem and bullying behaviors among adolescents in Cyprus. Results indicated that those students with DSM-V-based diagnoses of CD were more likely to describe themselves with low self-esteem and as bully-victims; those with diagnoses of ODD also indicated low self-esteem but self-described as victims of bullying. However, information on other groups (victims and bullies), as well as for other behavioral disorders, were not reported. Thus, the relationship of ODD to bullying appears to be a gap in the literature that warrants further research.

Without understanding the unique risk factors for students who are identified as bully-victims, it is difficult for schools, mental health personnel (i.e. school counselors, student assistant counselors, child psychologists), and parents to offer adequate support and intervention for these students. Furthermore, with proper diagnosis, it makes it much easier to address and demonstrate alternative methods for emotional regulation, and more effective social skills, when dealing with peers. Results of this study can help raise awareness for staff and parents in dealing with these forms of aggression by reinforcing anti-bullying procedures. Therefore, students, parents, and school staff will become better educated on the topic and recognize characteristics associated with specific groups who can disguise between various forms of bullying, aggression, and behavioral disorders.

### **Summary**

Bullying and behavioral disorders are two areas that impact our youth, families, and school environments. Students, teachers, parents, and the community at large are challenged to gain better understanding of the dynamics of bullying to find effective



methods both for prevention and intervention. A focus of this review has been to consider how specific behavioral disorders, oppositional defiant disorder (ODD), present risk factors for engaging in, but also being victimized by, bullying. The greater our understanding of the challenges some youths face with skills such as social information processing and impulse control, the better we can plan more effective protocols for identifying youth who are at higher risk for bullying (as bullies, victims, or bully-victims), as well as apply this information to prevention and intervention activities. Conceptually, those youths with ODD resemble in many ways youths who are described as bully-victims. Youth with ODD experience difficulties with impulsivity, irritability, problem-solving, social information processing, and social skills, as do bully-victims. This pattern is not consistent with patterns of pure bullies or those who only experience victimization. Further, ODD should be related to aggressive behavior that is more of the reactive/impulsive type, which is tied with level of arousal, rather than aggression that is more associated with instrumental and proactive motives and processes. However, children with ODD who are higher on characteristics that also are associated with CD (e.g., harmful intentions, spiteful, vindictiveness) may be more likely to be bullies, rather than bully-victims, and demonstrate both instrumental/proactive and reactive/impulsive aggression. In addition, aggression and bullying among children with ODD should be less situation specific (e.g., only at school or only at home) than would be such behaviors for children without ODD/BD, whose aggression may be more reactive to specific situational interactions with peers. In Chapter 3, I will detail the methods for the current study, which will explore the relationships between ODD and bullying.



## Chapter 3: Research Method

### **Introduction**

As I discussed in Chapter 2, there are intriguing similarities between youth who have demonstrated bully-victim patterns and characteristics of ODD. However, while prior researchers have looked at relationships of CD and ADHD to bullying, there is very limited systematic study of how ODD may interface with bullying behaviors. Where research has been done, results are somewhat inconsistent, and some research designs are problematic. For example, Kumpulainen et al. (2001) studied a sample of Finnish children and found that oppositional/conduct disorder was twice as common among bully-victims as among victims or bullies. Unfortunately, they combined youth with ODD with those with CD. In fact, the CD may have been the more dominant factor. Kokkinos and Panayiotou (2004) explored the relationship between ODD, CD, and self-reported self-esteem and bullying behaviors among adolescents in Cyprus. Results indicated that those students with DSM-4 (American Psychiatric Association, 2001) based diagnoses of CD were more likely to describe themselves as having low self-esteem and as bully-victims; those with diagnoses of ODD also indicated low self-esteem but self-described as victims of bullying. By contrast, Benedict and Frances (2012) reviewed results from the 2007 National Survey of Children's Health which collected parent reports of children's mental health among youth identified as bullies: those diagnosed with ODD had the highest likelihood of being described as bullies when compared with other diagnostic categories (depression, anxiety, ADHD, no diagnoses). However, information on other groups (victims and bullies), as well as for other

behavioral disorders, were not reported. Thus, the relationship of ODD to bullying appears to be a gap in the literature than warrants further research.

### **Research Design and Rationale**

The goal of this cross-sectional, quantitative, exploratory, causal comparative survey study was to explore between-group differences among youths with different bullying behaviors (i.e., bully, victim, bully-victim, neither) on childhood behavior disorders and aggressive patterns, as reported by teacher informants. Conceptually, I predicted that youths with ODD and/or ADHD who are described as primarily experiencing difficulties with impulsivity, irritability, problem-solving, social information processing, and social skills would be most like the descriptions of bully-victims, rather than those who only engage as bullies or only experience victimization. Further, I predicted that ODD and ADHD should be related to aggressive behavior that is more of the reactive/impulsive type, which is tied with level of arousal, rather than aggression that is more associated with instrumental/proactive motives and processes. However, children with characteristics that also are associated with CD (e.g., harmful intentions, spiteful, vindictiveness) may be more likely to be bullies, rather than bully-victims, and demonstrate instrumental/proactive aggression in addition to reactive/impulsive aggression. Children with symptoms of CD also should be highest on instrumental aggression.

## **Methodology**

### **Population**

The data were collected in two suburban residential communities with populations of about 47,000 and 56,000, respectively, in a location in the eastern United States. The predominant socioeconomic level is middle to upper-middle class, and the occupational levels range from skilled labor to executive and professional. Many residents commute to a major metropolitan center about 30 miles away.

### **Sampling and Sampling Procedures**

In keeping with the state's mandated Anti-Bullying Bill of Rights, which became effective September 1, 2011, the host schools have employed the following definition of problematic behaviors:

Harassment, intimidation or bullying means any gesture, any written, verbal or physical act, or any electronic communication, whether it be a single incident or a series of incidents, that is reasonably perceived as being motivated either by any actual or perceived characteristics, such as race, color, religion, ancestry, national origin, gender, sexual orientation, gender identity and expression or a mental, physical or sensory disability, or by any other distinguishing characteristics, that takes place on school property, at any school-sponsored function, on a school bus, or off school grounds that substantially disrupts or interferes with the orderly operation of the school or the rights of other students and that:

A reasonable person should know, under the circumstance, that the act(s) will have the effect of physically or emotionally harming a student or damaging the

student's property, or placing a student in reasonable fear of physical or emotional harm to his person or damage to his property; or has the effect of insulting or demeaning any student or groups of students in such a way as to cause substantial disruption in, or substantial interference with orderly operation of the school or creates a hostile education environment at school for the student or infringes on the rights of the student at school by interfering with a student's education or by severely or pervasively causing physical or emotional harm to the student" (XXX Anti-Bullying Bill of Rights, 2011).

The participants for the study consisted of teachers of students enrolled in grades 6–8 who were identified as involved in bullying incidents through mandated investigations. All teacher participants were volunteers. Teachers completed a survey package to describe their perceptions of specific students on key variables: behavioral disorder symptoms (ODD, CD, ADHD) and patterns of aggressive behaviors.

An a priori power analysis using G\*Power 3 software to calculate minimum sample size for a global MANOVA statistical analysis with medium effect size (Pillai V = .25), alpha equal to .05, and power equal to .80 for planned statistical analyses indicated a projected minimum sample size for teachers' descriptions for approximately 60 students. In addition, Hair and Hampson (2005) have suggested a minimum sample size of 20 cases per group for MANOVA analyses, which is consistent with this design that included three groups for the one-way MANOVA. For one-way ANOVAs, a minimum of 20 for each of the three IV groups would be appropriate when alpha = .05,

effect size  $\omega^2 = .14$ , and power = .80. If data did not meet assumptions of these planned analyses, I intended to use appropriate nonparametric alternatives.

### **Procedures for Recruitment, Participation, and Data Collection**

Once I secured approvals from the Walden University IRB (#07-06-16-0104008) and from the superintendents of the school systems where I planned to conduct the research, I distributed a letter of introduction and information about the research and rights as participants to approximately 85 6-8 grade teachers (62 from District A and 23 from District B) who were familiar with the students identified in the school districts' formal investigations. The school districts are mandated by the state's Anti-Bullying Bill of Rights to investigate reports of bullying/inappropriate behaviors. These investigations are conducted by a designated bully specialist within the school who collects data to confirm such behavior. If the behavior and actions of an encounter are deemed to be bullying, the bully(ies) and victim(s) are identified, and suggestions are given to address the matter for the future (i.e., counseling, separations). A final report is required for all incidences investigated by the bully specialist. I used reports of final determinations from these investigations to identify students who had been identified as bullies or victims in confirmed incidences of bullying (as well as students who had been identified as both bullies and victims across various separate incidents). Once students were identified, I also identified teachers who had worked with these students during the previous school year for participation in the study.

Each student was described by one teacher with sufficient familiarity with the student from classroom interactions. Teachers whom I approached to be in the study were

not informed that the students were involved in the formal investigations related to aggressive behaviors. Instead, I told teachers that the students had been randomly selected for a study on classroom behaviors. Core subject teachers (English, Social Studies, Science, and Math) who had worked with the target students were asked if they would agree to participate and were provided with an informed consent form and questionnaire regarding their familiarity with the specific student (see Appendix E). Of the 85 teachers, 33 (21 from District “A” and 12 from District “B”) returned their consent forms and familiarity questionnaires. I selected each teacher who volunteered *and* described sufficient familiarity with the student to complete the next phase of questionnaires regarding that student. A final total of 27 teachers completed packets to describe 58 students. Several of the teachers completed survey packets for more than one student, but each student was described by only one teacher.

I distributed the respective survey materials via teacher mailboxes, with instructions for completion as well as instructions for how to return the completed surveys to me in order to guarantee security and confidentiality. A self-addressed stamped return envelope was included in each packet. My return address was a private post office box. I collected mail once a week until all the materials were returned. During the data collection period, I followed up using school email to encourage completion of the surveys by the teachers.

I entered quantitative data from the completed questionnaire packets into a file for analysis using SPSS. I assigned students and teachers unique identification numbers to assure proper matching of teacher and student. Names and other key identifiers were not



included in the SPSS file. The raw survey data files that include this identifying information are being stored in a locked cabinet at my home office, and I am the only one who has a key for access. Similarly, all data that were entered into SPSS, as well as output files from analyses, are saved on a password-protected hard drive, to which only I have access.

### **Instrumentation**

**Descriptive demographic data.** I collected general demographic information from the teachers to get basic descriptive information about the sample. However, these demographic data were not considered for further analyses relative to the research questions. The demographic data questionnaire may be found in Appendix A.

**Teachers' bully behavior scale.** I chose to use teacher reports of the identified students' behaviors related to bullying and victimization. Students' self-reports and peer nominations of bullying behaviors by students are unreliable (Cole, Cornell, & Sheras, 2006). At the same time, there only was limited research looking at descriptions of bullying behaviors for individual students by other informants, such as teachers. In fact, there were no questionnaires for evaluating teacher descriptions of *individual* students' bullying behaviors. However, I was able to modify a measure used with success by Limber and Sampson (2003) for studying teachers' descriptions of groups of students. Pagliocca et al. (2007) employed 16 questionnaire items that were adapted from the Olweus Bully/Victim Questionnaire (OBVQ; 1996) to study teacher and parent perceptions of bullying in groups of students. There is a subset of items that describe victimization experiences and another subset of items that describe bullying behaviors.

Limber and Sampson's (2003) 16 questionnaire items are consistent with accepted definitions/indicators of bullying, including teasing, exclusion, physical aggression, threats, and gestures, as well as victimization (Hamburger et al., 2011). Kyriakides, Kaloyirou, and Lindsay (2006) found good internal consistency of self-reports by students for the items on the OBVQ (victimization subscale,  $r = .92$ ; bully subscale,  $r = .91$ ). In addition, as would be expected conceptually, responses on the two subscales were negatively related ( $r = -.78$ ,  $N = 335$ ,  $p < .001$ ). Scores on the two subscales of the OBVQ often are used to classify youths into one of four categories: uninvolved (low scores on both subscales), bullies (high on bullying, low on victimization), victims (low on bullying, high on victimization), or bully-victims (high scores on both subscales (Fanti & Kimonis, 2013).

Pagliocca et al. (2007) administered the modified OBVQ Questionnaire over a 2-year period to 1,989 parents and 250 teachers of American students attending grades 3 through 6 in one public school in the Northeast United States. For this study, I slightly modified wording for instructions to ask teachers to consider the same indicators of bullying behavior (as a bully and/or victim) for *specific identified youths* rather than for groups. These instructions asking the respondent to consider a specific child are consistent with standard procedures used previously in other common measures of teacher and parent reports for student/child behaviors (e.g., the Parent-Report Victimization Scale; Ladd & Kochenderfer-Ladd, 2001), including the Teacher Rating Form and SNAP-IV, which also was used in this study. Instructions to teacher

participants was follows: “Please read each statement. Then, choose the rating (1 to 5) that best describes how frequently this statement is true for this student.”

The instructions I distributed included the following description of bullying, which has been used for the Bully Survey (Swearer & Cleary, 2003). My instructions read:

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

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

Each of the items was presented with the same 5-point rating scale as employed by Pagliocca et al. (2007): (1) Never; (2) Almost Never; (3) Sometimes; (4) Almost Always; (5) Always. In addition, the same items used by Limber and Sampson (2003) were presented (with modification for “this student”) with the first eight questions inquiring about experiences of victimization, and the second eight inquiring about bullying behaviors.

**Types of aggression.** The Teacher Rating Scale by Brown et al. (1996) is a 28-item measure developed to assess levels of proactive aggression, reactive aggression, covert antisocial behavior, and prosocial behavior. I presented each of the items on this

scale with a 3-point rating scale that was employed by Brown, et al. (1996): (1) Never; (2) Sometimes; and (3) Very Often.

In developing this scale, Brown et al. (1996) administered the items to 186 teachers who taught boys in grades three through five. Items were presented with the following rating scale: never = 0, sometimes = 1, and very often = 2. The means for the 21 items on aggression and antisocial behavior scales ranged from .12 to .71. In keeping with the theoretical constructs of interest, factor analysis identified independent and internally consistent proactive Aggression and reactive Aggression factors. The proactive aggressive items and covert antisocial items were in the first factor, while the second factor consisted of six reactive aggressive items. The third factor was labeled as unclassified items due to high loadings of both factors. Brown et al.'s factor analysis supported factorial validity of the Teacher Rating Scale and offered better results than those reported by Dodge and Coie (1987) of their measure of reactive and proactive aggression.

