

THE EFFECTS OF A BULLYING PREVENTION PROGRAM AND A POSITIVE
BEHAVIOR PROGRAM ON THE SELF-PERCEPTIONS OF BUILDING POSITIVE
RELATIONSHIPS AMONG MIDDLE SCHOOL STUDENTS

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

The harmful effects of bullying are a rising concern in schools, and officials are implementing bullying prevention programs to strengthen peer relationships and build social equity within school communities. The purpose of this causal-comparative study was to examine the effectiveness of the Olweus Bullying Prevention Program and Positive Behavior Intervention and Supports to see which program had a more significant impact on self-perception of building positive relationships among middle school students. With each program offering different bullying prevention strategies, it is important that educational leaders fully analyze the effectiveness of each program so the needs of the school can be met. Through examining the ideals of Adams's equity theory and how people view social relationships, the following research question was developed: Is there a difference in the perceptions of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire (PRQ)? Two hundred forty seventh-grade students from two rural middle schools in the central part of North Carolina participated in this study. One hundred twenty students from each school were selected to complete the PRQ for children based on the expectation that they had been exposed to their programs for one full year. Due to the lack of normality in student reporting, student responses were compared by the Mann-Whitney U test. Based on the results of this nonparametric test, there is no evidence that the distribution of scores was different between schools, neither for the whole population nor for females or males considered separately. The lack of normality discovered in the findings shows this study cannot be generalized across all middle school settings, which suggests more research in rural middle schools across various districts and states needs to be conducted.

Keywords: bullying prevention, social equity, PRQ, peer relationships

Table of Contents

ABSTRACT 3

List of Tables 7

List of Figures 8

List of Abbreviations 9

CHAPTER ONE: INTRODUCTION 10

 Overview 10

 Background 10

 Problem Statement 14

 Purpose Statement 15

 Significance of the Study 16

 Research Question 18

 Definitions 18

CHAPTER TWO: REVIEW OF THE LITERATURE 20

 Overview 20

 Theoretical Framework 20

 Related Literature 22

 Definition of Bullying 22

 Consequences of Bullying 25

 Social Equity 27

 School Vision 29

 Bullying Prevention Programs 33

 Effects of Bullying Prevention Programs 39

| | |
|---|----|
| Olweus Bullying Prevention Program | 41 |
| Positive Behavior Intervention and Supports | 44 |
| School Environment and Student Achievement | 46 |
| Summary | 49 |
| CHAPTER THREE: METHODS | 50 |
| Overview | 50 |
| Design | 50 |
| Research Question | 51 |
| Null Hypotheses | 51 |
| Participants and Setting | 52 |
| Instrumentation | 55 |
| Procedures | 57 |
| Data Analysis | 59 |
| CHAPTER FOUR: FINDINGS | 61 |
| Overview | 61 |
| Research Question | 61 |
| Null Hypotheses | 61 |
| Descriptive Statistics | 62 |
| Results | 63 |
| Equal Population Means t-Test | 65 |
| Non-Parametric Tests for Equivalent Distributions | 66 |
| Hypotheses | 67 |
| CHAPTER FIVE: CONCLUSIONS | 68 |

| | |
|--|----|
| Overview..... | 68 |
| Discussion..... | 68 |
| Implications..... | 70 |
| Limitations | 71 |
| Recommendations for Future Research..... | 72 |
| REFERENCES | 73 |
| APPENDIX A..... | 81 |
| APPENDIX B..... | 82 |
| APPENDIX C..... | 83 |
| APPENDIX D..... | 84 |
| APPENDIX E..... | 86 |

List of Tables

| | |
|---|----|
| Table 1. Descriptive Statistics for the Self-Perception of Building Positive Relationships (SPBPR) Scale by School and by School x Gender | 63 |
| Table 2. Kolmogorov-Smirnov Tests for Normal Distribution of Self-Perception of Building Positive Relationships (SPBPR) Scale by School and by School x Gender..... | 65 |
| Table 3. Differences, Degrees of Freedom, <i>t</i> Values, <i>p</i> Values, Effect Sizes, and Power for Group Comparisons on Self-Perception of Building Positive Relationships (SPBPR)..... | 66 |
| Table 4. The p-Values for Non-Parametric Tests Comparing Distributions of Self-Perception of Building Positive Relationships (SPBPR) Across Schools by School and School x Gender..... | 67 |

List of Figures

| | |
|---|----|
| Figure 1. Distribution of SPBPR scores by school | 63 |
| Figure 2. Distribution of SPBPR scores by school x gender | 64 |
| Figure 3. Analysis of assumptions for <i>t</i> -test | 64 |

List of Abbreviations

Institutional Review Board (IRB)

Olweus Bullying Prevention Program (OBPP)

Peer Relations Assessment Questionnaire – Revised (PRAQ-R)

Peer Relations Questionnaire (PRQ)

Positive Behavior Intervention and Supports (PBIS)

Self-Perception of Building Positive Relationships (SPBPR)

CHAPTER ONE: INTRODUCTION

Overview

The introduction covers the basic terminology of bullying, the harmful effects of bullying, and the reason the study described in this chapter was conducted. Adams's equity theory (1963) is introduced as the theoretical framework, and details are explained to why the Olweus Bullying Prevention Program (OBPP) and Positive Behavior Intervention and Supports (PBIS) were chosen as the programs to study in bridging gaps on student self-perception of building positive relationships.

Background

Bullying incidents have potential to cause serious harm to students, resulting in issues such as absenteeism, suicide, and disengagement from academic performance; all of these issues have all been linked to bullying (Graham, 2016). Each year, nearly 160,000 students purposely miss school and 4,000 teens commit suicide because of bullying situations happening at school that have taken students past their emotional limits (Langan, 2011). Many of these bullying consequences have occurred because students feel inadequate at school or less than their fellow peers (Langan, 2011). The term *bullying* has many interpretations in schools today, as it occurs more frequently for students both in school and out. Graham (2016) described bullying as “physical, verbal, or psychological abuse of victims by perpetrators who intend to cause them harm” (p. 137); there is also a power imbalance between victim and perpetrator. Due to increased use of technology and social media, students of the 21st century often use technological devices to facilitate their bullying, which makes it much more difficult for school officials to prevent bullying situations (Weber & Pelfrey, 2014). Regardless of the method,

bullying poses harmful effects for students and overall school climate, which in turn influences student achievement, especially students of middle school age (Ponzo, 2013).

Victims of bullying situations are also likely to experience long-term effects that can impact their lives, even through their years as adults (Lencl & Matuga, 2010). Lencl and Matuga (2010) discovered middle school is a delicate time for students, and students are impressionable during these school years. Students' impressionability and volatility at this age further supports the reasoning for choosing a sample of middle school students in examining the effects of bullying prevention programs on student self-perception of building positive relationships.

Serious consequences of bullying exist in schools, and students' understanding of prevention and intervention strategies may provide them the best opportunity possible to counter such implicating issues. Kennedy, Russom, and Kevorkian (2012) demonstrated in their study that educators feel strongly about implementing bullying prevention strategies and programs and that teachers play instrumental roles in enlightening students on how to handle future bullying situations. According to the Kennedy et al. (2012) study, educators know how important these programs are to students, and school administrators must think methodically in choosing a program that best meets the needs of their schools. Educational leaders must carefully analyze program components and think about drawbacks to implementation of particular programs such as high cost or lack of ability to fully implement all components of a certain program. Both the OBPP and PBIS have various components and differ in methods of implementation.

Bullying mainly originates from imbalances of power among peer social groups and how people perceive these relationships (Graham, 2016). Adams's equity theory, developed in 1963 by John Stacy Adams, postulates that people are content and happy when they receive what they expect from peer relationships. When they receive more than expected from these relationships,

they have feelings of guilt and shame; however, they have feelings of anger and resentment toward their peers when they receive far less (Adams, 1963). These feelings of being less than their peers either socially, physically, or emotionally create power imbalances and feelings of animosity, which in turn leads to bullying incidents and the consequences that follow (Lencl & Matuga, 2010). Building a culture of positive student peer relationships is a contributing factor to establishing a safe school climate (Klein, Cornell, & Konold, 2012). Klein et al. (2012) stated, “Several studies have concluded that positive student perceptions of school climate are associated with less substance use and related risk behavior” (p. 155). For students to fully achieve in school, they must feel safe, and bullying prevention programs are an effective means to providing students with this sense of security (Olweus & Limber, 2007). There are many programs to choose from which foster effective results; however, the OBPP and PBIS both promote the importance of building positive relationships and the need for students to eliminate social barriers (Olweus & Limber, 2010; Reynolds, Irwin, & Aglozzine, 2009).

The OBPP is one of the many programs used to prevent bullying situations and provide students with the tools necessary to intervene effectively when bullying incidents do occur. Olweus has 35 years of researched-based practices that are used to reduce bullying incidents by 20–70% (Beckman & Svensson, 2015). Schools using this program have also documented the positive impact the program has made on school social climate and antisocial behavior exhibited by students. The OBPP is focused on reducing bullying behaviors in order to strengthen peer relationships (Beckman, & Svensson, 2015), which is the reason the OBPP was selected for this study.

PBIS is another effective bullying prevention program with a school-based prevention approach. The program “aims to promote changes in staff behavior in order to positively impact

student outcomes such as student discipline, behavior, and academic outcomes” (Pas & Bradshaw, 2012, p. 419). Pas and Bradshaw (2012) also reported teachers from PBIS schools rated their students as needing fewer social support services and having fewer issues with bullying, rejection, and aggressive behavior. The results indicated PBIS directly impacts building positive relationships among peers in school (Pas & Bradshaw, 2012), which further explains why PBIS was used in this current study. The evidence from both programs shows that implementing bullying prevention programs is instrumental in establishing a safe environment for students where they can learn, grow, and achieve their maximum potential.

Adams’s (1963) equity theory was used to study relationships in the workplace and the value people place on relationships in order to feel content and happy; feelings of happiness create a more pleasant and efficient work environment. This theory can be applied to middle school students and their desire to feel equitable in their peer groups in order to fully achieve in school. If they feel an imbalance of power in their relationships, they will develop feelings of anger and animosity towards others (Hatfield, Salmon, & Rapson, 2011), which is an originating factor of bullying and bully/victim behaviors (Peters, van den Bos, & Karremans, 2008). To help students build stronger peer relationships and reduce imbalances of power, bullying prevention programs are needed in schools (Olweus & Limber, 2010). Determining the program, the OBPP or PBIS, that has a more significant impact on building student self-perception of building positive relationships is important for educational administrators as they work to improve their school climate and select a program that best meets their needs. In the school district that contains the two middle schools analyzed in this study, principals have the flexibility to select the program that best fits their school culture and budget.

What makes this study unique is that OBPP was compared to PBIS in order to see the effects each program had on student self-perception of building positive relationships, since both programs have components that stress the importance of peer relationships. The results found in this study provide useful information that can help school leaders make conscientious decisions on which program is a better fit for their schools. Both programs are supported by numerous studies that yield information pertinent to the positive effects the programs have on reducing bullying behaviors; however, it has been difficult to locate literature that compares OBPP to PBIS on the effects the programs have on student self-perception of building positive relationships. It is comparing one program to another that helps determine which program has a greater impact on student perception of peer relationships. This is an important issue for the school district in this study due to the impact student perception of peer relationships has on student achievement (Klein et al., 2012).

Problem Statement

There is plentiful evidence that indicates bullying in middle schools has severe implications for students that can have drastic effects to how students view school, their own personal lives, and current and future peer relationships (Graham, 2016). There is also relevant research that supports the idea that implementing bullying prevention programs has positive effects on reducing bullying in schools; however, there are mixed and inconsistent results on success of anti-bullying programs (Jones & Augustine, 2015). In order to accurately gauge program effectiveness, Jones and Augustine (2015) mentioned “it is imperative to annually assess the effectiveness of the program” (p. 81).

There is a gap in educational literature that annually compares these two programs in areas of effectiveness on student self-perception of building positive relationships and the

influence each program has on middle school students in comparison. The OBPP and PBIS are both known for strengthening peer relationships and reducing social barriers; it is only a matter of selecting which program is more efficient and effective for individual schools. The problem is educational administrators need to know which program is a good fit for their particular school since each school community is different. Jones and Augustine (2015) stated, “Each school community must develop its own anti-bullying program with input from school and community stakeholders” (p. 81). With inconsistencies in data on program effectiveness, it is important annual data are taken to measure program effectiveness and the impact programs have on specific schools (Jones & Augustine, 2015).

Purpose Statement

The purpose of this casual-comparative study was to examine the effectiveness of bullying prevention programs to determine which program had a more significant contribution to middle school students’ self-perception of building positive relationships. Again, due to the importance of providing annual data on program effectiveness for particular school communities (Jones & Augustine, 2015), this study yields specific data that can be useful for rural middle schools in selecting bullying prevention programs that fit their particular needs. This study compared two specific bullying prevention programs fully implemented within two rural middle schools located in the central part of North Carolina. The independent variable was the implemented bullying prevention education program. One middle school had the evidence-based OBPP, which is a school community–based approach focused on four key principles. The OBPP four main principles are: “the role of the adults as authorities and positive role models, showing warmth and positive interest in their students, setting firm limits to unacceptable behavior, and using consistent non-physical and non-hostile negative consequences when rules are broken”

(Beckman & Svensson, 2015, p. 129). The other school had implemented the evidence-based PBIS program, another school community–based method that focuses on taking a “proactive approach to defining and teaching a continuum of positive behavior support for all students” (Molloy, Moore, Trail, Van Epps, & Hopfer, 2013, p. 594). This program is also tailored to meet the specific needs of a school community. The dependent variable was defined as the influence the program had on student self-perception of building positive relationships within the school. This was referred to as how students perceive equality and safety among their peer relationships in correlation with Adams’s equity theory (1963), which suggests people need equality among relationships to feel content. It was operationally defined by the Peer Relations Questionnaire (PRQ).

Matching sample groups were taken to ensure each group had 120 seventh-grade students consisting of 60 boys and 60 girls within each sample group (Gall, Gall, & Borg, 2007). Both sample groups also had seventh-grade students who had been exposed to the program for an entire school year.

Ross and Horner (2009) used a causal-comparative design in their study to evaluate the effectiveness of their bullying prevention strategy of PBIS. Their study provides insight that the causal-comparative design was the appropriate design for this study.

Significance of the Study

Building positive peer relationships is important for school officials as it directly relates to student achievement and school safety. Masland and Lease (2013) found “children are influenced by the levels of academic motivation and engagement expressed by their friends and peers” (p. 662). Building positive student perceptions of their peer relationships is important for

schools to succeed, and implementing bullying prevention programs has documented but mixed evidence of effectiveness, hence the purpose of this study.

North Carolina has implemented statewide policy that mandates school districts have procedures or programs in place that provide students with bullying intervention strategies; reporting procedures, documentation of bullying incidents, and bullying prevention education are all part of this requirement (U.S. Department of Education, 2011). This study benefits rural middle schools across the state and nation by providing their stakeholders with meaningful data that will assist in selecting bullying prevention programs that can be used to strengthen student peer relationships. The OBPP was chosen for this study due to the program's popularity and effectiveness in building positive peer relationships, which has produced successful results in multiple studies across Norway; however, replication of OBPP studies has yielded varying results in the United States (Beckman & Svensson, 2015). Graham (2016) suggested that OBPP effectiveness in Norway was due to "small classrooms, well-trained teachers, and relatively homogeneous student populations" (p. 141), the norm in Norwegian schools. Like the OBPP, studies on PBIS have yielded mixed results. Chitiyo, May, and Chitiyo (2012) found "Horner et al. (2010) stated that there is sufficient experimental evidence to support the efficacy of SW-PBIS, Lane et al. (2006) concluded that many 'methodological limitations limit the ability to draw accurate conclusions about intervention outcomes' (p. 186)" (p. 3). PBIS was also chosen to study due to the program's popularity, as 18% of schools in the United States have implemented PBIS as their intervention to promote a positive approach to improving bullying within schools (Molloy et al., 2013). Providing current and relevant data from an American rural middle school with large class sizes and a variety of student demographics can be useful for school decision-makers within the United States.

There is a lack of current research conducted in the United States comparing the two programs and determining which program is more effective in strengthening peer relationships among students in middle school. Comparing program options and providing relevant data is important for educational leaders as they make decisions on acquiring and implementing a school-wide bullying prevention program that is the best fit for their institutions.

Research Question

RQ1: Is there a difference in the perceptions of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire?

Definitions

1. *Bullying* – This term has various interpretations and definitions as it perceived according to context. Olweus and Limber (2007) mentioned, “A person is bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons, and he or she has difficulty defending himself or herself” (p. 12). Both middle schools that had students participating in this study commonly define bullying in similar fashion, focusing on bullying as a repeated occurrence that causes harm to other students as noted by their bullying program components. This study also identified bullying as a repeated occurrence that poses harmful effects to those who are victimized as well as those who bully.
2. *Bullying prevention programs* – The programs used in this study are evidence-based and have been previously implemented in the schools that participated. Only the OBPP and PBIS were examined in this study due to the research and evidence backing both programs (Olweus & Limber, 2010; Reynolds et al., 2009). Students

who participated in the study had been exposed to the program for at least one full school year, so students fully understood all of its components.

3. *Social equity* – Social equity is a broad term, as it can pertain to various organizations and institutions. It is often referred to as social equality in society despite differences in gender, ethnicity, socioeconomic status, and other such factors (Johnson & Svara, 2011).

Student self-perception of building positive relationships – This phrase will be defined as how students perceive the balance of power among their peer relationships. In greater detail, student self-perception of building positive relationships will describe students' sense of belonging among peer groups despite cultural differences. Student self-perception of building positive relationships correlates with Adams's equity theory of people needing equality among relationships to feel contentment in their lives (Hatfield et al., 2011). Parker, Rubin, Erath, Wojslawowicz, and Buskirk (2006) found "peer experiences play an essential role in adolescents' identity development" (p. 432). The researchers discovered adolescent children, especially vulnerable or antisocial adolescents, will make uncharacteristic decisions such as commit delinquent acts or use inappropriate substances just to be accepted or belong to a group of peers (Parker et al., 2006).

CHAPTER TWO: REVIEW OF THE LITERATURE

Overview

This review of the literature summarizes the negative effects of bullying in schools and the role bullying prevention programs play in combatting ongoing bullying consequences, such as negative self-perception, and strengthening peer relationships. The importance of students feeling positive about their peer relationships is indicated in the theoretical framework, which is supported by Adams's equity theory (1963). The significance of implementing the OBPP and PBIS is illustrated as well as the correlation positive student self-perception of peer relationships has with student achievement (Hatfield et al., 2011). Due to the importance of providing annual data on program effectiveness for particular school communities (Jones & Augustine, 2015), this study aimed to yield specific data that can be useful for rural middle schools in selecting bullying prevention programs that fit their particular needs.

Theoretical Framework

The theoretical framework presented in this paper discusses the ideals of John Stacey Adams, creator of equity theory. Adams was a workplace and behavioral psychologist and first developed the theory in 1963. His mission was to explain relational satisfaction and how much people value fairness in relationships as they develop and evolve (Adams, 1963). Adams's equity theory serves as the theoretical framework for this paper and demonstrates the importance of creating balance of power among peer groups in schools if students will truly maximize their potential. The theory is built upon four propositions, the first of which is that "men and women are 'hardwired' to try to maximize pleasure and minimize pain" (Hatfield et al., 2011, p. 4); men and women embrace situations wanting the best possible solution or outcome. In relation to middle school students, as they enter the school building, they expect positive experiences and

do not seek out a hostile learning environment. The second proposition is, “Society, however, has a vested interest in persuading people to behave fairly and equitably. Groups will generally reward members who treat others equitably and punish those who treat others inequitably” (Hatfield et al., 2011, p. 4). In relation to school, students who treat others kindly and with respect will be looked upon favorably by teachers and peers. Students who are disrespectful to their peers and staff members will face school discipline or receive other such consequences.

Hatfield et al. (2011) stated the third proposition as:

Given societal pressures, people are most comfortable when they perceive that they are profiting from a relationship *and* are getting roughly what they deserve from that relationship. If people feel overbenefited, they may experience pity, guilt, and shame; if under-benefited, they may experience anger, sadness, and resentment. (p. 4)

This idea would describe students as wanting an equal playing field or feelings of safety from their peers at school; they value relationships of an equal balance and do not seek out friendships where they are pitied or looked upon as outcasts. The final and fourth proposition is, “People in inequitable relationships will attempt to reduce their distress through a variety of techniques—by restoring psychological equity, actual equity, or abandoning the relationship” (Hatfield et al., 2011, p. 4). If students are not satisfied with the balance of power from a peer relationship, they will do what is necessary to rectify the situation; this may include lashing out at the other student through physical or verbal bullying. Students may also look to ignore the other peer, which could cause abandonment issues for the other party.