Brown et al. (1996) also found that factor scores on the two primary factors were significantly correlated with negative peer status (neglected or rejected). The reactive aggression factor had a non-significant partial correlation with negative peer status and a significant partial correlation with in-school detentions. Partial correlations for proactive aggression were non-significant for negative peer status and non-significant for in-school detentions. The factors derived from this scale demonstrated stronger psychometric properties than the factors obtained by Dodge and Coie (1987) based on stricter criteria for factor retention.

**Symptoms of ODD and other behavioral disorders.** The SNAP-IV Rating Scale is a revision of the Swanson, Nolan, and Pellham (SNAP) Questionnaire. The items for the DSM-IV (American Psychiatric Association, 1994) criteria for ADHD are included for two subsets of symptoms: inattention (items 1-9) and hyperactivity/impulsivity (items 21-28) and criteria for ODD (items 21-28). Two other subscales of the SNAP-IV which are of interest for this research are the two subscales for subsets of symptoms based on DSM-IV criteria for ADHD (inattention, items 1-9 in this section of this study's survey; hyperactivity, items 11-19) and DSM-IV (1994) criteria for oppositional defiant disorder (ODD; items 21-28).

Other items on the scale are from other DSM-IV disorders which may overlap or be comorbid disorders with symptoms of ADHD. If symptoms receive a high rating, then the assessment of the implication of non-ADHD disorders may be warranted. The SNAP-IV also contains items from the Connors Index Questionnaire and the Iowa Connors Questionnaire. Finally, the scale also includes 10 items of the SNAP Rating Scale. The SNAP-IV contains a checklist that is derived from the DSM-IV symptoms criteria for ODD (APA, 1994) and other diagnoses. The SNAP-IV is based on a 0 to 3 rating scale including rating scales that include (not at all; just a little; quite a bit; very much). The ODD subscale items will be numbers 21-28 for the section of this study's survey. The short version of the scale is a 26-item including 18 ADHD symptoms and 8 ODD symptoms specified in DSM-IV.

Bussing et al. (2008) reported the Cronbach coefficient alpha for overall teacher ratings was .97. The inattentive coefficient was .96 for teachers. The

hyperactive/impulsive coefficient was .92 for teachers, while the ODD coefficient was .96 for teachers. The interrater reliability between teacher ratings was .49 for inattention, .43 for hyperactivity/impulsivity, and .47 for ODD and all were statistically significant.

## **Planned Analyses**

### **Cleaning and Screening Data**

Results of actual cleaning and screening of raw data are presented in Chapter 4. Plans were to double check all data for accuracy of entry and to use SPSS Descriptive functions (Mertler & Vannatta, 2005, pp. 64-65) to screen for missing values and outliers, following guidelines set forth by Tabachnick and Fidell (2001). For example, univariate outliers would be identified through inspection of box plots and values for skewness and kurtosis; data points that were more than 2.5 standard deviations from the mean would be considered outliers (Hair et al., 2005). As MANOVA analysis was planned, multivariate outliers were to be evaluated by computing the Mahalanobis distance of each case from the multivariate mean; differences with  $p < .001$  are possible candidates for elimination (Hair et al., 2005). Similarly, outliers would be evaluated as to whether they were simply errors (either by the respondent or in data entry) and could be deleted, or if they had been representative of the range of responses within the population being sampled, which had led for considering the transformation of the data to approximate normalization of the distribution, while also preserving these more extreme cases. The nature of the transformation method would depend on the shape of the initial distribution of the raw data (degree of deviation from normal and the direction of the skew; Tabachnick & Fidell, 2001). With respect to missing values, it was planned that if no more than 5% of

data on a given variable are missing and the pattern of missing values appears to be random, list wise default will be used; if 5-15% cases are missing, missing values will be replaced with the group mean for that variable. If a greater proportion of scores were missing and/or the pattern of missing values did not appear to be random, then no replacements would be applied, and the variable would not be used for further analyses for that case (Mertler & Vanatta, 2005, p. 62). Finally, if assumptions for use of these parametric analyses were not met, appropriate nonparametric options would be used.

### **Reliability of the Observed Data**

I computed Cronbach's alpha to estimate the internal consistency of ratings from this study's samples of teachers on each of the subscales used to measure the dependent variables. To be considered reliable, Cronbach alpha should exceed .60 for exploratory research; however, the minimum value of .70 is used more widely as the cutoff criterion (Hair et al., 2005, p. 137).

### **The Research Questions and Hypotheses**

I developed the following general research question for this study: Are there between-group differences in symptoms of childhood behavioral disorders and/or forms of aggression in relation to male students' bullying behaviors/experiences (i.e., bully, victim, bully-victim)? The two specific research questions and their related hypotheses were as follows:

**Research Question 1.** Do teachers report differences in levels of symptoms of behavioral disorders (ODD, ADHD, CD as measured by the SNAP-IV) among students

who differ in bullying behaviors/experiences (bullies, victims, bully-victims; as measured by the Bully Behavior Questionnaire)?

**H1<sub>0</sub>.** There will be no reported differences in levels of symptoms of behavioral disorders as a function of bully behavior/experiences.

**H1<sub>a1</sub>.** In general, reported levels of symptoms of behavioral disorders will differ as a function of bully behaviors/experiences.

**H1<sub>a2</sub>.** Bully-victims will be described as having the highest levels of symptoms related to ODD, frequently with ADHD, when compared with bullies and victims.

**H1<sub>a3</sub>.** Bullies will be described as having the highest levels of related to CD, when compared with bullies and victims.

**H1<sub>a4</sub>.** Victims will be described as having the lowest levels of symptoms on behavioral disorders. That is, victims will be described as lowest on symptoms of ODD, CD, and ADHD.

**Research Question 2.** Do teachers report differences in forms of aggression (reactive, proactive; as measured by the Teacher Rating Scale) among students who differ in bullying behaviors/experiences (bullies, victims, bully-victims, as measured by the Bully Behavior Questionnaire)?

**H2<sub>0</sub>.** When bullies, victims, and bully-victims are compared, there will be no reported differences in forms of aggression as a function of bully behavior/experiences.

**H2<sub>a</sub>.** In general, reported forms of aggression will differ as a function of bully behavior/experiences. Specifically, when bullies, victims, and bully-victims are



compared, bully-victims will have the highest scores on reactive aggression, while victims will have the lowest.

**H2b.** When bullies, victims, and bully-victims are compared, victims will be described as having the lowest scores for proactive aggression, relative to bullies and bully-victims. It is expected that bullies will be described as higher on proactive aggression than bully-victims.

### **Descriptive Summaries of Data**

**Demographics.** Before testing the research hypotheses, I presented characteristics of the sample by reporting grouped frequency distributions for the various demographic information that was collected from the teacher respondents.

**Quantitative data.** Descriptive statistics (mean, median, mode, standard deviation, skewness, kurtosis) were computed for each of the quantitative measures for the independent and dependent variables.

### **Classification of Students on Bully Behavior for the Independent Variable**

The plan was to use teachers' descriptions of students on the Bully Behavior Scale to classify students on the independent variable. Following previous methods, students who are low on both the bully and victim subscales would be classified as uninvolved (students whose scores neither qualified as a victim or a bully), students who score high on bullying and low on victimization would be classified as bullies, students who are low on bullying and high on victimization would be classified as victims, and students who are high on both would be classified as bully-victims. However, as will be

discussed in Chapter 4, I used the results of the school's formal investigation descriptions of actual behavior to classify students on the independent variable.

### **Testing Assumptions for Planned Statistical Analyses**

The planned analysis for this study was a one-way multivariate analyses of variance (MANOVA) to test for between-group differences predicted in each of the two main hypotheses. The independent variable is bully classification (bully, victim, or bully-victim) and the dependent variables are the symptoms of behavioral disorders (ODD, CD, and ADHD) and types of aggression (proactive/instrument, reactive impulsive). The MANOVA was selected, rather than multiple univariate analyses of variance (ANOVAs), to reduce inflation of alpha due to multiple statistical tests. In addition, MANOVAs are appropriate when the dependent variables are moderately correlated. Previous research has noted that measures on the behavioral variables (ODD, ADHD, and CD) are moderately correlated (Angold et al., 1999; Biederman, Newcorn, & Sprich, 1991; Faraone, Biederman, Mennin, Russell, & Tsuang, 1998; Maughan, Rowe, Messer, Goodman, & Meltzer, 2004; Simonoff et al., 1997), and Ghosh and Sinha (2012) have argued that they should consider as belonging to a common psychopathological spectrum. Similarly, moderate to moderately large correlations have been observed between measures of reactive and proactive aggression ( $r = .77$ , Dodge & Coie, 1987;  $r = .75$ , Poulin & Boivin, 2000;  $r = .80$ , Price & Dodge, 1989).

Application of the multivariate analysis of variance (MANOVA) requires that the data meet basic assumptions for that parametric statistic. Each of these assumptions will be tested. These assumptions are as follows:

**Normality.** The first assumption is that the distribution of the scores is normal. Because multivariate normality first requires univariate normality, the first analyses examined the skewness ( $S$ ) and kurtosis ( $K$ ) values for the distribution of the composite scores: because of the relatively small sample size for this study, values of  $S$  and  $K$  which exceed an alpha level of  $p = .001$  had been considered as violating the assumption of normality. Another measure of univariate normality was the results of the Kolmogorov-Smirnov test; if the value is statistically significant ( $p < .001$ ), the distribution will be considered not normally distributed. Multivariate normality is characterized by (1) normal univariate distributions, (2) normally distributed combinations of variables, and (3) multivariate normal distribution of all subsets of variables (that is, all possible combinations of the dependent variables; Mertler & Vannatta, 2005, pp. 30-31). As SPSS does not offer a statistical test for multivariate normality, bivariate scatterplots of all pairs of dependent variables was examined; when the pairwise scatterplot has an elliptical shape, there is indication of a normal distribution of the combination of the variables (Mertler & Vanatta, 2005). Since the evaluations suggest non-normality of a variable or combination of variables, an attempt was made to repair the non-normality by applying an appropriately agreed upon transformation (e.g., the square root is taken of each score, dependent upon the degree and direction of nonnormality; Tabachnick, & Fidell, 2001).

**Linearity.** It is assumed that the nature of any relationship between any pair of dependent variables follows a straight line. This is required because the MANOVA uses the Pearson correlation statistic to evaluate the linear combinations of the dependent variables, and the Pearson correlation statistic is not accurate if the relationship between

two variables is curvilinear or bimodal. Linearity was determined by examining plots of prediction errors (residual values), that is, the differences between the predicted values and the observed values for pairs of scores on a bivariate regression. Linearity was indicated when the residuals fell around a straight line, but nonlinear when they fell into a curved pattern (Mertler & Vannatta, 2005, p. 32).

**Homoscedasticity.** This assumption requires that the variability of scores within the different groups of data were roughly the same. While the Levene's test was used to evaluate this assumption for univariate analyses (one-way ANOVAs), examination of bivariate scatterplots and computation of Box's M for equality of variance-covariance matrices was used to evaluate this assumption for multivariate analyses. A statistical significance of Box's M is  $p < .05$ , and the result was not due to violation of the normality assumption, then the assumption that the covariance matrices are equal will be rejected (Mertler & Vannatta, 2005, p. 34). Again, these evaluations suggested non-normality of a variable or combination of variables, an attempt was made to repair the non-normality by applying an appropriate transformation (dependent on the degree and direction of non-normality; Tabachnick & Fidell, 2001).

Although parametric tests are relatively robust when there are deviations from the assumptions (Tabachnick & Fidell, 2001), significant deviations had been recognized and addressed. As noted earlier, data transformations are mathematical adjustments to the data that can be applied when there are violations of assumptions. The nature of the transformation method depends on the shape of the initial distribution of the raw data (degree of deviation from normal and the direction of the skew; Tabachnick & Fidell,

2001). When violations are not remedied with transformations, the variable that does not qualify will be rescaled from a continuous variable to a discrete variable (i.e., ordinal data/ranks). When the dependent variable (behavioral disorders and types of aggression) is a discrete variable, an appropriate nonparametric statistical test will be used to test for between-group differences for that DV. As will be seen in Chapter 4, this was necessary. The Kruskal-Wallis test was used to compare the three groups (independent variable) for the relative ranks of the values that are collected on the dependent variable. In addition to an overall estimate of the probability of observed between-group differences in ranks, the Dunn's multiple comparisons test was used for pairwise comparisons of groups on the independent variable (Corder & Foreman, 2009).

### **Threats to Validity**

Sampling was limited to teachers of male middle school students in two school districts, with their own demographic characteristics, which may not be representative of other districts. Also, selection of participants was purposeful, rather than random, and was a convenience sample of volunteers. Thus, generalizability of findings may be limited.

Possible additive and interactive effects of completing several questionnaires is unknown. For example, the process of completing one questionnaire on bullying behavior/experiences may sensitize a respondent's descriptions of the student on another measure of symptoms of behavioral disorders, perhaps leading slightly different descriptions than might be observed if they had not completed the measure on bullying first.

Time of data collection may have affected teachers' perceptions. For example, teachers may have had a different opinion of the student the school year prior versus the first half of the following school year, therefore considering a student with whom they have not had recent contact.

### **Ethical Considerations**

A list with the student's name, teacher's name, and the matching identification code, was maintained in the same secure, locked site, under the supervision of the researcher, as with the signed informed consent forms. All other, unidentifiable data are being stored in a secure, separate location. Paper copies are being locked in a secure file cabinet, and any files with information and data from the study are stored in password protected files, available only to the researcher. Data, analyses, written reports of such data, and any other information related to the study will remain in secure, locked/password protected locations for at least 60 days, or up to five years' time, depending on the need for access to the materials for further analyses, reports, etc. After seven years, raw data (including the list with names and identification numbers, raw survey data) will be destroyed by cross-shredding. Spreadsheets and SPSS data and output files may be maintained longer according to Walden University IRB requirements, and under strict password protection, if future analyses or reports are planned.