The propositions of Adams’s (1963) equity theory display that people value balance in relationships and need to achieve what they expect from relationships in order to feel contentment. If they receive less than expected from a given relationship, they will experience

feelings of animosity and resentment. Feelings of inequality among peers lead to bullying incidents and cause people to become withdrawn, act out toward others, and suffer bullying implications (Hatfield et al., 2011).

The theoretical framework presents the notion that people in society need equal balance in relationships to feel content about what they are doing (Adams, 1963). This theory can be applied to middle school students, as they need positive relationships to perform well academically and feel comfortable in social situations with peers (Olweus & Limber, 2010).

The PRQ (Rigby & Slee, 1993), created by Dr. Ken Rigby, solicits students' self-perception of their peer relationships and if they feel an equal balance of power. The instrument further signifies if the Olweus program and PBIS are truly helping students build positive relationships within their schools. All of the questions listed on the bully, victim, and pro-social scales address student belonging; however, the questions pertaining to the victim and pro-social scales particularly focus on students wanting to have positive peer relationships and an equal balance of power. The instrument specifically asks students to categorize their routine behavior as the bully, victim, or pro-social with a few miscellaneous questions asking about their comfort with taking risks at school (Rigby & Slee, 1993). This is a vital tool to measure comfort levels of students among their peers, which correlates with Adam's (1963) equity theory of students thirsting for balance of power within their peer groups.

Related Literature

Definition of Bullying

Parents, educators, and the media have various definitions and interpretations of bullying and how it affects the students of today. In this review of the literature, a thorough analysis of what constitutes bullying and the methods used by students to bully their peers will be provided.

Bullying is a phenomenon with various definitions and interpretations. Solberg, Olweus, and Endresen (2007) defined bullies as people who “repeatedly direct negative and hurtful actions toward an individual who has difficulty defending himself or herself” (p. 443). The main principles of this definition are that bullying is done with intent to purposely harm another and the existence of an imbalance of power between bully and victim. A major misconception about the bullying of those unfamiliar with it is that bullying is a repeated behavior and not a one-time occurrence. While bullying can happen at almost any age, it is most common in grades 6 through 10 (Langan, 2011). Both boys and girls in these age groups bully and are bullied in various forms; examples of bullying include people hurting others by physical force, verbal teasing, and exclusion from peers (Graham, 2016).

Bullying in schools takes on multiple forms and has various modalities for students to execute bullying behaviors. Research has revealed that boys and girls differ in bullying behaviors, as boys tend to bully their peers by more physical means such as hitting, pushing, and intimidation (Graham, 2016). Girls prefer to socially ostracize their victims through spreading gossip or rumors (Graham, 2016).

Cyberbullying is rising in popularity as physical bullying is becoming less frequent as students get older (Cassidy, Faucher, & Jackson, 2013). Cyberbullying is bullying others through use of technology. Sending hurtful messages or photos or committing devious acts by way of devices such as computers or cell phones are all forms of cyberbullying. Students who bully through social media websites such as Facebook have posed numerous problems for school administrators; while the bullying is not committed at school, it still affects the everyday livelihood of students (Cassidy et al., 2013). All of these forms of bullying exist in schools and

need to be taken seriously by educators; cyberbullying is a looming threat because most teens today have cell phones and easy access to the internet.

Cyberbullying is a rising threat that is consuming students both in and out of school (Limber, 2011). Burnham, Wright, and Houser (2012) had 114 seventh- and eighth-grade students complete the Li Cyberbullying Survey to determine the frequency that middle school students participate in cyberbullying acts. They found 50% of the students who participated were aware of others who were victims of cyberbullying. The researchers also discovered 30% of the students reported to being cyberbullied, and 15% reported bullying others this way (Burnham et al., 2012). These statistics are alarming and show the rise in cyberbullying in middle schools today. Educators and school policymakers need to be aware of this data when they decide to implement bullying prevention programs and include cyberbullying as a topic of major concern.

Establishing a safe school environment is imperative for student success. Klein et al. (2012) found that school environment has a direct impact on student academic achievement; students who are engulfed in a positive and safe school climate will achieve more highly academically. Students not involved with traditional bullying or cyberbullying have a more positive perception toward their school, peers, and teachers than students involved with bullying situations (Bayar & Ucanok, 2012). Educational leaders must understand that victims of bullying occurrences suffer from major implications, including: (a) ideas of suicide, (b) poor self-perception, (c) disengagement with school, and (d) anger issues that last well into adulthood (Langan, 2011). Agatston, Kowalski, and Limber (2012) discovered both traditional and cyberbullying methods cause considerable distress for victims and typically start at school due to

lack of adult supervision. Bullying has harmful effects on students and is a contributing factor to a negative school climate; it must be countered for students to thrive.

Whether students choose to bully others through physical intimidation, spreading rumors, or cyberbullying, the victims of these behaviors suffer drastic consequences. Students already have a difficult time in school as they battle with struggles of peer acceptance, puberty, and their quest to find their niche in life. School policymakers and educators can alleviate some of their hardships by giving them strategies to help them prevent and overcome the negative consequences of bullying.

Consequences of Bullying

Consequences of bullying are dangerous and have potential to cause long-term to life-threatening ramifications. This review of the literature also contains a discussion on the consequences of bullying and the hidden desire students have to intervene as they witness bullying happening to their peers. There are many ramifications to bullying incidents for both the victim and bully. The harmful effects that students experience from bullying situations, from a drop in performance in the classroom to the extreme case of teen suicide, will be exhibited. Research on students' willingness to intervene as they witness bullying incidents will be discussed; the results of intervening effectively are a more positive school climate for students and drastic reduction of bullying consequences.

Consequences exist for students involved in bullying situations, both the victim and bully. Ponzo (2013) discovered that bullying can cause physiological and psychological damages that can last a lifetime; it can lead the victim to have long-term depression or cause them to have suicidal thoughts. Students who show early signs of bullying behaviors have a greater chance of being involved in a gang or addicted to drugs later in life (Ponzo, 2013). At

the least, Ponzo found (2013) the consequences from bullying situations hinder academic progression for most students.

Students may have issues attending school if they feel threatened or inadequate around their peers (Langan, 2011). Research shows that “on any given school day, approximately 160,000 kids skip school to avoid being picked on by their peers” (Langan, 2011, p. 9). Langan’s (2011) research also linked more than 4,000 teen suicides a year to bullying incidents as well as the inability of students to fully concentrate on their work when they feel like they are in a hostile classroom environment. Students need a school environment where they can flourish. Doing well in school becomes less of a priority for students when all they worry about is being victimized by their fellow classmates.

These consequences of bullying situations can have long-lasting effects for students that carry on well into their adult lives (Graham, 2016). Educators need to analyze such statistics and take every bullying situation reported as a serious matter; if not, the ability for students to fully achieve in school will be negatively impacted.

Students encounter various bullying situations around them in their schools and need effective interventions if they want to take a stand. Educators need to give students the tools and implement the strategies necessary so they can be effective when they gain the courage to intervene when bullying situations do occur. Providing students with the correct bullying prevention skills and intervention strategies can benefit the school administration and teachers. Adequately training pre-service teachers in their education programs in skills of bullying and violence prevention allows them to adequately assist students in reduce bullying consequences, since they would have an immediate grasp on the concept when they stepped into the classroom (Craig, Bell, & Leschied, 2011). When the school community unites and establishes the

expectation bullying will not be tolerated, discipline referrals go down and students are more likely to achieve due to the positive school climate (Beckman & Svensson, 2015). With a more positive school environment for students, the likelihood of these negative consequences happening from bullying instances reduces drastically.

Social Equity

In this study, social equity is referred to as how students view the equality or balance of power among their peer relationships and if they feel a sense of belonging. Norman-Major (2011) referenced social equity as all people being on a level playing field. She further described social equity as concepts of fairness and equal treatment; people should have the same opportunities as their peers (Norman-Major, 2011).

In middle school peer relationships, there should be an equal balance of give and take for students to feel positive about their relationships. Hatfield et al. (2011) stated, “People feel most comfortable when their relationships are maximally profitable and they are giving and getting exactly what they deserve from their relationships—no more and certainly no less” (p. 2). Middle school is a difficult period for young adolescents as students mature into their bodies and begin to yearn for peer acceptance. It is important students feel a sense of belonging and security within their schools in order to experience academic and social success (Klein et al., 2012).

Disruption to social equity or instances of bullying among peers occurs through the actions of individuals toward others or social causes of aggression. Neuman and Baron (2011) found the social causes of aggression are transpired through the “words and deeds of other people” (p. 204); people become upset when they are treated unfairly or not shown the kindness that is expected. Actions which trigger the idea of reciprocity, the feeling of retaliation or bitterness toward the person, can cause harm to the victim (Neuman & Baron, 2011). Feelings of

resentment, bitterness, negative self-worth, and peer ostracism that are the result of these occurrences trigger imbalances of social equity and bullying towards others (Neuman & Baron, 2011). Maintaining effective bullying prevention programs such as Olweus and PBIS is imperative in helping students manage and strengthen their peer relationships as well as providing strategies on how to overcome negative feelings.

The OBPP and PBIS both provide social support components that make them viable programs to analyze in this particular study. Both programs support building positive relationships among students and stress the importance for students to feel safe while at school and around peer groups. The Olweus program provides social support for teachers and students through the weekly class meetings and the everyday rules to which students and staff are held accountable (Beckman & Svensson, 2015). In weekly class meetings, students receive informational support on reacting to bullying situations, being victimized, and treating others fairly (Beckman & Svensson, 2015). Teachers and students provide social support for each other in these meetings. These meetings are implemented to “provide an opportunity to discuss rules about bullying, help students understand the roles that they all have in preventing bullying, and provide an opportunity for students to problem-solve ways to address bullying, through role-play and other strategies” (Limber, 2011, p. 75–76). Two of the four school-wide bullying prevention rules are “We will try to help students that are bullied” and “We will make it a point to include students who are easily left out,” which routinely emphasize the importance of students building positive relationships within their peer groups and protecting those who do not (Limber, 2011). PBIS is similar in the fact it has various pro-social components. There is “a system of acknowledgement for students meeting expected behaviors, precorrecting for expected behaviors, and having a clearly articulated system for discouraging challenging behavior across

all school settings” (Cressey, Whitcomb, McGilvray-Rivet, Morrison, & Shander-Reynolds, 2014, p. 91). This continuous reinforcement of expected behavior has a direct impact on improving student behavior, which allows students the opportunity to be comfortable among their peers in the school setting (Cressey et al., 2014).

Both the OBPP and PBIS emphasize social equity through the attention the programs place on building positive peer relationships and social interaction. The programs differ in their approach, hence the purpose of this study, to decipher which program has a greater impact on student self-perception of building positive relationships.

School Vision

School vision and administrators implementing programs are intertwined, as school programs are essential for a school’s success. Bullying prevention programs are becoming more present in schools all over the country, and being able to relay the importance of implementing such programs is important if administrators want the opportunity of receiving community support (Edmondson & Zeman, 2011). One of the many challenges that school administrators encounter is getting others to buy into their vision; the vision is where administrators see their schools going and what is going to be done to accomplish this forecast. Establishing a widespread buy-in does not happen overnight; it may take community members several years to accept the desired goals and vision for the school. Learning communities develop trust for their school administrators and will buy into their vision when they see that students are the top priority. School faculty, students, and community members want leaders who genuinely care about the success of their school. School administrators must be able to effectively communicate their vision; if they are unable to successfully communicate the desired path of where they want their school to go, it will be very difficult to create a universal buy-in to their vision (Hess,

2013). Through collaborating with the community and relating the school's vision to student well-being, a school administrator has a great likelihood of getting others to buy into his vision. Researching bullying prevention programs and selecting a program that fits appropriately for an administrator's student body are major components of getting a community on board with the direction of the school.

Great school leaders care deeply about their students, staff, and the direction of their schools (Reed & Swaminathan, 2016). The idea of students and school faculty feeling safe and excited to come to school is an essential part of this concern; implementing effective bullying prevention programs is a positive step in establishing a safe and inviting school atmosphere (Limber, 2011). Good school administrators understand that getting students to buy into their vision is a top priority. If students do not feel that they are a part of the school entity, they may have no reason to put forth maximum effort to be successful while at school, which will in turn impact the school's vision. It is important school administrators receive student buy-in, and an effective way to establish student buy-in is through effective teaching (Reed & Swaminathan, 2016). Administrators must show their staff that they care about their well-being and their ability to grow as educators. Building effective teachers and universal buy-in from staff comes from building positive relationships; "The most effective managers say yes, you should build personal relationships with your people, and no, familiarity does not breed contempt" (Blackaby & Blackaby, 2011, p. 165). Teachers feel appreciated and are more inclined to provide their best effort when they are treated with respect and valued by their principal (Reed & Swaminathan, 2016). Maximizing such desired student and faculty buy-in will assist school administrators when the time comes to choose and implement a bullying prevention program

Educational leaders must also be effective communicators; school administrators are constantly communicating with students, staff, community members, and media on a daily basis. If administrators do a poor job of communicating their intentions or vision to the other parties, they risk their institution's reputation, which could be damaging to accomplishing a school's goals. Both Olweus and PBIS require effective implementation for the programs to maximize their impact on students. Effective implementation begins with the school leader and trickles down through the staff and then to the students (Reed & Swaminathan, 2016). Blackaby and Blackaby (2011) mentioned, "Vision can serve as the North Star for organizations, helping leaders keep their bearings as they move their people forward" (p. 56). Institutions that lack clear vision are "in danger of becoming sidetracked and failing to accomplishing its purpose" (Blackaby & Blackaby, 2011, p. 56). It is imperative that leaders have a well-thought out vision and plan to execute the vision before implementing it school-wide. Unclear visions will make leaders seem incompetent and to lack the skills necessary to guide their schools to reach their fullest potential (Blackaby & Blackaby, 2011). School leaders will greatly enhance their influence on others if they are able to effectively communicate their intentions and vision, which will affect the overall success of the school. It is imperative school leaders carefully research and analyze the components of various bullying prevention programs prior to implementation. Choosing the right program and implementing the program effectively are essential and thus serve as reasons for conducting this study.

After successfully establishing vision buy-in from students and staff, it is important that people in the community fully support the direction the administrator is taking their school. "Successful ethical leadership requires administrators to blend the school culture with the culture of the community from which the children come" (Rebore, 2000, p. 111); community members

play a vital role in shaping achievement for any school. They serve as fundraising chairs, booster club representatives, and parent-teacher organization representatives, as well as in many other roles that help schools accomplish their vision. If the stakeholders of the community feel that their school administrator does not include them with decision-making or value the culture of their community, many of these vital positions that community members uphold will be left unfilled (Rebore, 2000). It is the community that is the fundraising backbone of educational organizations; without it, administrators will have a difficulty accomplishing their vision and providing the extracurricular activities that enrich the lives of so many students during their time at school. Bullying prevention programs require support from all community stakeholders, administrators, parents, teachers, and students for the programs to become effective for the school as a whole (OBPP, 2014). Regardless of the direction the administrator chooses to go in implementing a bullying prevention program, it is important community members are involved and their presence is evident. If community members do not support the direction of the administrator when selecting a bullying prevention program, the program will not have the same effects or prove as successful for students (OBPP, 2014).

School administrators will produce high achievement for their schools if they are able to effectively establish vision and then create a universal buy-in from their learning communities (Limber, 2011). Although it is not easy to accomplish this task in a short period of time, showing sincere care for students and staff will build trust in the leadership ability of the administrator. Implementing bullying prevention programs is a lengthy process, and learning communities must be kept in the loop during the implementation stage. Failure to properly establish and communicate this vision could pose harmful effects for the success of the implemented program. Being able to effectively communicate the school's vision and

collaborate with the community will provide solid groundwork for the administrator to implement his vision (Reed & Swaminathan, 2016). Establishing vision provides purpose for students, staff, and the learning community as a whole.

School leaders are the key to taking the first step in wanting to establish a school culture that emphasizes a bully-free environment. Pryor (2010) analyzed the position of school administrator and how these individuals serve as major influences for the schools they represent. Research in this article noted that community and parental involvement in school problems helped change a school's bullying culture. The results of the study indicated administrators play a huge part in establishing a democratic society within their schools and providing teachers the ability to implement ideals such as equality, fairness, and respect toward others in their classrooms.

Jones and Hall (2011) recreated 70 personal accounts of bullying in their text to inform the world of its negative implications. Their mission for the text is to "create safe communities, homes, and schools, where everyone is valued for who they are, not in spite of their differences but because of them" (Jones & Hall, 2011, p. 6). Establishing learning communities of this nature will provide students the confidence necessary to feel safe at school, which in turn will correlate with academic and social successes.

Bullying Prevention Programs

With increased media attention to bullying in schools and the rise of teen deaths due to bullying-related incidents, many states have begun to require their school districts to implement bullying prevention programs. The importance of school vision, descriptions of the components of bullying prevention programs, and research-based results of these programs will be discussed along with the effects these factors have on social equity and student achievement. As the

phenomenon of bullying in schools continues to grow, more studies are being done to investigate effective bullying prevention methods so safe school environments can be established and bullying's harmful effects can be countered (Edmondson & Zeman, 2011). It was previously mentioned that research in this field has only been around a few decades. There are only a few programs that have several years of proven research backing the effectiveness of their methods; however, there is a commonality among the various programs which stress important components that make their programs effective. Roberge (2011) found creating a positive school climate, developing school safety teams, and training members of the school community are effective bullying prevention strategies. Limber (2011) emphasized the importance of having research-based and evidence-based programs in place in order to have a profound effect for students. Edmondson and Zeman (2011) demonstrated in their study that only 12 states in the United States have not yet required their school districts to implement some form of bullying prevention programs or intervention methods. Schools, school districts, and lawmakers are seeing the impact bullying has on students and have begun to implement bullying prevention programs to reduce bullying in their schools; however, not all have conformed. Implementing effective evidence-based programs and strategies are essential; the following methods and programs listed in this section are just a few of the many intervention and prevention strategies being implemented that are experiencing positive results in schools all over the world. This section will conclude with a detailed description of the OBPP and PBIS, which are the two popular and evidence-based programs examined in this study.

The first bullying prevention method, implementing Counseling Group Curriculum, focuses on creating partnerships between parents and school counselors. The curriculum's purpose is "to supplement the widespread use of 6 empirically-based anti-bullying programs in

middle schools by educating and supporting parents of victims of bullying” (Lamanna, Shillingford, Parrish, & Sheffield, 2010, p. 5–6). This curriculum focuses on dangers of cyberbullying, awareness that bullying prevention programs are available, and the importance home environment plays in supporting children who are victims of bullying (Lamanna et al., 2010). Establishing a learning community that can communicate well is important in building a successful school environment. Lamanna et al. (2010) discovered building partnerships between parents and school counselors was a great method for reducing bullying occurrences at school. The researchers had school counselors administer a six-week research-based bullying prevention curriculum to parents who had previously reported their children were being bullied at school. The curriculum was designed to educate parents on how to properly help their children handle bullying situations and overcome their negative ramifications. The results of the study revealed the importance of establishing positive relationships between school personnel and parents (Lamanna et al., 2010). Building these relationships keeps parents involved with what is going on in the schools as well as assists educators in the fight against bullying. Parents who are knowledgeable about bullying and enthusiastic about helping their children succeed will greatly contribute to building a rich overall school environment where students can flourish.

Empowering the student is another strategy and a major component found in Olweus’s theory on establishing a safe school environment. Yang (2010) found in his research that giving students the proper techniques and skills to prevent bullying will give students the confidence necessary to stand up to or stay away from bullying encounters. Yang (2010) researched the movie *The Forbidden Kingdom* and found several underlying themes that could be used to educate students on dealing with bullies. The film is about an American boy who has various encounters with street bullies. The themes that emerged as effective techniques for bullying

prevention were knowing martial arts, possessing great wisdom, and establishing oneself as an influential leader (Yang, 2010). Having the knowledge and skills to execute martial arts is for the purpose of developing student self-discipline only; it is for building confidence in students, which is needed for effective intervening in bullying incidents. The purpose of having great wisdom is to know when to walk away from situations and how to effectively intervene when a spontaneous bullying situation does occur. Finally, those students who are influential leaders have the power to inspire others to take a stand and inform bullies that their behavior will not be tolerated. Providing relevant films that portray messages of bullying prevention are effective means of educating students and giving them the power and knowledge necessary to ward off bullies (Yang, 2010).