### **Summary and Conclusions**

The key focus of this quantitative, exploratory survey research was to examine whether a sample of male grade school students with different bullying behaviors and experiences (bullies, victims, bully-victims) differ significantly in ODD and other

behavioral disorders (ADHD, CD) and in patterns of aggression (reactive, proactive), as reported by teachers. It is generally predicted that students described as bully-victims will be significantly characterized with symptoms of ODD and reactive patterns of aggressive behaviors. MANOVA and univariate ANOVA analyses had been used to test the specific hypotheses for this study.

Chapter 3 has included the proposed methodology for this investigation of between-group differences, as described by teachers, of students with different types of bullying experiences and assessments of the students' behavioral disorders and types of aggressive patterns. In Chapter 4, I will describe the analyses and results of data in relation to the research hypotheses. In Chapter 5, I will offer and discussion of the results and implications for social change and further research.

## Chapter 4: Results

### Introduction

In this study, I explored between-group differences in teachers' reports of symptoms of childhood behavioral disorders and forms of aggression for students whose previous actions were classified as consistent with bullies, victims, or bully-victims. Teachers were not informed of the students' involvement in the formally investigated incidents of bullying and victimization.

I developed the following two research questions to guide the study:

**Research Question 1.** Do teachers report differences in levels of symptoms of behavioral disorders (ODD, ADHD, CD as measured by the SNAP-IV) among students who differ in bullying behaviors/experiences (bullies, victims, bully-victims; as measured by the Bully Behavior Questionnaire)?

**H1<sub>0</sub>.** There will be no reported differences in levels of symptoms of behavioral disorders as a function of bully behavior/experiences.

**H1<sub>a1</sub>.** In general, reported levels of symptoms of behavioral disorders will differ as a function of bully behaviors/experiences.

**H1<sub>a2</sub>.** Bully-victims will be described as having the highest levels of symptoms related to ODD, frequently with ADHD, when compared with bullies and victims.

**H1<sub>a3</sub>.** Bullies will be described as having the highest levels of related to CD, when compared with bullies and victims.



**H1<sub>a4</sub>.** Victims will be described as having the lowest levels of symptoms on behavioral disorders. That is, victims will be described as lowest on symptoms of ODD, CD, and ADHD.

**Research Question 2.** Do teachers report differences in forms of aggression (reactive, proactive; as measured by the Teacher Rating Scale) among students who differ in bullying behaviors/experiences (bullies, victims, bully-victims, as measured by the Bully Behavior Questionnaire)?

**H2<sub>0</sub>.** When bullies, victims, and bully-victims are compared, there will be no reported differences in forms of aggression as a function of bully behavior/experiences.

**H2<sub>a</sub>.** In general, reported forms of aggression will differ as a function of bully behavior/experiences. Specifically, when bullies, victims, and bully-victims are compared, bully-victims will have the highest scores on reactive aggression, while victims will have the lowest.

**H2<sub>b</sub>.** When bullies, victims, and bully-victims are compared, victims will be described as having the lowest scores for proactive aggression, relative to bullies and bully-victims. It is expected that bullies will be described as higher on proactive aggression than bully-victims.

I chose an exploratory study because, although qualitative designs often are associated with exploratory research, it also can be applied using quantitative methods when the researcher's goal is to evaluate a research question that is in early stages of investigation. Some of the exploratory aspects might "help in determining the research design, sampling methodology, and data collection method" that may advance the study

of a rather novel research question (Singh, 2007, p. 64). In my case, I was trying to evaluate relationships that quantitative researchers have previously have found elusive. I also explored whether teacher informants can be useful for this research, as well as whether questionnaires for teachers that previously were used to ask teachers to describe groups of students may be applied to individual students. Finally, I was looking at the usefulness of formal investigations by school personnel into student behaviors to identify students who demonstrate bully-victim behavior patterns. Each of these elements are challenges to current research in this area of study. In many ways, this was a feasibility study for design elements themselves. Because of this, the relative reliability and validity of the methods themselves cannot be taken for granted. Similarly, the interpretations of the results must be guarded. However, this exploratory study is important because it offers more information about research choices that may inform future research in this area.

I designed this exploratory study to investigate bully-victim patterns of aggressive behavior among middle school age males and symptoms of behavioral disorders. While my review of theory and research indicated a conceptual association between bullying and behavioral disorders, the literature showed a gap in examining such relationships, especially between bullying behaviors and ODD. I addressed this gap by surveying 27 teachers to assess their reports of aggressive behaviors and socioemotional patterns of 58 male middle school students who were identified through formal school investigations as involved in bullying incidents. Based on the inconclusive results of the research questions, it is not possible to deduce that such a relationship exists. Regardless,

exploration of the literature and professional understanding of the matter led me to believe that there may be difficulty identifying students who present with bully-victim patterns, especially when identified through formal investigative reports or similar means to track patterns of aggression. If this is the case, it remains a practical challenge to differentiate them from students who demonstrate the pure bully pattern. This further indicates that they are at risk of falling under the radar for potential support and effective intervention.

In this chapter, I provide a detailed report of the methodology used, including sampling and collection procedures, data management, ethical procedures, statistical analyses to test hypotheses, and results of these analyses.

### **Sampling and Data Collection**

The formal data collection phase of this study occurred from the date of the initial approval by the Walden University IRB (#07-06-16-0104008) on July 6, 2016, to July 5, 2017, when the final gift cards were distributed to teacher participants.

Once the IRB approved the application on July 6, 2016, I sent an email to both participating districts' administrative liaisons informing them of the approval by the Walden IRB with the approved copy of the consent form attached. Because it was the summer and schools were not in session, it took over 3 weeks for me to meet with one of the participating school districts' administrators to confirm the process for obtaining (a) information from the formal investigation reports regarding students identified as being involved (either as a bully or victim) in a bullying experience who were male and in the selected grades (6-8), and (b) information identifying core subject teachers who would

have worked with the students in English, math, social studies, and science classes. A week later, I was able to meet with the other participating district's administrative liaisons also to review data collection. The administrator recommended adding more clarification to the teachers' informed consent form and letter of invitation. Upon discussion with my dissertation chair, I revised both the consent form and the invitation form and submitted them to the IRB for review.

Once approval of the revision had been granted by the Walden IRB (10 days later), I sent an email to both participating districts to reiterate what information was needed for Phase 1 of the study (i.e., collecting information about students identified through formal investigations, as well as lists of core teachers). Two months later, I received information on all formally investigated confirmed cases from the formal investigations for one of the participating districts and identified the names of those students who fit the criteria. I then reviewed the schedules of those students and developed a list with names of core subject teachers who would have taught these students. Similar information was gathered from the second school district.

Once Phase 1 (identifying target students and their teachers) was completed, I met again three weeks later with one of the school districts' administrative liaisons. At this point, further revisions were requested for the consent form and invitation to provide another layer of protection for confidentiality and to elaborate on the "randomness" of the selection process by changing the wording and adding a non-disclosure section the consent form. As prior, I submitted the revisions to the Walden IRB for approval.

Three weeks later, I received IRB approval for the revisions. Immediately, I began Phase 2 (teacher consent to participate). I reached out to both participating districts and met with all four building principals whose teachers would be asked to participate in the study. This helped me to narrow my list of teachers to those who were still active within the district. All building principals sent an email to those teachers who had been identified as core teachers for the target students to inform them that they had been “randomly selected” to participate in the study and that an envelope would be placed into their work mailbox to better understand the research study. The day following the email, a sealed envelope was placed into the school mailbox of each of those potential participants. This initial step was to identify which teachers would be willing to participate in the study. The packet included directions, the consent form, the invitation letter, and a self-addressed stamped return envelope. Throughout the study, material that was distributed to teachers was in sealed envelopes and placed into their mailboxes. I sent a reminder email to each prospective participant a couple of days after they received their packet.

After return from winter break, I distributed another email to those teachers who had consented to take part in the study. This email reminded them that another envelope with further instructions would be distributed to them (Phase 3; teacher familiarity with students). Ten days later I distributed another packet to their mailboxes. This envelope included the Teacher’s Demographic questionnaire and the Teacher’s Familiarity questionnaire, along with directions and a self-addressed stamped return envelope. Each teacher was asked to describe his or her familiarity with each of one or more (maximum

of 5) targeted students whom they had taught. Each teacher was given an identification number on the Teacher's Demographic questionnaire for future cross-classification of teacher evaluator with student being evaluated.

A total of 58 students were identified through formal investigation reports, and a total of 27 teacher volunteers qualified as evaluators. The next step was to distribute a final packet for each target student to each participating teacher with the final set of questionnaires (SNAP-IV, Revised Teacher, Revised Bully and Victim).

Because my original goal was for a larger sample size of students to be described, including a sufficient number for each of the three bully/victim groups, and upon the advice of my chair, I extended data collection time. I reviewed further formal investigation reports for another reporting period (September-January) for the two participant school districts. This resulted in adding only four more students who met criteria. Procedures described above for identifying teachers with sufficient familiarity and then completing the final packet were then repeated for these final additional student targets.

One week after all material was accounted for, I emailed a thank you to all teachers who had participated and reminded them that a compensation gift card would follow shortly. An electronic gift card was sent to each participant one week later. A reminder email was sent two weeks later for those who had not opened the email to collect the gift card.

As mentioned in Chapter 3, several discrepancies had to be resolved. In order to be consistent with the verbiage, middle schools within this region of the United States

includes 8<sup>th</sup> grade, which had been excluded during the proposal stage of the dissertation. Therefore, with the approval of the IRB, I was able to include another grade, which allowed for more students to be included. Also, the text mentioned that approximately 20 teacher participants would be distributed measurements to complete. It appeared by the initial phase of data collection, the number of participants would be higher. The request to allow a larger number of participants had been granted by the IRB. Another matter was resolved with the IRB, which included adding a participating district with similar demographic background. Adding an additional district to the study allowed for more sampling, which created greater validity. Further, the contact with participants was done through work email accounts. Therefore, the collection of cell phone numbers, as stated in the proposal, was not necessary. Finally, the use of Google Forms to complete questionnaires electronically was unnecessary. The paper-pencil format was suited for the population of participants as far as time and practicality.

At first the data were entered into an Excel file so that I could keep track of the incoming data. After all the data were retrieved and entered into the Excel file, they were transferred into an SPSS data file. Quantitative data from the completed questionnaire packets were analyzed using SPSS (version 21).

### **Sample Characteristics**

#### **Teacher Characteristics**

A total of 27 teachers volunteered to complete the questionnaire packet for students identified through formal school investigations. Demographic characteristics of these teachers are summarized in Table 1. As may be noticed, the teachers were

predominantly female (92.5%) and seasoned professionals with 7 or more years within education (55%).

Table 1

*Demographic Characteristics of Teacher Informants*

Variables	Frequency	Percentage
District		
“A”	19	70.3
“B”	8	29.7
Gender		
Male	2	7.5
Female	25	92.5
Age		
22 – 29	8	29.6
30 – 35	4	14.8
36 – 40	3	11.1
41 – 45	5	18.5
46 – 50	4	14.8
51 – 55	1	3.8
56 – older	2	7.4
Highest Level of Education		
College	9	33.3
Graduate	18	66.6
Doctorate	0	0
Years in Education		

(table continues)



Variables	Frequency	Percentage
	0 – 1	0
	2 – 3	3
	4 – 7	6
	8 – 12	5
	13 – 20	7
	21 and more	6
Years of Teaching		
	0 – 1	0
	2 – 3	3
	4 – 7	6
	8 – 12	5
	13 – 20	7
	21 and more	6
Years at Current School		
	0 – 1	0
	2 – 3	5
	4 – 7	12
	8 – 12	6
	13 – 20	2
	21 and more	2
Years at Current District		
	0 – 1	0
	2 – 3	4
	4 – 7	9
	8 – 12	6

(table continues)

Variables	Frequency	Percentage	
	13 – 20	4	14.8
	21 and more	4	14.8
Subject Currently Teaching			
	English	8	29.6
	Math	10	37.0
	Social Studies	5	18.5
	Science	3	11.1
	All	1	3.8

Many teachers (70.3%) were from District “A.” The largest group (29.6%) was under the age of 29, with only 11.1% 51 years of age and older. Twice as many had a graduate degree (66.6%) versus a bachelor’s degree (33.3%). Most teachers (66.6%) reported eight or more years of teaching experience. With respect the amount of years teaching at their current school, 44.4% had between four to seven years, while 37% had been teaching for over seven years at the same school. A majority (51.8%) of teachers had been teaching in the same district for at least 8 years. Out of 27 participants, 29.8% taught English, 37% taught Math, 18.5% taught Social Studies, 11.1% taught Science, and only one participant taught all four subjects.

### **Student Characteristics**

I identified a total of 58 male students from formal investigation reports who met criteria for this study. Of these, 30 students were identified by investigation results as being the bully in the incident(s), 24 as being the victim in the incident(s), or six as being in both the bully and victim roles across various incidents. The investigation reports were

used to classify students for further analyses. I made this decision because I discovered that classification using the teachers' descriptions of the students on the Bullying Questionnaire (Bullying Scale) did not show a statistically significant association with the formal investigation findings. Teachers may not have the opportunity to observe the kinds of situations and behaviors documented by the investigation, the classifications based on the formal reports were considered more reliable and valid as a measure of bully behavior.

Table 2

*Frequencies in Teacher Familiarity with Student on Formal Investigation Report When They Had Taught*

Variables	Frequency	Percentage
How many months knew student?		
1 – 2	2	3.4
3 – 4	0	0
5 – 6	5	8.6
7 – 8	0	0
9 – 12	51	87.9
Any previous information about the student?		
Yes	27	46.5
No	29	50.0
Don't Recall	1	1.7
No Response	1	1.7

(table continues)

Variables	Frequency	Percentage
Any information about student's relationship or behavior toward others.		
Yes	12	20.6
No	40	69.0
Don't Recall	3	5.1
No Response	3	5.1
Any personal relationship with parents of students.		
Yes	1	1.7
No	57	98.2
Any information about student's performance in other classes.		
Yes	32	55.1
No	24	41.3
Don't Recall	1	1.7
Don't Recall	1	1.7

### **Teacher Familiarity with Students Identified for Evaluation**

Teachers completed a questionnaire to assess their familiarity with students to be sure that students were assigned to teachers who had adequate familiarity with the student to be evaluated. Table 2 presents the general findings. Most participants (87.9%) had known the student for at least nine months of an entire school year. Only one participant had known the target student for only one to two months. Almost half (46.5%) marked that they had previous information about the student prior to entering their classroom, but after responding to an open-ended follow-up question, most teachers had clarified that

such knowledge was collected by way of previewing the student's IEP (Individualized Educational Plan; special education) or reviewing the districts scheduling/grading system, all of which standard teaching procedures are. Most of responses (89.6%) stated that they had not had any prior information about the student's relationships or behavior toward others. All respondents, except for one, had no prior personal relationship with a parent of the student. Because the participant had not explained his or her interpretation of the words "personal relationship," it was difficult for me to decipher the meaning. I retained this teacher's data. Over half of teachers (55.1%) responded "yes" that they had information about the student's performance in our classes.

### **Internal Reliability of Instrumentation**

Before proceeding with further analyses, it was necessary to evaluate the reliability of the research scales for the sample in this study. Cronbach's alpha was computed to estimate the internal consistency of ratings from this study's samples of teachers on each of the subscales used to measure the dependent variables. The Cronbach's alpha values are summarized in Table 3. Values between .70 and .95 are generally considered acceptable (Tavakol & Dennik, 2012). Observed values ranged from .79 to .96.

Table 3

*Cronbach's Alphas for Internal Consistency of Measurement Instruments*

Measure	No. of items	Cronbach's Alpha
ADHD-Hyperactivity/Impulsivity on SNAP-IV Scale	10	.959
ADHD-Inattention on SNAP-IV Scale	10	.965
ODD on SNAP-IV Scale	9	.961
Inattention/Overactivity on SNAP-IV Scale	5	.890
Aggression/Deviancy on SNAP-IV Scale	5	.927
CD Behavior on Revised Teacher Rating Scale	7	.899
Proactive Aggression on Revised Teacher Rating Scale	10	.938
Reactive Aggression on Revised Teacher Rating Scale	6	.931
Victim Sub-Category on Revised Bully Scale	8	.785
Bully Sub-Category on Revised Bully Scale	8	.890

**Data Cleaning and Screening**

Initial evaluations of the research data included evaluation for errors in data entry, missing values, and outliers. First, I made sure that all the data had been entered accurately, first into Excel and converted into SPSS. Once numerical response codes were entered Excel, I went line-by-line in conjunction with each questionnaire to make sure of accuracy. This data then was transferred to an SPSS data file. Version 21 of SPSS was used for all further analyses.

Data then were evaluated for missing values. The SNAP-IV Questionnaire had only one missing response for item (#14): "Often has difficulty playing or engaging in leisure activities quietly." The TRS questionnaire had multiple missing responses for

describing students on three specific items: item 8 (“Is a leader of playground games”); item 15 (“Changes the rules of the game to help him win”); and item 19 (“Has hurt others to win a game or contest”). Given the content of these items, I only can assume that scale had not been relevant to the age group descriptions as these school age children.

Typically, middle school aged children are not involved in playground activities or games of most sorts. One respondent failed to respond to one item on the Revised Bully Scale (item 1). For all variables that had fewer than 30% missing ratings, I summed participant’s ratings and divided the total of the ratings by the actual number of items the teacher answered on that subscale. If more than 30% of the total number of items were missing a response, that case’s data for that variable were not included in the analyses. However, none were deleted.

Table 4

*Descriptive Statistics for Ratings on SNAP-IV and Revised Teacher Rating Scale Items for Each Student Bully-Victim Group (Based on Formal Investigation Reports)*

Research Scale		Mean	SD <sup>a</sup>	Skewness	Kurtosis
ADHD-Inattention on SNAP-IV Scale		2.74	.903	-.092	.500
	Victim	2.22	.842	.404	-.699
	Bully	3.11	.823	-.314	.425
	Bully-Victim	2.98	.503	1.51	2.00
ADHD- Hyperactivity/Impulsivity on SNAP-IV Scale		2.14	.934	.485	-.986

(table continues)

Research Scale		Mean	SD <sup>a</sup>	Skewness	Kurtosis
	Victim	1.63	.778	1.93	4.02
	Bully	2.36	.995	.216	-1.25
	Bully-Victim	1.78	.454	.000	-5.41
ODD on SNAP-IV Scale		1.94	.893	.438	-1.11
	Victim	1.26	.473	1.31	.590
	Bully	2.38	.966	-.173	-1.53
	Bully-Victim	1.97	.745	1.06	2.04
Inattention/Overactivity on SNAP-IV Scale		2.48	.868	.235	-.745
	Victim	1.93	.694	1.31	3.41
	Bully	2.76	.922	.046	-.970
	Bully-Victim	2.60	.632	-.632	-1.70
Aggression/Deviancy on SNAP-IV Scale		2.08	.972	.475	-1.06
	Victim	1.28	.449	1.85	2.62
	Bully	2.55	1.04	-.070	-1.38
	Bully-Victim	2.05	.839	1.01	1.83
CD Behavior on Revised Teacher Rating Scale		1.74	.540	.090	-1.14
	Victim	1.45	.527	1.03	-.068
	Bully	1.93	.466	-.101	-.46
	Bully-Victim	1.86	.526	-1.08	-.361
Proactive Aggression on Revised Teacher Rating Scale		1.90	.647	.326	-.968
	Victim	1.53	.625	1.69	2.00
	Bully	2.19	.591	-.095	-.599
	Bully-Victim	1.80	.560	-.616	-2.30
Reactive Aggression on Revised Teacher Rating Scale		1.85	.618	-.038	-1.70
	Victim	1.43	.548	.942	-.603

(table continues)



Research Scale	Mean	SD <sup>a</sup>	Skewness	Kurtosis
Bully	2.08	.623	-.286	-.794
Bully-Victim	1.88	.686	-.701	-1.65

Note. Group size: Victim, n = 23; Bully, n = 29; Bully-victim, n = 6.

<sup>a</sup>Standard deviation.

### Tests of Assumptions for Statistical Analyses

Before proceeding with planned analyses to test the hypotheses for this study, I evaluated data to see if they met the assumptions of the statistics for planned analyses. The planned analysis for this study was a one-way multivariate analysis of variance (MANOVA), with one-way univariate analyses of variance (ANOVAs) to test for between-group differences predicted in each of the two main hypotheses. The independent variable was bully classification (bully, victim, or bully-victim) and the dependent variables were symptoms of behavioral disorders (ODD, CD, and ADHD) and types of aggression (proactive instrumental, reactive impulsive).

#### Normality

**Outliers.** One important assumption is that the continuous dependent variable is normally distributed. The first consideration for this was whether there were outlier values on the variables. If so, this needed to be corrected, which could help to improve normality of the distribution. Using the Explore function in SPSS 21 to evaluate distribution of DV, I found that none of the variables had outliers.

**Tests of normality.** I evaluated the shape of each variable's distribution, as well as multivariate normality, by reviewing histograms, p-p and q-q plots, skewness and kurtosis (see Table 4), and Shapiro-Wilks results (see Table 5). Results generally indicated problems with normality. These problems were expected, given the values that were observed for skewness and kurtosis for the various bully-victim subgroups.

**Homoscedasticity.** Even with the differences in group sizes, Levene's tests of homogeneity of group variances generally did not show any problems.

Table 5

*Shapiro-Wilks Test of Normality for SNAP-IV and Revised Teacher Rating Scale Scores*

Research Scale	Statistics	df <sup>a</sup>	Sig. <sup>b</sup>
ADHD-Hyperactivity/Impulsivity on SNAP-IV Scale	.903	48	.001
ADHD-Inattention on SNAP-IV Scale	.975	48	.394
ODD on SNAP-IV Scale	.875	48	.000
Inattention/Overactivity on SNAP-IV Scale	.958	48	.083
Aggression/Deviancy on SNAP-IV Scale	.863	48	.000
CD Behavior on Revised Teacher Rating Scale	.917	48	.002
Proactive Aggression on Revised Teacher Rating Scale	.919	48	.003
Reactive Aggression on Revised Teacher Rating Scale	.908	48	.001

Note. <sup>a</sup>Degrees of Freedom. <sup>b</sup>Significance level.

### Tests of Research Hypotheses

The data did not meet the most basic assumption and the distributions did not lend themselves to transformation to approximate normality. Thus, I decided that the best resolution was to treat the data as ordinal, rather than continuous. Ordinal data maintain the information on relative order of ratings (low to high), which is better than simply creating nominal categories. The appropriate between-group alternative with three groups for the independent variable is the Kruskal-Wallis test. Rather than comparing group means as they fall on a normal distribution (e.g., *F*-test), the Kruskal-Wallis analysis (*H* test) compares group mean ranks using probabilities related to Chi Square distributions (Meyer & Seaman, 2013). A separate Kruskal-Wallis analysis was used to test each research hypothesis for each dependent variable. It may be noted that the options of using an ordinal logistic regression or a logit regression to include simultaneously all the independent variables as predictors of bully-victim classification were not possible due to size of the sample. For example, a high percentage (75%) of cells had zero frequencies when all classifications were computed for the logistic regression

Since seven separate Kruskal-Wallis tests needed to be run to test the research hypotheses, a Bonferroni correction was applied to adjust for Type 1 error from multiple comparisons. The adjusted alpha value for rejection of the null hypothesis was set at  $.05/7 = p \leq .007$ . Additional Bonferroni adjustments for alpha value were made automatically within SPSS for post hoc tests following Kruskal-Wallis analyses.

Research Question 1: Do teachers report differences in levels of symptoms of behavioral disorders (ODD, ADHD, CD as measured by the SNAP-IV) among students

who differ in bullying behaviors/experiences (bullies, victims, bully-victims; as measured by the Bully Behavior Questionnaire)?

*H<sub>0</sub>1*: There will be no reported differences in levels of symptoms of behavioral disorders as a function of bully behavior/experiences.

*H<sub>a</sub>1*: In general, reported levels of symptoms of behavioral disorders will differ as a function of bully behaviors/experiences.

*H<sub>a</sub>2*: Bully-victims will be described as having the highest levels of symptoms related to ODD, frequently with ADHD, when compared with bullies and victims.

*H<sub>a</sub>3*: Bullies will be described as having the highest levels of related to CD, when compared with bullies and victims.

*H<sub>a</sub>4*: Victims will be described as having the lowest levels of symptoms on behavioral disorders. That is, victims will be described as lowest on symptoms of ODD, CD, and ADHD.

As may be seen in Table 6, with the adjusted alpha value set at  $p \leq .007$ , there were statistically significant between-group differences for four of the dependent variables. To evaluate the specific hypotheses regarding which bully/victim group would be highest or lowest on the variable, post hoc pairwise tests were computed, using the SPSS function for Kruskal Wallis analyses. Figures 1 to 7 show the mean ranks for each of the three groups for each dependent variable, as well as the result of each pairwise comparison.

Table 6

*Between-Group Differences for Teachers' Ratings of Students in Three Bully-Victim Groups on Dependent Measures*

Dependent Variable	H-value <sup>a</sup>	Significance
ODD	13.93	.001*
ADHD Hyperactivity/Impulsivity	6.80	.033
ADHD Inattention	11.79	.003*
ADHD Inattention/Overactivity	11.02	.004*
Aggression/Deviance	15.66	.000*
CD Behavior	9.87	.007*
Proactive Aggression	9.27	.010
Reactive Aggression	8.32	.016

Note. N = 58; df = 2 \*significant at adjusted alpha of  $p \leq .007$

<sup>a</sup>Kuskal-Wallis test value.

### **Oppositional Defiant Disorder (ODD)**

As may be seen in Table 6, there were statistically significant differences in teachers' ratings of students on ODD symptoms ( $p = .001$ ). In general, victims (Mean Rank ( $MR$ ) = 19.33) had lower scores on ODD than those for bullies ( $MR = 36.28$ ) and bully-victims ( $MR = 35.75$ ). Post hoc pairwise comparisons indicated that teachers' descriptions of symptoms of ODD for victims were significantly lower both when compared with bullies and with bully-victims ( $p < .001$ ; see Table 7). However, contrary to predictions, bullies and bully-victims did not differ for their descriptions.

Table 7

*Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of Students in Three Bully/Victim Groups on ODD Scores*

Pairwise Comparison	Dunn's Test Statistic	Std. Error <sup>a</sup>	Std. Test Stat <sup>b</sup>	Sig. <sup>c</sup>	Adj. Sig. <sup>d</sup>
Victim-Bully/Victim	-16.42	7.72	-2.13	.033	.100
Victim-Bully	-16.96	4.70	-3.61	.000	.001
Bully/Victim-Bully	.526	7.55	.070	.944	1.00

Note. <sup>a</sup>Standard error. <sup>b</sup>Significance level. <sup>c</sup>Significance. <sup>d</sup>Adjusted value.

### **ADHD Hyperactivity/Impulsivity**

Although the overall differences did not reach statistical significance ( $p = .033$ ; see Table 6), the patterns of results were like those for ADHD: victims had the lowest ratings for teachers' descriptions of symptoms of ADHD Hyperactivity/Impulsivity ( $MR = 20.20$ ). Again, contrary to predictions, bullies ( $MR = 36.19$ ) and bully-victims ( $MR = 32.83$ ) did not differ for their descriptions (see Table 8).

Table 8

*Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of Students in Three Bully/Victim Groups on ADHD Hyperactivity/Impulsivity Scores*

Pairwise Comparison	Dunn's Test Statistic	Std. Error <sup>a</sup>	Std. Test Stat <sup>b</sup>	Sig. <sup>c</sup>	Adj. Sig. <sup>d</sup>
Victim-Bully/Victim	-12.64	7.73	-1.63	.102	.307
Victim-Bully	-15.99	4.71	-3.40	.001	.002
Bully/Victim-Bully	3.36	7.57	.444	.657	1.00

Note. <sup>a</sup>Standard error. <sup>b</sup>Significance level. <sup>c</sup>Significance. <sup>d</sup>Adjusted value.