Blosnich and Kershner (2009) provided methods for teachers on how to properly educate their students in identifying bullying behaviors and ways to remedy given bullying situations. The authors' article specifically targeted fourth- and fifth-grade students, since this is an age when bullying becomes more prevalent. The methodology used to educate these students described in the article included: (a) study narratives about bullying situations, (b) have students participate in role play scenarios about bullying, (c) provide real-life examples that promote effective classroom discussion, and (d) other such interactive activities. Through participating in these bullying identification and prevention activities, students should be able to properly identify bullying behaviors and have the knowledge necessary to effectively stand up to those who bully (Blosnich & Kershner, 2009).

All of these methods and strategies are effective based on the research; however, they lack components that appease all areas of a school such as community involvement, school-wide policy, and buy-in from students. Programs such as the OBPP and PBIS are proactive in

preventing bullying behaviors and establishing positive peer relationships within the learning community (Limber, 2011; Molloy et al., 2013).

Bullying is a phenomenon that has been around for years and continues to affect students in schools all over the world. It is a serious issue that needs to be addressed by all educators, and evidence-based bullying prevention programs are needed in schools for students to fully achieve (Beckman & Svensson, 2015). These programs are designed to promote equality among peer groups and empower students to have long-lasting peer relationships, which in turn will create a more positive school environment and lead to improved student achievement.

Smith (2013) mentioned the “systematic study of bullying in schools can be dated from the 1970s, mainly in Scandinavia” (p. 81). Although bullying has been happening to students for years, research analyzing the types and ramifications of bullying has only been around for a few decades. Students need evidence-based intervention programs such as the OBPP and PBIS to combat the negative effects of bullying and have a safe school atmosphere. With only a small window of research done on bullying prevention programs, the OBPP and PBIS provide a solid foundation on which educators can base the principles of establishing a bully-free school environment.

In schools all over the world, students daily are part of bullying situations, either as bully, victim, or bystander. In their study on bullying in Brazilian schools, Grossi and dos Santos (2012) found that 80% of Brazilian students had been involved with bullying in some fashion. Through interviewing teachers and having students complete questionnaires, the researchers discovered bullying was a commonality found in all schools from which they drew their sample. The evidence gathered in this study shows the need for schools to implement preventative measures in order to help the majority of their students. Students need effective strategies so

they know how to intervene appropriately when bullying situations do occur. For students to be successful, it is important that teachers train them properly. In a study on teacher and administrator perception of bullying prevention programs, Kennedy et al. (2012) revealed teachers and administrators recognize bullying is a problem in schools. The study consisted of 139 practicing administrators and teachers; the results indicated that teachers felt strongly about educating their students properly on bullying prevention strategies. The study also showed that administrators felt it necessary to establish a good relationship with the parents in order to effectively take a stand against bullying. Establishing a school community where students, teachers, administrators, and parents work collaboratively to stamp out bullying is a key component of Olweus's theory on establishing a bully-free school environment.

There are four main principles to Olweus's (2003) research-based program, which serves as the basis for building a safe school environment for students. The first principle is to gain enthusiasm and positive interest from the adults or parents in the school community. The second is to have firm limits in place that define unacceptable behavior. The third principle of the OBPP is for the school to have consistent consequences enforced when unacceptable behavior occurs. The final principle is to have positive adults within the school community that serve as role models and disciplinarians. The questions in the PRQ asks students to identify if they associate or are victims of unacceptable behavior, which is the reason this instrument was selected for this particular study. The OBPP stresses the importance of schools recognizing unacceptable behavior and putting in parameters to rid schools of such behavior as outlined in the guiding four principles above. Limber (2011) stressed it takes a collaborative effort from all school stakeholders; however, the results linked to implementation of these principles yields a drastic decline in bullying behaviors and a huge increase in positive student perception of school

climate. In her study evaluating the effectiveness of the Olweus Bullying Prevention Program, Limber (2011) found that students being bullied saw reductions of instances by “62% after 8 months and 64% after 20 months” (p. 78) from first implementation of the program. There were “reductions of 33% after 8 months and 53% after 20 months” (p. 79) in incidents where students reported bullying others. These results provide evidence of the effectiveness of the principles of the program and necessity for having strategies in place to help students overcome daily bullying situations. Olweus has laid positive groundwork on which to promote awareness to educators on the negative effects of bullying as well as the importance of implementing research-based programs to help students overcome their everyday experiences with bullying. Through his strategies and research, educators have a better understanding of how to educate their students on bullying and how to deal with situations as they happen.

Bullying has harmful effects and implementing programs such as the OBPP and PBIS are known to reduce bullying behaviors and promote social equity among peers (Limber, 2011; Molloy et al., 2013). Educational leaders and school administrators continuously face difficult budget cuts and must make methodical decisions as they analyze the cost and benefits to implementing such programs (Beckman & Svensson, 2015). This study further examined the effectiveness of each program on students and how they view student perception of social equity; differences in gender perception was also analyzed. This study was conducted so school administrators would have a more thorough understanding of each program and the effects each has on students; it will assist school administrators weigh all of the factors in choosing an efficient program.

Effects of Bullying Prevention Programs

There have been numerous bullying prevention programs implemented across schools worldwide with varying results. Merrell, Gueldner, Ross, and Isava (2008) piloted a meta-analysis across 16 research studies of bullying intervention research in schools throughout a 25-year period to decipher the effectiveness of bullying prevention programs and if they had a direct impact on students. Currently, there are plenty of descriptive studies on the effectiveness of particular programs; however, research synthesizing results of effectiveness across various bullying prevention programs is lacking (Merrell et al., 2008).

The Olweus Bullying Prevention Program is widely known and has three main goals: “to reduce existing bullying problems among students; to prevent the development of new bullying problems; to achieve better peer relations at school” (Olweus & Limber, 2007, p. 1). The program’s purpose is to reduce bullying behaviors so peer relationships will be stronger in school, hence the reason for choosing the PRQ: the assessment focuses on and is self-reporting on peer relationships. Bauer, Lozano, and Rivara (2007) found the program had a 28% decrease in relational victimization and 37% reduction in physical victimization among white students across 10 public middle schools. Relational victimization was characterized by student-reported incidents such as social exclusion and spreading rumors, whereas physical victimization was regarded as student attitude and perception toward bullying (Bauer et al., 2007). The researchers stressed the importance of thoroughly evaluating large-scale bullying prevention programs to prove effectiveness before implementing within a school and community. Due to the impact the Olweus program has on peer relationships and student perception, it is a good program to test and measure student perception of social equity.

Positive Behavior Intervention and Supports is a prevention program used in more than 16,000 schools throughout the United States (Bradshaw, Waasdorp, & Leaf, 2012). The program

focuses on being proactive in establishing positive student behavior and provides teachers, students, and community members the tools to model and reinforce such behaviors (Reynolds et al., 2009). Bradshaw et al. (2012) found PBIS has a significant impact on aggressive behavior problems, office discipline referrals, prosocial behavior, emotion regulation, and concentration problems. Their study encompassed 37 elementary schools and 12,344 elementary students; multilevel analysis of teacher responses at five points across four years was conducted on children's behavior problems, social-emotional functioning, concentration problems, office discipline referrals, prosocial behavior, and suspensions (Bradshaw et al., 2012). Due to the positive impact PBIS has on prosocial behaviors and establishing positive peer relationships, it is an appropriate program to study in analyzing student perception of social equity.

Olweus Bullying Prevention Program

The OBPP “is a comprehensive, school-wide program that was designed in the mid-1980s to reduce bullying and achieve better peer relations among students in elementary, middle, and junior high school grades.” (Limber, 2011, p. 71). Dr. Dan Olweus is an expert in the field of bullying with more than 35 years of research experience and is also founder of the highly touted OBPP. In 2006, the OBPP was the only one of 32 bullying prevention programs to make the surgeon general's best practices list for programs that prevent school violence (Ross & Horner, 2009). The OBPP first requires all teachers, administrators, support personnel, bus drivers, cafeteria workers, and other school staff members be adequately trained in the Olweus methods of bullying prevention. The OBPP provides training DVDs, CDs, workbooks, PowerPoint presentations, and other such materials for staff development so all faculty know how to properly prevent and diffuse bullying situations (OBPP, 2014). The issue of whether a school was trained correctly will be determined in the survey; one question for OBPP and several

for PBIS are placed on the survey to assess students' perception of the effectiveness of program implementation. Creating a school culture where all employees are knowledgeable in recognizing and fielding bullying incidents provides great outlets for students in helping them overcome their own experiences with bullying. As discussed earlier in the paper, the program is founded on four basic principles that focus on preventing bullying at all learning community levels: school, classroom, individual, and community.

The school level requires a bullying prevention coordinating committee that has representation from all departments throughout the school including administration. The school is responsible for introducing the Olweus anti-bullying rules, educating all staff on proper prevention and intervention techniques, and involving parents with the program's events and latest information. Limber (2011) identified the four main anti-bullying rules to the program that are heavily emphasized throughout the school:

We will not bully others; we will try to help students who are bullied; we will try to include students who are left out; if we know that somebody is being bullied, we will tell an adult at school and an adult at home. (p. 75)

These rules are found on posters plastered throughout the school and are referenced often in weekly class meetings. These rules may also be linked with the school's code of conduct, depending on the institution. It is up to the learning community as a whole to stand by these rules and enforce consequences if the rules are broken.

The classroom component is focused mainly on the weekly class meetings. In the meetings, teachers hold quick interactive lessons that educate students on bullying prevention behaviors, reporting incidents, and how to effectively respond when they are involved in a bullying situation. Creating a rich and safe classroom environment is a major component of the

OBPP. Weekly class meetings play an instrumental role in establishing this type of atmosphere. “Class meetings are an opportunity for students to share their feelings and opinions, and to suggest solutions, as they learn to follow the rules and handle bullying situations appropriately” (Olweus & Limber, 2007, p. 78). These meetings promote class cohesiveness and work to build a strong sense of community within the school; they give students the strategies and tools to help ward off bullying situations and help them understand that bullying will not be tolerated throughout the school.