### **ADHD Initiative**

There were overall statistically significant differences in teachers' ratings of the students on ADHD Initiative ( $p = .003$ ; see Table 6). Again, victims had the lowest ratings for teachers' descriptions of symptoms of ADHD Initiative ( $MR = 21.12$ ), being significantly lower both when compared with bullies ( $MR = 33.16$ ) and with bully-victims ( $MR = 28.80$ ). Here, post hoc pairwise comparisons indicated that only ratings for victims and bullies were significantly different ( $p = .027$ ), but neither differed significantly from bully-victims (see Table 9). Again, contrary to predictions, bullies and bully-victims did not differ for their descriptions. (See Table 9.)

Table 9

*Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of Students in Three Bully/Victim Groups on ADHD Initiative Scores*

Pairwise Comparison	Dunn's Test Statistic	Std. Error <sup>a</sup>	Std. Test Stat <sup>b</sup>	Sig. <sup>c</sup>	Adj. Sig. <sup>d</sup>
Victim-Bully/Victim	-6.88	7.40	-.929	.363	1.00
Victim-Bully	-12.04	4.62	-2.61	.009	.027
Bully/Victim-Bully	5.16	7.20	.717	.473	1.00

Note. <sup>a</sup>Standard error. <sup>b</sup>Significance level. <sup>c</sup>Significance. <sup>d</sup>Adjusted value.

### **ADHD Inattention/Overactivity**

As may be seen in Table 6, there were statistically significant differences in teachers' ratings of students on ADHD Inattention/Overactivity ( $p = .004$ ). In general, victims ( $MR = 19.84$ ) had lower scores than those for bullies ( $MR = 34.97$ ) and bully-victims ( $MR = 33.75$ ). Post hoc pairwise comparisons indicated that only ratings for victims and bullies were significantly different ( $p = .004$ ), but neither differed significantly from bully-victims (see Table 10). Again, contrary to predictions, bullies and bully-victims did not differ for their descriptions.

### **Aggression/Defiance**

The analysis showed results generally like those for other dependent measures on behavioral disorders. As may be seen in Table 6, there were statistically significant differences in teachers' ratings of students on Aggression/Defiance ( $p < .001$ ). In general, victims (58,  $MR = 18.76$ ) had lower scores than those for bullies (58,  $MR = 36.52$ ) and bully-victims (58,  $MR = 36.75$ ). Post hoc pairwise comparisons indicated that



teachers' descriptions of Aggression/Defiance for victims were significantly lower than those for bully-victims ( $p < .001$ ) and marginally significantly lower than those for bullies ( $p = .019$  or  $p = .058$ , when adjusted; see Table 11). However, contrary to predictions, bullies and bully-victims did not differ for their descriptions.

Table 10

*Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of Students in Three Bully/Victim Groups on ADHD Inattention/Overactivity Scores*

Pairwise Comparison	Dunn's Test Statistic	Std. Error <sup>a</sup>	Std. Test Stat <sup>b</sup>	Sig. <sup>c</sup>	Adj. Sig. <sup>d</sup>
Victim-Bully/Victim	-13.91	7.62	-1.83	.068	.203
Victim-Bully	-15.13	4.68	-3.24	.001	.004
Bully/Victim-Bully	1.22	7.42	.164	.870	1.00

Note. <sup>a</sup>Standard error. <sup>b</sup>Significance level. <sup>c</sup>Significance. <sup>d</sup>Adjusted value.

Table 11

*Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of Students in Three Bully/Victim Groups on ADHD Aggression/Defiance Scores*

Pairwise Comparison	Dunn's Test Statistic	Std. Error <sup>a</sup>	Std. Test Stat <sup>b</sup>	Sig. <sup>c</sup>	Adj. Sig. <sup>d</sup>
Victim-Bully/Victim	-17.76	4.68	-3.80	.000	.000
Victim-Bully	-17.97	7.68	-2.34	.019	.058
Bully/Victim-Bully	-.233	-7.52	-.031	.975	1.00

Note. <sup>a</sup>Standard error. <sup>b</sup>Significance level. <sup>c</sup>Significance. <sup>d</sup>Adjusted value

### Conduct Disorder Behavior (CD)

As may be seen in Tables 10 and 11, there were statistically significant differences in teachers' ratings of students on Aggression/Defiance symptoms ( $p = .001$ ). In general, victims (Mean Rank ( $MR$ ) = 19.14) had lower scores on ODD than those for bullies ( $MR = 33.07$ ) and bully-victims ( $MR = 31.67$ ). Post hoc pairwise comparisons indicated that teachers' descriptions of symptoms of CD for victims were significantly lower both when compared with bullies and with bully-victims ( $p < .001$ ; see Table 12). However, contrary to predictions, bullies and bully-victims did not differ for their descriptions.

Table 12

*Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of Students in Three Bully/Victim Groups on CD Behavior Scores*

Pairwise Comparison	Dunn's Test Statistic	Std. Error <sup>a</sup>	Std. Test Stat <sup>b</sup>	Sig. <sup>c</sup>	Adj. Sig. <sup>d</sup>
Victim-Bully/Victim	-12.52	7.23	-1.73	.083	.250
Victim-Bully	-13.93	4.55	-3.06	.002	.007
Bully/Victim-Bully	1.41	7.05	.200	.842	.000

Note. <sup>a</sup>Standard error. <sup>b</sup>Significance level. <sup>c</sup>Significance. <sup>d</sup>Adjusted value

Research Question 2: Do teachers report differences in forms of aggression (reactive, proactive; as measured by the Teacher Rating Scale) among students who differ

in bullying behaviors/experiences (bullies, victims, bully-victims, as measured by the Bully Behavior questionnaire)?

**H2o.** When bullies, victims, and bully-victims are compared, there will be no reported differences in forms of aggression as a function of bully behavior/experiences.

**H2a.** In general, reported forms of aggression will differ as a function of bully behavior/experiences. Specifically, when bullies, victims, and bully-victims are compared, bully-victims will have the highest scores on reactive aggression, while victims will have the lowest.

**H2b.** When bullies, victims, and bully-victims are compared, victims will be described as having the lowest scores for proactive aggression, relative to bullies and bully-victims. It is expected that bullies will be described as higher on proactive aggression than bully-victims.

### **Proactive and Reactive Aggression**

Using the Bonferroni adjustments for alpha, the overall differences for teachers' ratings for the three bully groups did not reach statistical significance for either proactive or reactive aggression (See Table 6). However, it is interesting to note that the patterns of results were similar to previous group differences for indicators of behavioral disorders. For proactive aggression, victims' ratings ( $MR = 18.90$ ) were lower than those for bullies ( $MR = 32.06$ ) and bully-victims ( $MR = 23.88$ ). Similarly, for reactive aggression, victims' ratings ( $MR = 33.64$ ) were lower than those for bullies ( $MR = 20.77$ ) and bully-victims ( $MR = 32.83$ ). In both cases, there were suggestions that descriptions of aggression among victims varied most from descriptions of bullies (see tables 12 and 13).

Table 13

*Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of Students in Three Bully/Victim Groups on Proactive Aggression Scores*

Pairwise Comparison	Dunn's Test Statistic	Std. Error <sup>a</sup>	Std. Test Stat <sup>b</sup>	Sig. <sup>c</sup>	Adj. Sig. <sup>d</sup>
Victim-Bully/Victim	-4.97	8.07	-6.16	.538	1.00
Victim-Bully	-13.15	4.34	-3.03	.002	.007
Bully/Victim-Bully	8.18	7.95	1.03	.303	.909

Note. <sup>a</sup>Standard error. <sup>b</sup>Significance level. <sup>c</sup>Significance. <sup>d</sup>Adjusted value

Table 14

*Results of Post Hoc Pairwise Comparisons for Teachers' Descriptions of Students in Three Bully/Victim Groups on Reactive Aggression Scores*

Pairwise Comparison	Dunn's Test Statistic	Std. Error <sup>a</sup>	Std. Test Stat <sup>b</sup>	Sig. <sup>c</sup>	Adj. Sig. <sup>d</sup>
Victim-Bully/Victim	-12.06	7.43	-1.62	.105	.314
Victim-Bully	-12.87	4.60	-2.80	.005	.015
Bully/Victim-Bully	.810	7.26	.112	.911	1.00

Note. <sup>a</sup>Standard error. <sup>b</sup>Significance level. <sup>c</sup>Significance. <sup>d</sup>Adjusted value

### Summary

Chapter 4 began with a review of the purpose of the study, research questions, and related research hypotheses. This chapter provided an overview of the data collection with a detailed report of the methodology used, including sampling and collection procedures, data management, ethical procedures, statistical analyses to test hypotheses,

and the results of these analyses. The data suggested that there were statistically significant between-group differences for four (ODD, ADHD-Initiative, ADHD-Inattention/Overactivity, and Aggression/Deviancy) of the seven dependent variables, with patterns generally showing differences between victims and the two bully groups, but not, as predicted, between the two bully groups. In Chapter 5, I will provide an interpretation and discussion of the data and conclusions. Furthermore, considerations related to the exploratory focus of this study will be discussed. In addition, suggestions for policy, practice, and further research will be presented.

## Chapter 5: Discussion, Conclusions, and Recommendations

### **Introduction**

Without understanding the unique risk factors for students who are identified as bully-victims, it is difficult for schools, mental health personnel, and parents to offer adequate support and intervention for these students. The purpose of this quantitative, exploratory study was to examine differences between youths who are identified as exhibiting different patterns of bullying behaviors or experiences on symptoms of behavioral disorders and aggressive patterns. The independent variable was bullying behavior (bully, victim, bully-victim; Olweus, 1993). The dependent variables included symptoms of behavioral disorders (ODD, CD, and ADHD; APA, 2013) and types of aggression (proactive/instrument, reactive impulsive; Crick & Dodge, 1996).

I completed an exploratory, quantitative, cross-sectional, causal-comparative study to examine between-group differences in 27 teachers' descriptions of a sample of 58 middle school male students in Grades 6 and 7 who had been identified by formal school investigations from school incidence reports and investigations as being involved in bullying situations (either as bully or victim) during the recent school year. Recent cross-lagged longitudinal research by Sentse et al. (2015) with students in Grades 3-6 and 7-9 confirmed previous findings that, when compared with girls, boys were more likely to exhibit overt aggression and bullying behaviors. Teachers familiar with identified students completed a demographics questionnaire and described patterns of behaviors of a target student on the Teacher Rating Scale (Brown et al., 1996; forms of aggression), SNAP-IV (Bussing et al., 2008; symptoms related to ODD, ADHD, and CD), and the

modified Olweus questionnaire (OBVQ; Olweus, 1996; bullying and victimization patterns). I used students' actual behaviors (as confirmed by the school district's formal investigation) to classify male students as bullies, victims, or bully-victims. Due to the characteristics of the data for the dependent measures, I employed Kruskal-Wallis tests for ordinal data to test the hypotheses regarding between-group differences as a function of classification on bullying-related behaviors and experiences.

### **Research Hypotheses and Results**

Essentially, the research hypotheses for this study were only partially supported. As I had predicted, students who were classified as victims were lowest on all measures of symptoms of behavioral disorders (ODD, ADHD, and CD) and forms of aggressive behaviors (proactive, reactive). Contrary to predictions, victims and bully-victims did not differ significantly on any of these measures.

### **Interpretation of the Findings**

Student victims in this study were described by teachers on several behavioral indicators as statistically significantly different from other male students who had been identified through actual reports of behaviors as bullies or bully-victims. Although not all comparisons were statistically significant, victims generally were lowest of the three groups of students on teachers' descriptions of behavioral disorders and aggressive patterns. Therefore, teachers' descriptions of victims were consistent on these two factors with previous descriptions of behaviors that differentiate bullies from victims of bullying, particularly on patterns of internalization versus externalization (Arsenault et al., 2006).

## Discussion of Results

Results of my study failed to discriminate between male students who had been identified as engaging in bullying or both bullying and victimization in terms of behavioral disorders and aggressive patterns. Despite extensive descriptions in the professional literature of key differences between “pure” bullies and bully-victims regarding demeanors, forms of aggression, social dominance, and emotionality (e.g., O’Brennan et al., 2008; Olweus, 1979, 2010; Perry et al., 1988; Schwartz et al., 2007; Swart & Bredekamp, 2009; Terranova, 2009; Unnever, 2005), the teacher informants in this study did not recognize or describe such differences.

While Carr (2013) and Greene et al. (2002) have argued for distinguishing between ODD and CD, it appears that this task may remain a practical challenge. Variations in terminology across studies also cause problems in distinguishing and interpreting ODD and other behavioral problems (Rey & Walter, 1999). Rowe et al. (2005) noted that many children are diagnosed with the more general diagnostic category, disruptive behavior disorder (DBD) not otherwise specified, because of the frequent combination and overlap of various symptoms across diagnostic categories in the *DSM-5* (American Psychiatric Association, 2013).

ODD frequently co-occurs with other psychiatric conditions that include ADHD, conduct disorder (CD), and anxiety and depressive disorders, as shown in the study by Angold et al. (1999) which included comorbidity rates. Although previous researchers, such as Kumpulainen et al. (2001) on bullying patterns also have tended to consider CD and ODD as part of a common behavioral category, other researchers, such as



Greene et al. (2001) have shown that ODD is a unique disorder that can occur with or without comorbid diagnoses (e.g., ADHD) and can be differentiated from other behavior disorders.

Informed differentiation between ODD and CD may be based on specific information that is beyond many informants, including teachers. While the formal investigation reports provided information on actual behavioral patterns for classifying the students who were described in this study as bullies or bully-victims, teachers described those students based on their own interactions with these students in their classrooms. They may not be exposed to the bully-victim pattern of a student across time and situations, or they may have engaged in cognitive conditional situational sampling, selectively triggering past examples of the student's aggression, which then biases against recognition of examples of victimization for these students (Hutter, Kutzner, & Fiedler, 2014). These points will be discussed further with respect to limitations of this study and recommendations for future research.

### **Limitations of the Study**

This study was intended to be exploratory. One of my goals for this study was to consider specific methods that can reliably differentiate victim, bully, and bully-victim behavior patterns. In addition, I wanted to evaluate whether teachers can be reliable informants for studying these types of behavior patterns, as well as possible correlates with behavioral disorders and patterns of aggression. Each of these decisions meant that I introduced relatively untested methods, which in and of themselves are possible

limitations. Results indicated that methods to study possible relationships between bullying behavior and behavioral disorders remain elusive.

I attempted to identify bullying patterns by studying students whose behavior had been documented through formal school district procedures. I used this technique with the hope that it would be more objective than other methods, such as peer nomination (Parkhurst & Hopmeyer's, 1998). However, in the end, there was no advantage for differentiation between students classified as pure bullies with those classified as bully-victims. One key limitation here was that the formal investigation reporting system only provides identification of students as victims or bullies in situations that are investigated, but not as bully-victims. Thus, this unique pattern of behavior may not be recognized and identified for what it is. It is not known if classifying students for this study based on whether they had been identified in investigation reports as both bullies or victims across situations is an accurate method for classification as a bully-victim.

Second, this exploratory study involved a limited population of students who had been evaluated through this formal investigation process. The overall sample size was limited, and the actual number of students identified as bully-victims was extremely small. Only six of the 58 students (10.3%) were classified as bully-victims. In general, bully-victims comprise a small percentage (8.2%) of victimized children (Arsenault, 2006; Olweus, 1979; Schwartz et al. 2007). According to Bradshaw et al. (2008), the bully-victim is involved in 3% of bullying incidents. Vlachov et al. (2011) state that roughly 3-15% of primary and secondary students fall into the bully-victim category. While the incidence rate in my study was comparable to other reports of the relative

frequency of students characterized as bully-victims, it provided a very small number for reliable statistical analyses.

A related limitation is that I sampled students and teachers from only two school districts in one area of the United States, and only gathered information on one point in time regarding the students' behaviors. Choosing a larger, more diverse population would benefit the generalizability of any results. In addition, a longitudinal versus a cross-sectional design might have produced clearer results because the relationships between behavioral disorders and bullying behaviors may change over time.

Finally, teachers may not be truly knowledgeable informants regarding students' aggressive and victimization experiences. Teachers may have limited exposure to certain types of situations which may or may not present opportunities to observe a range of interpersonal behaviors (e.g., bullying, victimization), nor to do so across time to identify bully-victim patterns. Further, the student might have presented one way in interactions observed by the teacher but may have behaved in other ways when alone with peers, with other teachers, or with parents.

In addition, teachers may have attended more to bullying and aggressive behavior because of their awareness that aggressive behaviors are subject to reporting due to state laws and responsibilities. Therefore, teachers may not have recognized when students who sometimes are provocative, irritating, or aggressive become victims themselves. Conversely, they also may not have recognized when students who may be victims become the aggressors.

## **Recommendations**

Results of this exploratory study can be useful in advancing research in this area.

### **Identifying Bully and Bully-Victim Behavior Patterns**

First, more reliable and valid methods should be developed for identifying and differentiating bully-victim patterns among school age youth. Self-report, peer nomination, and teacher and parent reports appear to fall short. Research should explore ways of training and supporting teacher perceptions as they relate to identifying bully-victim patterns of behaviors among students. Teachers have been provided workshops and material to recognize bullying behavior, such as for the formal investigation reporting, but without proper training to recognize patterns of bully-victim behavior (i.e., aggressive provocation and bullying paired with victimization), it will be difficult to identify paths to effective intervention for these students.

### **Ongoing Examination of Relationships between ODD and Bully-Victim Patterns**

Future research should continue to explore the similarities of ODD and bully-victim behaviors. As discussed in this research, behavioral patterns of ODD and bully-victim behavior are very similar. Increasing our understanding of possible overlays between ODD and bully-victim patterns among our students may improve prevention and intervention for addressing bully-victim behavior within our schools. In fact, research also should consider exploring what techniques and skills would have the greatest success with students who are deemed to present as bully-victims. This information would be helpful to mental health therapists, educators, and parents alike. Furthermore, other research methods are strongly encouraged that can examine cross-situational behavior

patterns with may vacillate between aggression and victimization within a specified time-frame, as well as longitudinal studies of possible variations in bully-victim behaviors across time and developmental stages. I believe that research on these topics will lead to results that will influence social change in how we address the mental health, social, and educational needs of students with ODD, in general, and those who demonstrate both bullying and victimization in their interpersonal behaviors.

### **Summary and Implications**

This study has attempted to explore methods to study possible relationships between bully-victim behavior patterns and behavioral disorders, specifically, ODD. Results highlight several of the pitfalls in methodology for area of research. However, the study has continued to shine light on an important issue, understanding unique risk factors for students who exhibit bully-victim patterns. Behavioral disorders, such as ODD, may increase the risk of problems with social skills and adjustment for this group of students. By not recognizing these kinds of specific risk factors, we may be missing opportunities, both for prevention and intervention for students with these risks for aggression.

Increasing our understanding can contribute to social change in that schools and families can increase their ability to appropriately address bullying, which is a national problem that impacts our youth, families, school environments, and even the larger communities. Based on the process of conducting this study, I am even more convinced that students who show bully-victim patterns are not properly identified through formal investigations nor similar means to track patterns of aggression, and thus fall under the

radar for potential support and effective intervention. Currently, bully-victim behavior patterns can only be confirmed if a student had been deemed a bully and a victim in separate reports of incidents. Otherwise, as previously mentioned, it is very possible the student who is in fact engaged in bully-victim behavior patterns might be overlooked and not receive the most effective remediation and support. To provide more sensitive identification, stakeholders, including teachers, parents, staff, administrators, and policy-making boards, could benefit from appropriate training on the bully-victim pattern of aggression, including patterns of provocation that differ from the typical patterns of bullies or victims. Information also can be shared on social and emotional patterns that are more specific to bully-victims, and how these may overlap with behavioral disorders such as ODD but differ from CD. Further, schools can support the special needs of students who demonstrate bully-victim patterns, such as through mandating in-school counseling to provide strategies and skills for the student, as well as educating parents with respect to their influential role in support.

## References

- Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1987). Child/adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificity. *Psychological Bulletin, 101*, 213-232.
- Achenbach, T., & Rescorla, L. (2001). *The manual for the ASEBA School-Age Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, and Families.
- Alvarez, H. K., & Ollendick, T. H. (2003). Individual and psychosocial risk factors. In C. A. Essau (Ed.), *Conduct and oppositional defiant disorders: Epidemiology, risk factors, and treatment* (pp. 97-116). Mahwah, NJ: Lawrence Erlbaum Associates.
- American Psychiatric Association. (2001). *Diagnostic and statistical manual of mental disorders (4<sup>th</sup> ed.)*. Washington, D. C.: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5<sup>th</sup> ed.)*. Washington, D. C.: Author.
- Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology, 55*, 27-51.
- Angold, A., & Costello, E. J. (1996). Toward establishing an empirical basis for the diagnosis of oppositional defiant disorder, *Behavioral Adolescent Psychiatry, 35*(9), 1205-1212.
- Angold, A., Costello, E.J., & Erkanli, A. (1999). Comorbidity. *Journal of Child Psychology and Psychiatry, 40*(1), 57-87.

- Archer, J. (2004). Sex differences in aggression in real-world settings: A meta-analytic review. *Review of General Psychology, 8*(4), 291-322.
- Archer, J., & Coyne, S. M. (2005). An integrated review of indirect, rational, and social aggression. *Personality and Social Psychology Review, 9*(3), 212-230.
- Arseneault, L., Bowes, L., & Shakoor, S. (2010). Bullying victimization in youths and mental health problems: Much ado about nothing? *Psychological Medicine, 40*, 717-729.
- Arseneault, L. (2006). Bullying leaves mark on kids' psyches. *Science News, 170*(5), 77.
- Arseneault, L., Walsh, E., Trzesniewski, K., Newcombe, R., Caspi, A., & Moffitt, E. (2006). Bullying victimization uniquely contributes to adjustment problems in young children: A nationally representative cohort study. *Pediatrics, 118*, 130-138.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*, 1-26.
- Barkley, R. A. (1997). Behavioral inhibition, sustained attention, and executive functions: Constructing a unifying theory of ADHD. *Psychological Bulletin, 121*(1), 65-94.
- Batsche, G. M., & Knoff, H. M. (1994). Bullies and their victims: Understanding a pervasive problem in the schools. *School Psychology Review, 23*, 165-175.
- Beauchaine, T. P. (2001). Vagal tone, development, and Gray's motivational theory: Toward an integrated model of autonomous nervous system functioning in psychopathology. *Development and Psychopathology, 13*, 183-214.
- Behan, J. & Carr, A. (2000). Oppositional defiant disorder. In A. Carr (Ed.), *What works*



*with children and adolescents? A critical review of psychological interventions with children, adolescents, and their families* (p. 102-130). London: Routledge.

- Benedict, T., & Frances, G. (2012, October). Association between mental health disorders and bullying in the United States among children aged 6 to 17 years. In *2012 AAP National Conference and Exhibition*. American Academy of Pediatrics.
- Bentley, K. M., & Li, A. (1995). Bully and victim problems in elementary schools and students' Beliefs about aggression. *Canadian Journal of School Psychology, 11*, 153-165.
- Besag, V. (2006). *Understanding girls' friendship, fights and feuds: A practical approach to girls'bullying*. New York: Open University Press.
- Biederman, J., Newcorn, J., & Sprich, S. (1991). Comorbidity of attention deficit hyperactivity disorder with conduct, depressive, anxiety, and other disorders. *American Journal of Psychiatry, 148*(5), 564–577.
- Biederman, J., Wilens, T., Mick, E., et al. (1997). Is ADHD a risk for psychoactive substance use disorders? Findings from four-year prospective follow up study. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 21-29.
- Borg, M. G. (1998). The emotional reactions of school bullies and their victims. *Educational Psychology, 18*, 433-444.
- Boulton, M. J., & Underwood, K. (1992). Bully/victim problems among middle school children. *British Journal of Educational Psychology, 62*, 73-87.
- Boxer, P., Goldstein, S. E., Musher-Eizenman, D., Dubow, E. F., & Heretick, D. (2005).

- Developmental issues in school-based aggression prevention from a social-cognitive perspective. *The Journal of Primary Prevention*, 26(5), 383-400.
- Bradley, M. C., & Mandell, D. (2005). Oppositional defiant disorder: A systematic review of evidence of intervention effectiveness, *Journal of Experimental Criminology*, 1 (1), 343-365.
- Bradshaw, C. P., Sawyer, A. L., & O'Brennan, L. M. (2007). Bullying and peer victimization at school: Perceptual differences between students and school staff. *School Psychology Review*, 36(3), 361-382.
- Bradshaw, C. P., Sawyer, A. L., & O'Brennan, L.M. (2008). Examining variation in attitudes toward aggressive retaliation and perceptions of safety among, bullies, victims, and bully/victims. *Professional School Counseling*, 12(1), 10-21.
- Brame, R., Nagin, D. S., & Tremblay, R. E. (2001). Developmental trajectories of aggression. *Journal of Child and Adolescent Psychiatry*, 52, 503-512.
- Broidy, L. M., Nagin, D. S., Tremblay, R. E., et al. (2003). Developmental trajectories of childhood disruptive behaviors an adolescent delinquency: A six site, cross national study. *Developmental Psychology*, 39, 222-245.
- Brown, K., Atkins, M. S., Osborne, M. L., & Milnamow, M. (1996). A revised teacher rating scale for reactive and proactive aggression. *Journal of Abnormal Child Psychology*, 24(4), 473-480.
- Brown, J. R., Aalsma, M. C., & Ott, M. A. (2012). The experiences of parents who report youth bullying victimization to school officials. *Journal of Interpersonal Violence*, 28(3), 494-518.

- Bushman, A., & Huesmann, R. (2010). Aggression. In S. T. Fiske, & D. T. Gilbert. *Handbook of social psychology* (Chap. 23; pp. 833-863). See <http://www.rcgd.isr.umich.edu/aggr/articles/Huesmann/2010.Bushman&Huesmann.Aggression.HandbookSocial.pdf>
- Burton, K. A., Florell, D., & Gore, J. S. (2013). Differences in proactive and reactive aggression in traditional bullies and cyberbullies. *Journal of Aggression, Maltreatment & Trauma, 22*(3), 316-328.
- Bussing, R., Fernandez, M., Harwood, M., Hou, W., Garvan, C. W., Eyberg, S. M., & Swanson, J. M. (2008). Parent and teacher SNAP-IV ratings of attention deficit/hyperactivity disorder symptoms: Psychometric properties and normative ratings from a school district sample. *Assessment, 20*(10), 1-12.
- Campbell, M. A. (2005). Cyber bullying: An old problem in a new guise? *Australian Journal of Guidance and Counseling, 15*(1), 68-76.
- Camodeca, M., Goossens, F. A., Schuengel, C., & Meerum-Terwogt, M. (2003). Links between social information processing in middle childhood and involvement in bullying. *Aggressive Behavior, 29*, 116-127.
- Camodeca, M., & Goossens, F. A. (2005). Aggression, social cognitions, anger and sadness in bullies and victims. *Journal of Child Psychology and Psychiatry, 46*(2), 186-197.
- Card, N. A., Stucky, B. D., Sawalani, G. M., & Little, T. D. (2008). Direct and indirect

- aggression during childhood and adolescence: A meta-analytic review of gender differences, intercorrelations, and relations to maladjustment. *Child Development*, 79, 1185-1229.
- Carr, A. (2013). *The handbook of child and adolescent clinical psychology: A contextual approach*. New York: Routledge.
- Cassidy, T., & Taylor, L. (2005). Coping and psychological distress as a function of the bully victim dichotomy in older children. *Social Psychology of Education*, 8, 249-262.
- Causey, D. L., & Dubow, E. F. (1992). Development of self-report coping measure for elementary school children. *Journal of Clinical Child Psychology*, 21, 47-59.
- Center for Disease Control, National Center for Injury Prevention and Control (2012). Understanding bullying. Retrieved from: <http://www.cdc.gov/violenceprevention/pdf/bullyingfactsheet2012-a.pdf>.
- Cho, J. I., Hendrickson, J. M., & Mock, D. R. (2009). Bullying status and behavior patterns of preadolescents and adolescents with behavioral disorders. *Education and Treatment of Children*, 32(4), 655-671.
- Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology*, 18(4), 557.
- Cole, J. C. M., Cornell, D. G., & Sheras, P. (2006). Identification of school bullies by survey methods. *Professional School Counseling*, 9(4), 305-313.
- Coolidge, F. L., DenBoer, J. W., & Segal, D. L. (2004). Personality and

- neuropsychological correlates of bullying behavior. *Personality and Individual Differences*, 36, 1559-1569.
- Conners, K. C. (1997). *Conners' rating scales: Revised technical manual*. North Tonawanda, NY: Multi-Health Systems.
- Corder, G. W., & Foreman, D. I. (2009). Comparing more than two unrelated samples: The Kruskal-Wallis H-Test, *Nonparametric statistics for non-statisticians* (pp. 99-121). Wiley-Blackwell.
- Craig, W. M. (1998). The relationship among bullying, victimization, depression, anxiety, and aggression in elementary school children. *Personality and Individual Differences*, 24, 123-130.
- Craig, W. M., & Pepler, D. J. (1998). Observations of bullying and victimization in the school yard. *Canadian Journal of School Psychology*, 13(2), 41-59.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development*, 66, 710-722.
- Crick, N. R., & Dodge, K. A. (1996). Social information-processing mechanisms on reactive and proactive aggression. *Child Development*, 67, 993-1002.
- Crick, N. R. (1997). Engagement in gender normative versus nonnormative forms of aggression: Links to social-psychological adjustment. *Developmental psychology*, 33(4), 610.
- Crick, N. R., & Bigbee, M. A. (1998). Relational and overt forms of peer victimization: A multiformant approach. *Journal of Consulting and Clinical Psychology*, 66, 337-347.