At the individual level, it is imperative that school staff advocate for the students when they report bullying incidents. School staff must maintain the Olweus rules, enforce consequences when needed, and establish open communication with students and students’ parents. School staff must be able to provide emotional support for students so they feel comfortable with reporting incidents as they occur. Staff must also have the knowledge and strategies necessary to handle the student who was responsible for bullying another child. They must work collaboratively with the parents and student in helping that individual alter his behavior. The idea is not to punish or humiliate the student but to help the student correct his behavior so he can be successful as well. Helping the student who is responsible for bullying is just as important as helping the victim, as this strategy rids the school of bullies and promotes individual advocacy (Limber, 2011).

The final component of the OBPP is the community, which is all about schools partnering with community members, businesses, and organizations in efforts to promote the anti-bullying message the school is trying to represent through implementing the Olweus program. The research of the OBPP “has shown that bullying can be decreased substantially through school-wide efforts designed to reduce opportunities and rewards for bullying and to build a feeling of

community among students and adults” (Olweus & Limber, 2010, p. 131). The results of this program prove that building a unified community where students, educators, and parents can work together to prevent bullying allows a successful and positive school environment to be established.

One of the most important elements to determining if the Olweus program is worth implementing is the cost of the program. On average, it costs just over \$3,000 for one school to implement the OBPP (OBPP, 2014). This cost considers the school’s materials, such as school-wide implementation guides, teacher guides, and classroom session guides, which contain the weekly lessons that educates students on bullying prevention strategies and ways to enhance peer relationships. The cost of over \$3,000 covers a school with 500 students, 30 teachers, and 12 committee members; costs could increase or decrease based on size of school (OBPP, 2014). The OBPP is recognized by federal departments, so government funding is available through particular grants advocating for violence prevention in schools.

Positive Behavior Intervention and Supports

Bullying situations and incidents run rampant in schools when they are socially accepted; bullies continue to exhibit their behaviors when their peers do nothing to stop them or they acknowledge their behaviors as acceptable. PBIS is a research-validated program that fosters building a positive school environment through the capacities of school, family, and community (Pas & Bradshaw, 2012). Ross and Horner (2009) explained that the program is designed to:

- (a) to define and teach the concept of “being respectful” to all students in a school;
- (b) to teach all students a three-step response (stop, walk, talk) that minimizes potential social reinforcement when they encounter disrespectful behavior;
- (c) to precorrect the three-step response prior to entering activities likely to include problematic behavior;
- (d) to teach an

appropriate reply when the three-step response is used; and (e) to train staff on a universal strategy for responding when students report incidents of problem behavior (p. 3–4).

Ross and Horner (2009) demonstrated in their article that bullying behaviors can be prevented through withholding social rewards that are known to facilitate bullying, one of the many preventative disciplinary strategies involved with PBIS. The authors conducted a study where they observed six students across three elementary schools that faithfully implemented PBIS. The outcome of the study showed that training students to withhold social rewards in given bullying situations ultimately decreases the amount of bullying incidents. Furthermore, there were fewer responses from victims and bystanders regarding the number of bullying incidents (Ross & Horner, 2009). This article revealed the importance of implementing bullying prevention and intervention strategies and that they actually play a huge role in reducing the frequency of bullying in schools. In a North Carolina study of implementing PBIS in elementary, middle, and high schools over a three-year period, school officials reported significant drops in office disciplinary referrals, increases in attendance, and improved end-of-grade test results (Reynolds et al., 2009). The researchers reported an elementary school dropped 82% in office disciplinary referrals, while a middle school showed improved attendance by 1% and end-of-grade testing by 7%. These figures are just a small measure of the significance of the program and what it can do in building a more positive school climate.

The cost of PBIS is minimal. It would only cost a school a few hundred dollars in materials, as creating signs, banners, and logos are a big part of making the program known school-wide (Public Schools of North Carolina, 2014). There would be a cost for substitutes as teachers would attend PBIS trainings; however, this can be done through district training or other

such methods that would yield minimal costs. Overall, it is an inexpensive program that also allows schools to obtain government funding, since it is recognized nationally as an effective program (Public Schools of North Carolina, 2014).

Although these programs and intervention strategies differ in nature and implementation, they both are effective in empowering students, schools, and communities to take a stand against bullying (OBPP, 2014; Public Schools of North Carolina, 2014). Through working together to accomplish this mission, students will have greater opportunities to focus on excelling in the classroom and participate in extracurricular activities, which epitomizes overall student achievement. In this study, OBPP and PBIS were the bullying prevention programs researched due to their rise in popularity and the profound effects they seem to have on building student perception of social equity. The programs have many similar components; however, they do have a few differences when it comes to cost, implementation, and marketing. The data from this study should reveal the more suitable program for middle school students and provide insight to middle school administrators on selecting future bullying prevention programs for their student bodies.

School Environment and Student Achievement

Finally, research showing the correlation between a positive school environment for students and student success will conclude the review of the literature. Klein et al. (2012) found that establishing a positive and safe school atmosphere has a direct effect on student achievement and overall success of the school. Understanding this relationship is imperative for educators and is a significant motive for conducting this review. School environment plays an instrumental role in shaping school culture, which includes school safety, the enthusiasm students have about attending school, and overall student success. This section is relevant to the study as it reflects

the effects of student contentedness on how they perform academically and socially. Hurford et al. (2010) had 806 Midwest students from four high schools take the School Violence Survey to test the influence school environment has on its students. One hundred thirty of the students took the web-based survey, while the rest of the students took the paper version. The reason for having two methods of examination was to gauge the validity of the web-based version. The survey showed the increase of violent behavior exhibited by students when administration allowed these behaviors to continue (Hurford et al., 2010). It also portrayed the uneasiness students felt about attending school when these types of behaviors were allowed to be exhibited at school. The authors concluded from the survey that school environment is a major factor in shaping school violence, which includes bullying behaviors.

Middle grades are a crossroads for many young students as they begin to lose interest with school. Wang and Holcombe (2010) chose to focus their study on middle grade students because “significant disengagement from school occurs from seventh to eighth grade” (p. 640), which also reflects the reasoning for choosing seventh-grade students as participants in this study. Wang and Holcombe (2010) provided a short-term longitudinal study and inspected the relationship between the perception of school environment held by 1,046 seventh-grade students and their ability to be engaged with school as eighth graders. The sample came from 23 public middle schools within an ethnically diverse county in the eastern part of the United States. Through conducting face-to-face interviews and administering short questionnaires, the researchers obtained the data. Structural equation modeling was used to investigate the relationships among student perception of school environment as seventh graders, school engagement as eighth graders, and academic achievement as eighth graders. School environment and school engagement were broken down into subgroups; academic achievement was measured

by student grade point average in the eighth-grade year (Wang & Holcombe, 2010). The study concluded academic achievement was directly affected for the better due to school environment.

For students to overcome school violence and maximize safety while at school, it is important for them to seek help and report incidents as they happen. In his study, Yablon (2012) explored the relationship between students' social goals and their willingness to seek help if they were to experience violent situations. Yablon (2012) presented 462 Israeli state-run school students four hypothetical vignettes, a social goals scale, and an intimacy scale in order to measure the willingness of students to report violent incidents. The purpose of the study was to see if students found it favorable to report violent incidents to either peers or teachers at the risk of hurting their social images. Elementary, middle, and high school students and at least one school from every school district across Israel participated in the study. Yablon (2012) broke down the characterization of violence into categories of relational and physical; he used ANOVA to analyze the data regarding violence gravity by grade level and chose regression analysis to study the significance of social goals and reporting. The results of the study showed intimacy goals enhanced the courage of students to seek help from friends; however, social status goals decreased the willingness of students to report violent incidents to teachers. The inference that can be drawn from this study is that schools need to establish a positive school climate where students feel encouraged to report incidents, an environment where students do not put social status above protecting their fellow classmates.

All of these studies regarding school environment are evidence that support the idea that school climate directly impacts student achievement. Bayar & Ucanok (2012) discovered students not involved with bullying situations "perceived the school and teachers more positive than bullies and bully/victims" (p. 2355). Establishing a safe school environment is imperative

in creating this positive outlook by students toward their school. Students who feel good about attending their institutions will likely experience greater academic success (Ponzo, 2013). The value students place on their relationships at school is a major part of how they perform (Adams, 1963), which is why student perception of social equity is so important to school climate.

Summary

All of the evidence displayed throughout this review of literature reinforces Adams's (1963) equity theory; people need a healthy balance in peer relationships in schools, and social equity is a major part of determining individual satisfaction with oneself and peers. If students do not have a positive perception of their peer relationships, it could lead to bullying incidents and the negative consequences that follow. Research has shown that implementing evidence-based bullying prevention programs such as the OPBB and PBIS correlate with improved school environments, which in-turn impacts student achievement. School leaders need to think methodically about the costs and benefits of implementing these programs and choose the one that best meets their school needs. It is also important that annual data are measured to determine program effectiveness, hence the purpose of this study. Establishing an effective school vision is essential in creating universal buy-in from community stakeholders, and implementing bullying prevention programs demonstrates concern for overall student well-being. Creating these rich environments for students will directly impact their ability to succeed in school. Educators need to be conscious of these negative consequences of bullying and be proactive in implementing effective programs so students can have the opportunity to thrive in relationships and succeed in a safe and rich school environment.

CHAPTER THREE: METHODS

Overview

The methods chapter outlines the components of the study and explains in detail the actual design, research question, null hypotheses, participants and setting, instrument being used, procedures conducted, and data analysis.

Design

The research design used in this study was quantitative, causal-comparative. This was the most effective method because causal-comparative studies “identify cause and effect relationships by forming groups of individuals in whom the independent variable is present or absent” (Gall et al., 2007, p. 306), then determining whether there are differences between the dependent variables. Ross and Horner (2009) used a causal-comparative design in their study to evaluate the effectiveness of their bullying prevention strategy, PBIS. The research conducted in this study focused on examining the effects of OBPP and PBIS on student perception of building positive relationships, which is similar to the research found in Ross and Horner (2009). Ross and Horner (2009) provided insight that the causal-comparative design is the most appropriate design for examining program effectiveness on a dependent variable.

In this study, both middle schools had the independent variable present and had the same sample population of male and female participants, so differences in the dependent variable could be determined. The independent variable in this study was the type of bullying prevention education program. Only seventh-grade students who had experienced a bullying prevention education program for one full year participated in the study; an equal number of boys and girls participated from each school. The dependent variable was defined as the effects the program

had on student self-perception of building positive relationships within the school as measured by the PRQ.

The researcher had no manipulation of the independent variable in this study, and the sample was not randomized, which confirmed the reasoning for having a causal-comparative design (Gall et al., 2007). Through comparing the survey results from similar groups of students between schools based on demographic data, the effects of having a fully implemented bullying prevention programs were measured.

Exploratory research was more important for this type of study because the relationship of bullying prevention programs with student perception of building positive relationships had not clearly been determined (Lelouche, 2006). Exploratory research is needed in order to explain relationships and note similarities or differences between groups. The purpose of this study was to fully understand the effects of the program on the bullying dilemma and provide educators all of the facts about the two programs without them being alternated.

Research Question

RQ1: Is there a difference in the perceptions of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire?

Null Hypotheses

The null hypotheses for this study are:

H₀1: There will be no statistically significant difference in the perceptions of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire.

H₀2: There will be no statistically significant difference in the perceptions of female students of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire.

H₀3: There will be no statistically significant difference in the perceptions of male students of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire.

Participants and Setting

The participants chosen for this study were from two middle schools; Northwest Middle had the OBPP in place, while East Middle used PBIS to educate their students on bullying prevention. The participants were drawn from a stratified convenience sample located near the researcher beginning with Northwest Middle, which is comprised of 690 students and 38 teachers. The school has grades 6–8 and is recognized as a Title I school. The average proficiency score in math and reading for Northwest Middle is 69%. Caucasian is the largest race at 68% of the student body; Hispanics make up 22%, while African Americans make up 9%. The final 1% of the students are signified as other. East Middle serves 586 students and 30 teachers. East also has grades 6–8 and is recognized as a Title I school. The average proficiency score in math and reading is 65%. East Middle is predominantly Caucasian with a student makeup of 52%, with the Hispanic population 30%, African American at 14%, and other making up the remaining 4%.

The participants in this study were exposed to their bullying prevention program for at least one full school year; sixth-grade students did not participate in the study since sixth grade is the entry point for students at both schools. Middle school students were an appropriate fit for this study because seventh-grade students start to become disengaged with school and bullying

situations further the gap between students and their determination to be successful (Burnham et al., 2012). There was a total of 120 seventh-grade students from each school that were chosen to complete the PRQ. Since the hypothesis test is an independent samples *t*-test with the matching variable at $r = .7$, 100 students is the required minimum for a medium effect size with statistical power .7 at the 0.5 alpha level (Gall et al., 2007). Each sample of 120 students had 60 boys and 60 girls. Students selected for this study had experienced the program throughout their entire sixth-grade school year. Because the bullying programs are required of all students at each school, the sample size of 120 students was selected from over 200 seventh-grade students who had experienced the program as sixth graders. Since both schools have seventh-grade classes with nearly 200 students, selecting 120 students provided more statistical power and significance of the sample as opposed to samples that were smaller (Gall et al., 2007).

A letter was given to all seventh-grade students at each school soliciting participation in the study. All students who brought back a signed permission form were allowed to complete the survey. Surveys that were selected for data analysis were determined based on how students responded to the background questions located on the instrument. Students who selected “pretty often” or “very often” on the Olweus and PBIS question, asking about their previous year experience regarding program implementation, were used in data analysis. The surveys were selected until similar groups were present at both schools. Pintado (2006) used the same method in her research to control for the selection threat to validity. Students had to volunteer to participate; parent and student had to sign the consent letter provided by the researcher with the Institutional Review Board (IRB) stamp, giving their consent to voluntarily participate (see Appendix E).

Students who had transferred in or were new to the school were not in the pool of participants chosen for this study. Olweus and Limber (2010) discussed the many components of the Olweus program and that it is necessary to receive all parts in order to truly reap the full benefits. It was important that students received full exposure to all of the components of OBPP and PBIS to ensure external validity.

Both middle schools are part of a school district that encompasses 31 schools; there are 17 elementary, seven middle, and seven high schools located in the district. District officials require school principals to have a bullying prevention program or intervention strategy implemented school-wide; however, it is up to the principals to determine which program is best suited for their school and students. School principals are responsible for implementing their bullying prevention programs and selecting committee members to carry out implementation of all program components. These committees are made up of various personnel in each school, which includes administrators, teachers, counselors, and parents to ensure all of the components are being implemented correctly. Signs advocating both the OBPP and PBIS are located within each school; these signs are found in hallways, classrooms, and main social areas of each school. Each school also has written policy about the importance of the program and how the programs will be used to reduce bullying behaviors and build school climate. The OBPP focuses on building positive relationships and reducing bullying behaviors through fostering its program components at the school, classroom, individual, and community levels. PBIS also stresses building positive relationships and individual accountability in all areas of a school's learning community. Both programs link their principles to Adams's (1963) equity theory that people value positive relationships and those who lack these relationships are negatively affected.

Instrumentation

The instrument that was used to assess the effects of the OBPP and PBIS on student self-perception of building positive relationships was the PRQ (Rigby & Slee, 1993). The PRQ is an in-depth 20-question survey that assesses a range of various aspects of bullying in schools. The questions solicit self-perception responses on peer relationships, which was important for this particular study and makes the PRQ an appropriate instrument for gauging student responses on building positive relationships (Rigby & Slee, 1993). Other instruments researched failed to offer student self-perception responses that focused on peer relationships. The instrument has since evolved to the Peer Relations Assessment Questionnaire – Revised (PRAQ-R); the PRAQ-R is a survey package that solicits perspectives from the teacher, parent, and student. The PRQ was first developed in the early 1990s by Ken Rigby of Australia with intent to test student opinion; its purpose was to solicit student feedback to demonstrate the negative consequences bullying has on students (Rigby & Slee, 1993). More specifically, Rigby created the instrument to obtain “reliable information about the incidence of bullying, where and when it occurs, what forms it takes, and most importantly the readiness of students to receive help or to discuss the issue of bullying in their school with other students” (Rigby, 1996, p. 305). This instrument has been frequently used internationally as a self-reporting measure for bullying (Griffin & Gross, 2004). It has also been used in multiple studies within the United States (Harris, Petrie, & Willoughby, 2002; Pearl & Delaney, 2006; Seals, 2003; Thomas, Connor, & Scott, 2015) to measure prevalence estimates of bullying. Written permission by email to use the PRQ was previously granted by Dr. Ken Rigby, the creator of the instrument; see Appendix B for permission to use the instrument. Tabaeian, Amiri, and Molavi (2012) found the PRQ has a

consistent reliability rating of $\alpha = 0.77$ and is widely used in the US and Australia to measure bullying.

Student self-perception of building positive relationships was measured by the PRQ with 20 questions on the instrument; students were allowed 30 minutes to complete the survey even though all student participants finished well before the 30 minutes elapsed. The questions gauged student self-perception of how they feel about peer relationships in their school in various fashions (Rigby & Slee, 1993). The 20 questions are categorized under three subscales as self-reporting bully (questions 4, 9, 11, 14, 16, 17), victim (questions 3, 8, 12, 18, 19), and pro-social (questions 5, 10, 15, 20); there are also 5 filler questions (questions 1, 2, 6, 7, 13). The student self-reporting instrument is measured by four student responses and valued by a 4-point Likert scale: “Never = 1, Once in a while = 2, Pretty often = 3, and Very often = 4.” Due to this study exclusively looking at building positive peer relationships, only the victim scale responses (questions 3, 8, 12, 18, 19) were used in the data analysis to determine which program had a greater impact on student self-perception regarding their peer relationships. The average from the five questions on each survey was recorded. The maximum student score for each student participant was 20, while the lowest was 5. Students scoring 11–20 on the victimization scale had a negative self-perception of building positive relationships, while students scoring 5–10 had a positive self-perception of building positive relationships. Rigby and Slee (1993) found the five-item victimization scale has an internal consistency alpha value of .77.

In a study on the reliability and validity of the PRQ, Tabaeian et al. (2012) stated, “The Peer Relationships Questionnaire is a highly reliable and valid instrument with desirable sensitivity and specificity” (p. 19). The authors further mentioned:

Considering the importance of investigating peer relations both from the developmental and educational viewpoints, its applicability in situations which demand measuring such relations, its self-report nature as well as its being brief, it could be said that it meets the necessary conditions of being used for relevant situations. (Tabaeian et al., 2012, p. 19).

Due to specificity of the questions on gauging student self-perception of peer relationships and the acceptable reliability rating of 0.77, the PRQ was an appropriate instrument for this study. In order to gauge the fidelity measure perspective of intervention implementation, students were asked how often the teachers talked about building peer relationships throughout their sixth-grade year; this ensured teachers had implemented the program effectively. Also, students were asked to indicate their gender and ethnicity to solicit appropriate descriptive statistics, which effectively described the student samples (Gall et al., 2007). The questionnaire was scored by the researcher in accordance with the guidelines described on the instrument.

Procedures

Prior to implementing the procedures for this causal-comparative study, permission from the IRB was acquired (see Appendix C). Since this was a study on a cause-and-effect relationship between bullying prevention programs on student perception of building positive relationships, a causal-comparative design was the appropriate fit for this research (Ross & Horner, 2009). Permission to use the PRQ was previously granted in writing by Dr. Ken Rigby, the creator of the instrument (see Appendix A). Northwest Middle School was previously selected for this study due to having the Olweus program fully implemented, while East Middle was selected for having PBIS fully intact. Permission from both school principals to administer the survey was acquired as noted by school district approval found in Appendix B; once permission was granted in writing, the researcher commenced with the study. After students

completed the survey, survey responses were matched by subgroup categories determined by gender due to the importance of having samples of equal participants (Gall et al., 2007). There were 60 boys and 60 girls in each sample. Through using a stratified convenience sampling method, student questionnaire responses were randomly selected from the stack of completed surveys that made up each subgroup until 120 students from each school were selected. Taking 120 students taken from seventh-grade classes, which have close to 200 students, increased the statistical power and significance of the sample due to the importance of obtaining at least 100 surveys maintaining the statistical power of $r = .7$ (Gall et al., 2007).