- Dake, J. A., Price, J. H., & Telljohann, S. K. (2003). The nature and extent of bullying at school. *The Journal of School Health, 73*(5), 173-180.
- DeWall, C. N., Anderson, C. A., & Bushman, B. J. (2011). The general aggression model: theoretical extensions to violence. *Psychology of Violence, 1*(3), 245.
- Dodge, K. A. (1980). Social cognition and children's aggressive behavior. *Child Development, 51*, 620 – 635.
- Dodge, K. A., & Coie, J. D. (1987). Social information-processing factors in reactive and proactive aggression in children's playgroups. *Journal of Personality and Social Psychology, 53*, 1146-1158.
- Dodge, K. A., & Pettit, G. S. (2003). A biopsychosocial model of the development of chronic conduct problems in adolescence. *Developmental Psychology, 39*(2), 349-371.
- Dodge, K. A., Coie, J. D., & Lynam, D. (2006). Aggression and antisocial behavior in youth. In Eisenberg, W., Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Social, emotional, and personality development* (pp. 719-788). Hoboken, NJ: John Wiley.
- Dodge, K. A., Malone, P. S., Lansford, J. E., Sorbring, E., Skinner, A. T., Sombat, T., et al. (2014). Hostile attributional bias and aggressive behavior in global context. *Proceedings of the National Academy of Science, 112*(30), 9310-9315.
- Dulmus, C., Sowers, K., & Theriot, M. (2006). Prevalence and bullying experiences of victims and victims who become bullies (bully-victims) at rural schools. *Victims & Offenders, 1*, 15-31.

- Ebesutani, C., Bernstein, A., Martinez, J. L., Chorpita, B. F., & Weisz, J. R. (2011). The Youth Self Report: Applicability and validity across younger and older youths. *Journal of Clinical Child & Adolescent Psychology, 40*(2), 338-346. Retrieved from <http://www.wjh.harvard.edu/jweisz/pdfs/2011b.pdf>
- Egan, S., & Perry, D. (1998). Does low self-regard invite victimization? *Developmental Psychology, 34*, 299-309.
- Ellis, M. L., Weiss, B., & Lochman, J. E. (2009). Executive functions in children: Associations with aggressive behavior and appraisal processing. *Journal of Abnormal and Child Psychology, 37*(7), 945-956.
- Espelage, D. L., & Holt, M. K. (2013). Suicidal ideation and school bullying experiences after controlling for depression and delinquency. *Journal of Adolescent Health, 53*. Retrieved from: [http://www.ncdsv.org/images/JAH\\_Suicidal-ideation-and-school-bullying\\_7-2013.pdf](http://www.ncdsv.org/images/JAH_Suicidal-ideation-and-school-bullying_7-2013.pdf).
- Fanti, K. A., & Kimonis, E. R. (2013). Dimensions of juvenile psychopathy distinguish 'bullies,' 'bully-victims,' and 'victims.' *Psychology of Violence, 3*(4), 396-409.
- Faraone, S. V., Biederman, J., Mennin, D., Russell, R., & Tsuang, M. T. (1998). Familial subtypes of attention deficit hyperactivity disorder: A 4-year follow-up study of children from Antisocial-ADHD families. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 39*(7):1045–1053.
- Fekkes, M., Pijpers, F. I., Fredriks, A. M., Vogels, T., & Verloove-Vanhorick, S. P.

- (2005). Do bullied children get ill, or do ill children get bullied? A prospective cohort study on the relationship between bullying and health-related symptoms. *Pediatrics, 117*(5), 1568-1574.
- Floyd, N. M. (1985). "Pick on somebody your own size!" Controlling victimization. *Pointer, 29*(2), 9-17.
- Frankel, F., & Feinberg, D. (2002). Social problems associated with ADHD vs. ODD in children referred for friendship problems, *Child Psychiatry and Human Development, 33*(2), 125-146.
- Galen, B. R., & Underwood, M. K. (1997). A developmental investigation of social aggression among children. *Developmental Psychology, 33*(4), 589-600.
- Garandeau, C. F., Wilson, T., & Rodkin, P. C. (2010). The popularity of elementary school bullies in gender and racial context. In S. R. Jimerson, S. M. Swearer, & D. L. Espelage (Eds.), *Handbook of bullying in schools: An international perspective* (pp. 119-136). New York: Routledge.
- Garpelin, A. (2004). Accepted or rejected in school. *European Educational Research Journal, 3*(4), 729-742.
- Ghosh, S., & Sinha, M. (2012). ADHD, ODD, and CD: Do they belong to a common psychopathological spectrum? A case series. *Case Reports in Psychiatry, 1-4*.
- Gini, G. (2006). Bullying as a social process: The role of group membership in students' perception of inter-group aggression at school. *Journal of School Psychology, 44*, 51-65.
- Gini, G., & Pozzoli, T. (2013). Bullied children and psychosomatic problems: A meta-



- analysis. *Pediatrics*. 132(4), 720-729. Retrieved from: <http://pediatrics.aappublications.org/content/early/2013/09/11/peds.2013-0614>.
- Greene, R. W., Biederman, J., Zerwas, S., Monuteaux, M. C., Goring, J. C., & Faraone, S. V. (2002). Psychiatric comorbidity, family dysfunction, and social impairment in referred youth with oppositional defiant disorder. *American Journal of Psychiatry*, 159, 1214-1224.
- Gropper, N., & Froschl, M. (2000). The role of gender in young children's teasing and bullying behavior. *Equity & Excellence in Education*, 33(1), 48-56.
- Hair, P., & Hampson, S. E. (2005). The role of impulsivity in predicting maladaptive behavior among female students. *Personality and Individual Differences*, 40(5), 943-952.
- Hamburger, M. E., Basile, K. C., & Vivolo, A. M. (2011). *Measuring bullying, victimization, perpetration, and bystander experiences: A compendium of assessment tools*. Atlanta, GA: Center for Disease Control and Prevention, National Center for Injury Prevention and Control, 2011. Retrieved from <http://www.cdc.gov/violenceprevention/pdf/bullyCompendiumbk-a.pdf>
- Harcourt, S., Jasperse, M., & Green, V. A. (2014, June). "We were sad and we were angry": A systematic review of parents' perspectives on bullying. In *Child & Youth Care Forum* (Vol. 43, No. 3, pp. 373-391). Springer US.
- Hawker, D. S. J., & Boulton, M. J. (2000). Twenty years' research on peer victimization

- and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *41*, 441-455.
- Hodges, E. V., & Perry, D. G. (1999). Personal and interpersonal antecedents and consequences of victimization by peers. *Journal of Personality and Social Psychology*, *76*, 677-685.
- Holt, M. K., & Espelage, D. L. (2006). Perceived social support among bullies, victims, and bully-victims. *Journal of Youth and Adolescence*, *36*(8), 984-994. doi
- Huesmann, L. R. (1988) An information processing model for the development of aggression. *Aggressive Behavior*, *14*, 13-24.
- Huesmann, L. R., & Guerra, N. G. (1997). Children's normative beliefs about aggression and aggressive behavior. *Journal of Personality and Social Psychology*, *72*, 408-419.
- Hussein, M. H. (2013). The social and emotional skills of bullies, victims, and bully-victims of Egyptian primary school children. *International Journal of Psychology*, *48*(5), 910-921.
- Hutter, M., Kutzner, F., & Fiedler, K. (2014). What is learned from repeating pairings? On the scope and generalizability of evaluative conditioning. *Journal of Experimental Psychology: General*, *143*(2), 631-643.
- Jacobsen, K. E., & Bauman, S. (2007). Bullying in schools: School counselors' responses to three types of bullying incidents. *Professional School Counseling*, *11*, 1-9.
- Juvonen, J. & Graham, S. (2013). Bullying in schools: The power of bullies and the

plight of victims *Annual Review of Psychology*, 65, 159-185.

- Kartal, H., & Bilgin, A. (2009). Bullying and school climate from the aspects of the students and teachers. *Eurasian Journal of Educational Research*, 36, 209-226.
- Kaltiala-Heino, R., Rimpela, M., Rantanen, P., & Rimpela, A. (2000). Bullying at school: An indicator of adolescents at risk for mental disorder. *Journal of Adolescence*, 23, 661-674.
- Kim-Cohen, J., Arseneault, L., Caspi, A., Tomas, M. P., Taylor, A., & Moffitt, T. E. (2005). Validity of DSM-IV conduct disorder in 4 ½- 5-year-old children: A longitudinal epidemiological study. *The American Journal of Psychiatry*, 162(6), 1108-1117.
- Klomek, A. B., Sourander, A., Niemelä, S., Kumpulainen, K., Piha, J., Tamminen, T., & Gould, M. S. (2009). Childhood bullying behaviors as a risk for suicide attempts and completed suicides: a population-based birth cohort study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 48(3), 254-261.
- Kochenderfer-Ladd, B., & Skinner, K. (2002). Children's coping strategies: Moderators of the effects of peer victimization? *Developmental Psychology*, 38(2), 267-278.
- Kokkinos, C. M., & Panayiotou, G. (2004). Predicting bullying and victimization among early adolescents: Associations with disruptive behavior disorder. *Aggressive Behavior*, 30(1), 520-533.
- Kumpulainen, K., Rasanen, E., & Puura, K. (2001). Psychiatric disorders and the use of mental health services among children involved in bullying. *Aggressive Behavior*, 27, 102-110.

- Kyriakides, L., Kaloyirou, C., & Lindsay, G. (2006). An analysis of the revised Olweus bully/victim questionnaire using the Rasch measurement model. *British Journal of Educational Psychology, 76*, 781-801.
- Ladd, G. W., & Kochenderfer-Ladd, B. (2001). Parent-report victimization scale [Database record]. Retrieved from PsycTESTS. doi:10.1037/t02446-000
- LaFontana, K. M., & Cillessen, A. H. (2002). Children's perceptions of popular and unpopular peers: a multimethod assessment. *Developmental Psychology, 38*(5), 635.
- Lease, A. M., Kennedy, C. A., & Axelrod, J. L. (2002). Children's social constructions of popularity. *Social Development, 11*(1), 87-109.
- Lereya, S. T., Copeland, W. E., Zammit, S., & Wolke, D. (2015). Bully/victims: a longitudinal, population-based cohort study of their mental health. *European Child & Adolescent Psychiatry, 24*(12), 1461-1471.
- Lewis, R. M., Petch, V., Wilson, N., Fox, S., & Craig, C. E. (2014). Understanding conduct disorder: The ways in which mothers attempt to make sense of their children's behavior. *Clinical Child Psychology and Psychiatry, 20*(4), 570-584.
- Limber, S. P., & Sampson, R. (2003). Parent Questionnaire: Perceptions of bullying.
- Limber, S. P., Flerx, V. C., Mullin, N. L., Riese, J., & Snyder, M. (2008). Bullying prevention program coordinating committee notebook. Olweus bullying prevention group. Revised 2010. Center City, MN: Hazeldon Foundation.
- Loeber, R., Burke, J. D., Lahey, B. B., Winters, A., & Zera, M. (2000). Oppositional

- defiant and conduct disorder: A review of the past 10 years, part 1. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39, 1468-1484.
- Lohre, A. (2012). The impact of loneliness on self-rated health symptoms among victimized school children. *Child Adolescent Psychiatry Mental Health*, 6(1), 20-20.
- Lowenstein, L. F. (1978). Who is the bully? *Bulletin of the British Psychological Society*, 31, 147-149.
- Maag, J. W., & Katsiyannis, A. (2012). Bullying and students with disabilities: Legal and practice considerations. *Behavioral Disorders*, 37(2), 78-86.
- MacKenzie, E. P. (2007). Improving treatment outcome for oppositional defiant disorder in young children, *Journal of Early and Intensive Behavior Intervention*, 4(2), 500-510.
- Maring, E. F. & Koblinsky, S. A. (2013). Teachers' challenges, strategies, and support needs in schools affected by community violence: a qualitative study. *Journal of school health*, 83(6), 379-388.
- Mattys, W., Cuperus, J. M., & VanEngeland, H. (1999). Deficient social problem-solving in *Journal of American Academy of Child and Adolescent Psychiatry*, 38, 311-321.
- Maughan, B., Rowe, R., Messer, J., Goodman, R., & Meltzer, H. (2004). Conduct disorder and oppositional defiant disorder in a national sample: developmental epidemiology. *Journal of Child Psychology and Psychiatry*, 45(3), 609-621.
- McKinney, C., & Renk, K. (2007). Emerging research and theory in the etiology of

oppositional defiant disorder: Current concerns and future directions.

*International Journal of Behavioral Consultation and Therapy*, 3(3), 349-370.

Mertler, C. A., & Vannatta, R. A. (2005). *Advanced and multivariate statistical methods: Practical application and interpretation* (3<sup>rd</sup> ed.). Glendale, CA: Pyrczak Publishing.

Mertler, C. A., & Charles, C. M. (2010). *Introduction to educational research*. (7<sup>th</sup> Ed.). Pearson.

Menesini, E., Eslea, M., Smith, P. K., Genta, M. L., Giannetti, E., Fonzi, A., & Costabile, A. (1997). Cross-national comparison of children's attitudes towards bully/victim problems in school. *Aggressive Behavior*, 23(4), 245-257.

Meyer, J. P., & Seaman, M. A. (2013). A comparison of the exact Kruskal-Wallis distribution to asymptotic approximations for all sample sizes up to 105. *The Journal of Experimental Education*, 81(2), 139-156.

Miller, J. L., Vaillancourt, T., & Boyle, M. H. (2008). Examining the heterotypic continuity of aggression using teacher reports: Results from a national Canadian study. *Social Development*, 18, 164-180.

Munkvold, L., Lundervold, A., Lie, S. A., & Manger, T. (2009). Should there be separate parent and teacher-based categories of ODD? Evidence from a general population. *The Journal of Child Psychology and Psychiatry*, 50(10), 1264-1272.

Mynard, H., & Joseph, S. (1997). Bully-victim problems and their association with Eysenck's personality dimensions in 8 to 13 year-olds. *British Journal of Educational Psychology*, 67, 51-54.

- O'Brennan, L. M., Bradshaw, C. P., & Sawyer, A. L. (2008). Examining developmental differences in the social-emotional problems among frequent bullies, victims, and bully/victims. *Psychology in the Schools, 46*(2), 100-115.
- O'Moore, M., & Kirkham, C. (2001). Self-esteem and its relationship to bullying behavior. *Aggressive Behavior, 27*(4), 269-283.
- Office of Justice Programs (October 2011). Retrieved September 2, 2013 from [https://ojp.gov/newsroom/factsheets/ojpfs\\_bullying.html](https://ojp.gov/newsroom/factsheets/ojpfs_bullying.html)
- Olweus, D. (1978). *Aggression in schools: Bullies and whipping boys*. Washington D. C.: Hemisphere.
- Olweus, D. (1979). Stability of aggressive reaction patterns in males: A review. *Psychological Bulletin, 86*, 852-875.
- Olweus, D. (1991). Bully/target problems among school children: Basic facts and effects of school-based intervention program. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 411-448). Hillsdale, NJ: Laurence Erlbaum.
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Oxford: Blackwell.
- Olweus, D. (1996). Bullying at school: Knowledge base and an effective intervention program. *Annals of the New York Academy of Science, 794*, 265-276.
- Olafsen, R. N., & Viemero, V. (2000). Bully/victim problems and coping with stress in school among 10 to 12 year old pupils in Åland, Finland. *Aggressive Behavior, 26*, 57-65.

- Ostrov, J. M., Godleski, S. A. (2010). Toward an integrated gender-linked model of aggression subtypes in early and middle childhood. *Psychology Review, 117*(1), 233-42.
- Pagliocca, P. M., Limber, S. P., & Hashima, P. (2007). Evaluation report for the Chula Vista Olweus Bullying Prevention Program. Final prepared for the Chula Vista (CA) Police Department.
- Parker, J., & Asher, S. R. (1987). Peer acceptance and later personal adjustment: Are low-accepted children "at risk"? *Psychological Bulletin, 102*, 357-389.
- Parkhurst, J. T., & Hopmeyer, A. (1998). Sociometric popularity and peer-perceived popularity two distinct dimensions of peer status. *The Journal of Early Adolescence, 18*(2), 125-144.
- Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys*. Eugene, OR: Castalia.
- Pellegrini, A. D., Bartini, M., & Brooks, F. (1999). School bullies, victims and aggressive victims: Factors relating to group affiliation and victimization in early adolescence. *Journal of Educational Psychology, 91*, 216-24.
- Pellegrini, A. D., Long, J. D., Solberg, D., Roseth, C., Dupuis, D., Bohn, C., & Hickey, M. (2010). Bullying and social status during school transitions. In S. R. Jimerson, S. M. Swearer, & D. L. Espelage (Eds.), *Handbook of bullying in schools: An international perspective* (pp. 199-210). New York: Routledge/Taylor & Francis Group.
- Pepler, D., Jiang, D., Craig, W., & Connolly, J. (2008). Developmental trajectories of



- bullying and associated factors. *Child Development*, 79(2), 325-338.
- Perry, D. G., Kusel, S. J., & Perry, L. C. (1988). Victims of peer aggression. *Developmental Psychology*, 24, 807-814.
- Petrosino, A., Guckenburg, S., DeVoe, J., & Hanson, T., Institute of Education Sciences, (2010). *What characteristics of bullying, bullying victims, and schools are associated with increased reporting of bullying to school officials?* Washington, D.C.: National Center for Education Evaluation and Regional Assistance.  
Retrieved  
from: [http://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL\\_2010092\\_sum.pdf](http://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL_2010092_sum.pdf)
- Pollastri, A. R., Cardemil, E. V., & O'Donnell, E. H. (2009). Self-esteem in pure bullies and bully/victims: A longitudinal analysis. *Journal of Interpersonal violence*, 25(8), 1489-1502.
- Poulin, F., & Boivin, M. (2000). Reactive and proactive aggression: evidence of a two-factor model. *Psychological Assessment*, 12(2), 115.
- Price, J. M., & Dodge, K. A. (1989). Reactive and proactive aggression in childhood: Relations to peer status and social context dimensions. *Journal of Abnormal Child Psychology*, 17, 455-471.
- Prinstein, M. J., Boergers, J., & Vernberg, E. M. (2001). Overt and relational aggression in adolescents: Social-psychological adjustment of aggressors and victims. *Journal of Clinical Child Psychology*, 30(4), 479-491.
- Rey, J. M., & Walter, G. (1999). Oppositional defiant disorder. In R. L. Hendren

- (Ed.), *Review of psychiatry series. Disruptive behavior disorders in children and adolescents, Vol.18, 2* (pp. 99-132). Arlington, VA: American Psychiatric Association.
- Rigby, K., & Slee, P. T. (1993). Dimensions of interpersonal relating among Australian school children: Implications for psychological well-being. *Journal of Social Psychology, 133*, 33-42.
- Rigby, K. (1993). School children's perceptions of their families and parents as a function of peer relations. *The Journal of Genetic Psychology, 154*(4), 501-513.
- Rigby, K. (1994). Psychosocial functioning in families of Australian adolescent schoolchildren involved in bully/victim problems. *Journal of Family Therapy, 16*, 173-187.
- Rodkin, P. C., Farmer, T. W., Pearl, R., & Van Acker, R. (2000). Heterogeneity of popular boys: Antisocial and prosocial configurations. *Developmental Psychology, 36*(1), 14.
- Rose, A. J., Swenson, L. P., & Waller, E. M. (2004). Overt and relational aggression and perceived popularity: Developmental differences in concurrent and prospective relations. *Developmental Psychology, 40*(3), 378.
- Rowe, R., Maughan, B., Costello, J. E., & Angold, A. (2005). Defining oppositional defiant disorder. *Journal of Child Psychology and Psychiatry, 46*(12)1309-1316.
- Salmivalli, C., Karhunen, J., & Lagerspetz, K. M. J. (1996). How do the victims respond to bullying? *Aggressive Behavior, 22*, 99-109.
- Salmivalli, C., & Nieminen, E. (2002). Proactive and reactive aggression among school

- bullies, victims, and bully-victims. *Aggressive Behavior*, 28, 30-44.
- Schultze-Krumbholz, A., Jakel, A., Schultze, M., & Scheithauer, H. (2012). Emotional and behavioral problems in the context of cyberbullying: A longitudinal study among German adolescents. *Emotional and Behavioral Difficulties*, 17(4), 329-345.
- Schwartz, D., Dodge, K. A., Pettit, G. S., & Bates, J. E. (2007). The early socialization of aggressive victims of bullying. *Child Development*, 68, 665-675.
- Sentse, M., Kretschmer, T., & Salmivalli, C. (2015). The longitudinal interplay between bullying, victimization, and social status: Age-related and gender differences. *Social Development*. 24(3), 659-677.
- Sergeant, J. A., Geurts, H., & Oosterlaan, J. (2002). How specific is a deficit of executive functioning for attention-deficit/hyperactivity disorder? *Behavioral Brain Research*, 130(1), 3-28.
- Silverman, W., La Greca, A. M., & Wasserstein, S. (1995). What do children worry about? Worries and their relations to anxiety. *Child Development*, 66, 671-686.
- Simonoff, E., Pickles, A., Meyer, J. M., Silberg, J. L., Maes, H. H., & Loeber, R., et al. (1997). The Virginia Study of Adolescent Behavioral Development. Influences of age, sex, and impairment on rates of disorder. *Archives of General Psychiatry*, 54, 801-808.
- Singh, K. (2007). Quantitative social research methods. New Delhi, India: Sage Publications.
- Slee, P. T. (1994). Situational and interpersonal correlates of anxiety associated with peer

- victimization. *Child Psychiatry and Human Development*, 25, 97-107.
- Smith, P. K., Ananiadou, K., & Cowie, H. (2003). Interventions to reduce school bullying. *The Canadian Journal of Psychiatry*, 48(9), 591-599.
- Smith, P. K., Talamelli, L., Cowie, H., Naylor, P., & Chauhan, P. (2004). Profiles of non-victims, escaped victims, continuing victims and new victims of school bullying. *British Journal of Educational Psychology*, 74, 565-81.
- Smokowski, P. R., & Kopasz, K. H. (2005). Bullying in school: An overview of types, effects, family characteristics, and intervention strategies. *National Association of Social Workers*, 27, 101-110.
- Smorti, A., Menesini, E., & Smith, P. K. (2003). Parents' definitions of children's bullying in a five-country comparison. *Journal of Cross Cultural Psychology*, 43(4), 417-432.
- Solberg, M., & Olweus, D. (2003). Prevalence estimation of school bullying with the Olweus/Victim Questionnaire. *Aggressive Behavior*, 29, 239-268.
- Solomon, B. S., Bradshaw, C. P., Wright, J., & Cheng, T. L. (2008). Youth and parental attitudes toward fighting. *Journal of Interpersonal Violence*, 23, 544-560.
- Steiner, H., Rensing, L., & Work Group on Quality Issues (2007). Practice parameter for the assessment and treatment of children and adolescents with oppositional defiant disorder. *Journal of the American Academy of Adolescent Psychiatry*, 46(1), 126-141.
- Sticca, F., & Perren, S. (2012). Is cyberbullying worse than traditional bullying?

- Examining the differential roles of median, publicity, and anonymity for the perceived severity of bullying. *Journal of Youth Adolescents*, 45(5), 734-750.
- Swart, E., & Bredekamp, J. (2009). Non-physical bullying: Exploring the perspectives of grade 5 girls. *South African Journal of Education*, 29, 405-425.
- Swearer, S. M., & Cary, P. T. (2003). Perceptions and attitudes toward bullying in middle school youth: A developmental examination across the bully/victim continuum. *Journal of Applied School Psychology*, 19(2), 63-79.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Computer-assisted research design and analysis*. Boston, MA: Allyn & Bacon.
- Tavakol, M., & Dennick, R. (2012). Post-examination interpretation of objective test data: Monitoring and improving the quality of high-stakes examinations- a commentary on two AMEE guides. *Medical Teacher*, 34(3), 245-248.
- Terranova, A. M. (2009). Factors that influence children's responses to peer victimization. *Child Youth Care Forum*, 38, 253-271.
- Thornberg, R. (2015). The social dynamics of school bullying: The necessary dialogue between the blind man around the elephant and the possible meeting point at the social-ecological square. *Confero: Essays on Education, Philosophy and Politics*, 3(1), 161-203.
- Tobin, R., Schwartz, D., Gorman, A. H., & Abou-Ezzeddine, T. (2005). Social-cognitive and behavioral attributes of aggressive victims of bullying. *Applied Developmental Psychology*, 26, 329-346.
- Tolan, P. H., Guerra, N. G., & Kendall, P. C. (1995). A developmental-ecological

- perspective on antisocial behavior in children and adolescents: Toward a unified risk and intervention framework. *Journal of Consulting and Clinical Psychology*, 63, 579-584.
- Troy, M., & Sroufe, L. A. (1987). Victimization among preschoolers: Role of attachment relationship history. *Journal of the American Academy of Child and Adolescent Psychiatry*, 26, 166-172.
- Underwood, M. K., & Rosen, L. H. (2011). Gender and bullying: Moving beyond mean differences to consider conceptions of bullying, processes by which bullying unfolds, and cyberbullying. In D. L. Espelage & S. M. Swearer (Eds.) *Bullying in North American schools* 2<sup>nd</sup> Ed. (pp. 1-24). New York: Routledge/Taylor & Francis Group.
- Unnever, J. D. (2005). Bullies, aggressive victims, and victims: Are they distinct groups? *Aggressive Behavior*, 31, 153-171.
- Van Der Wal, M. F., De Wit, C. A. M., & Hirasig, R. A. (2003). Psychosocial health among young victims and offenders of direct and indirect bullying. *Pediatrics*, 111(6), 1312-1318.
- Vernberg, E. M., Jacobs, A. K., & Hershberger, S. L. (1999). Peer victimization and attitudes about violence during early adolescence. *Journal of Clinical Child Psychology*, 28(3), 386-395.
- Vitaro, F., Gendreau, P. L., Tremblay, R. E., & Oligny, P. (1998). Reactive and proactive aggression differentially predict later conduct problems. *Journal of Child Psychology and Psychiatry*, 39(03), 377-385.

Wang, J., Iannotti, R. J., & Nansel, T. R. (2009). School bullying among US adolescents: Physical, verbal, relational and cyber. *Journal of Adolescent Health, 45*(4), 368-375.

## Appendix A: Teacher's Student Familiarity Questionnaire

Student Name: \_\_\_\_\_

Identification Code: \_\_\_\_\_

*Place an "X" next to the response that most represents you.***1) How many months have you or did you know the student?** 1-2 months  3-4 months  5-6 months  7-8 months  9-12 months**2) Before having this student start your class in the beginning of the school year, had you be provided any information about the student?** YES  NO  Don't Recall**a) If Yes, what kind of information?****b) Did you have any information about the student's relationships with or behavior toward other students?  YES  NO****3) Do you have a personal relationship (e.g., acquaintance, friend) with the student's parent(s)?  YES  NO****4) Did you have any information about the students' performance in other classes?** YES  NO  Don't Recall