Students who were chosen to participate were given a letter to take home soliciting participation for the study (see Appendix E). Student and parent had to provide written consent on the IRB approved consent form (see Appendix D) for the student to complete the questionnaire; if the student rejected the opportunity to complete the survey, the next student from each subgroup was selected. The survey was administered during one day set aside for each school; each school had its own classroom to complete the survey with the researcher administering the surveys along with another school staff member to ensure administration fidelity. The researcher waited until all participants were present prior to administering the survey. Classes of 25 to 30 students rotated through the testing room with each session lasting no more than 30 minutes. The survey was administered by the researcher via paper and pencil due to lack of access to computers on that school day; each paper had a list of the 20 questions taken from the PRQ. Students marked their answers with the researcher staying in the front of the classroom to ensure students provided honest responses. Students who participated in the study completed a survey, answering 20 questions on their perception of their peer groups with only the five questions from the victimization scale used in the data analyses. The researcher

had all students place completed surveys into an envelope located in the back of the classroom to ensure anonymity. The researcher monitored the administration and collection of all surveys to ensure survey fidelity. Once the 120 students from each school had successfully completed the surveys, the researcher compiled and analyzed the data for the effects of each program on student perception of building positive relationships from both schools.

Data Analysis

Gall et al. (2007) mentioned that computing descriptive statistics for each comparison group is the first step in analyzing data within a causal-comparative study. In this study, the mean, standard deviation, and median for each sample group were determined, as evident in Table 1. Since the researcher compared two sample means which were matched according to gender, a *t*-test for correlated means was the most appropriate analysis (Gall et al., 2007); three independent *t*-tests were conducted in this study. Due to three *t*-tests being run on the same data, the alpha level was set at .02; a *p* value of less than .02 determines statistical significance between variables (Wu, Yang, Huang, & Chang, 2010) and whether the researcher can reject the null hypotheses. A Lilliefors correction was used to minimize a type I error. IBM Software Package Statistics Standard (SPSS) 20.0 was used to conduct the analysis (Wu et al., 2010). A box and whisker plot for each group was used to check for outliers. The dependent variable was measured on an interval scale. With conducting a *t*-test, it is assumed “the scores form an interval or ratio scale. The second assumption is that scores in the populations under study are normally distributed. The third assumption is that score variances for the populations under study are equal” (Gall et al., 2007, p. 315). The observations within each variable are independent, which satisfies the first assumption of independent observations. Normality was tested by Kolmogorov-Smirnov, and the Mann-Whitney *U* Test was used to test equal variances

(Gall et al., 2007). Effect size was measured through partial eta squared to gauge for relationships among variables (MacFarland, 2012). Number (N), number per cell (n), degrees of freedom (df), t value (t), significance level (p), and power were reported as well as noted in Table 3.

CHAPTER FOUR: FINDINGS

Overview

This chapter provides an in-depth description and analysis of the data collected from the surveys taken from Northwest and East Middle Schools. The results indicate that both programs have a positive impact on student self-perception of building positive relationships; however, neither program has a more significant impact than the other.

Research Question

RQ1: Is there a difference in the perceptions of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire?

Null Hypotheses

The null hypotheses for this study are:

H₀₁: There will be no statistically significant difference in the perceptions of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire.

H₀₂: There will be no statistically significant difference in the perceptions of female students of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire.

H₀₃: There will be no statistically significant difference in the perceptions of male students of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire.

Descriptive Statistics

Out of the 240 surveys administered at both schools, only six questions were not answered on the surveys, which included three items that were needed for data analysis. In the analyses below, these surveys were omitted due to not having noted student responses for these three items. This left Northwest Middle with 118 total surveys completed by 59 male and 59 female students. East Middle had 119 total surveys completed by 59 male and 60 female students. Despite the three omitted surveys, both schools met the criteria of 100 participating students, which is the required minimum for a medium effect size with statistical power .7 at the 0.5 alpha level (Gall et al., 2007).

Although the survey contained 20 questions, only the victimization scale of the PRQ was used to establish a measure of the “student self-perception of building positive relationships,” which correlates with the research question:

RQ1: Is there a difference in the perceptions of building positive relationships between students who participated in Olweus and students who participated in PBIS training, as measured by the Peer Relations Questionnaire?

In the data tables and figures, the dependent measure is called the *Self-perception of building positive relationships* (SPBPR) scale. For each student survey, the responses on items 3, 8, 12, 18, 19 of the PRQ were used to calculate the SPBPR; this gives it a range of 5–20. Table 1 illustrates the descriptive statistics below. It is apparent there is little difference between the mean, standard deviation, and median as represented by total participants from both schools and gender, which reflects a lack of significant evidence to determine which program has a greater impact on student perceptions of building positive relationships.

Table 1

Descriptive Statistics for the Self-Perception of Building Positive Relationships (SPBPR) Scale by School and by School x Gender

| Sample | <i>N</i> | <i>M (SD)</i> | Median | Min | Max |
|------------------|----------|---------------|--------|------|-------|
| East Middle | 119 | 7.75 (3.02) | 7.00 | 5.00 | 17.00 |
| Females | 60 | 7.38 (2.87) | 6.00 | 5.00 | 17.00 |
| Males | 59 | 8.12 (3.15) | 7.00 | 5.00 | 17.00 |
| Northwest Middle | 118 | 7.80 (3.09) | 7.00 | 5.00 | 19.00 |
| Females | 59 | 7.22 (2.51) | 6.00 | 5.00 | 17.00 |
| Males | 59 | 8.37 (3.50) | 8.00 | 5.00 | 19.00 |

Results

The following box plots and histograms indicate the distribution of SPBPR scores by school and then by gender, fully demonstrating the lack of a normal distribution, as both box plots and histograms lack left tails, which shows 25% of the scores in the samples taken are on the lowest score (5).

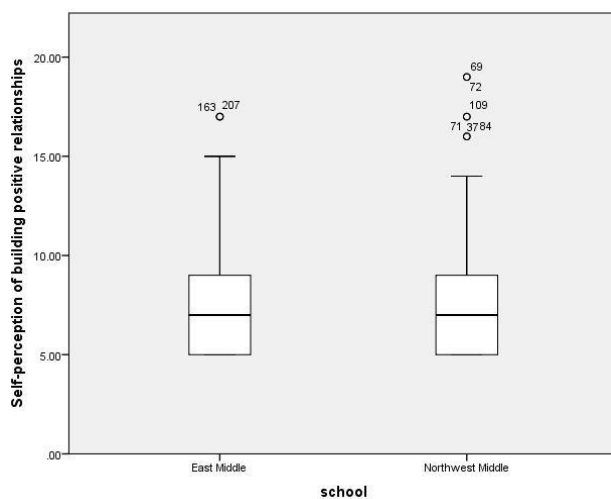


Figure 1. Distribution of SPBPR scores by school.

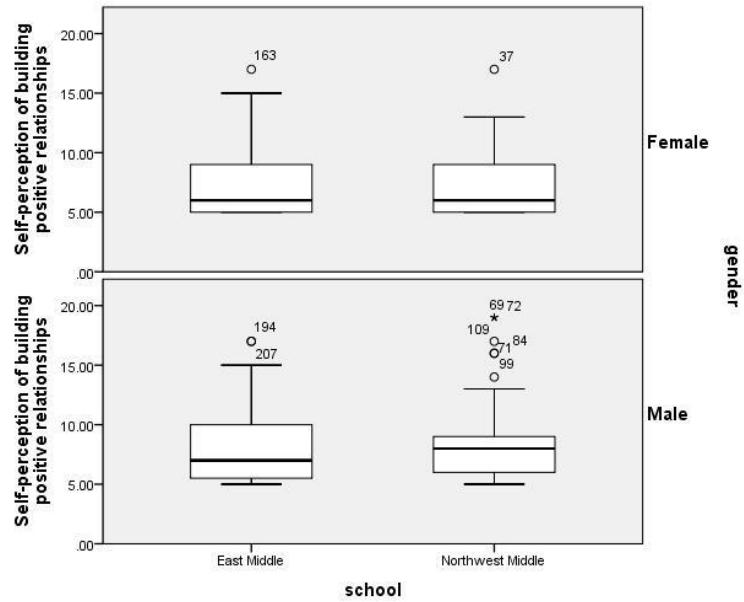


Figure 2. Distribution of SPBPR scores by school x gender

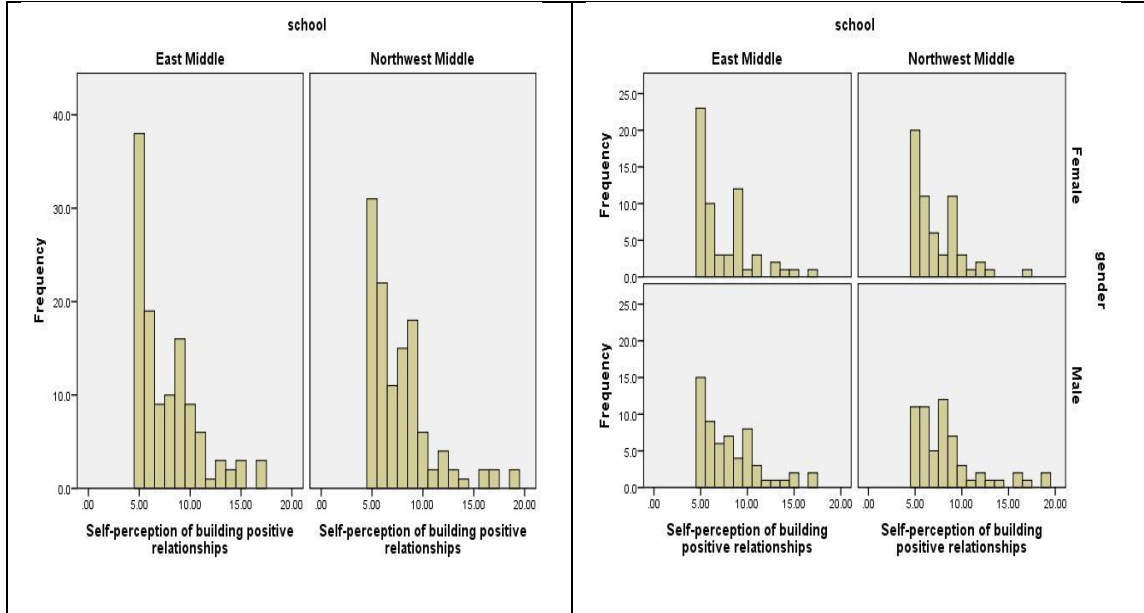


Figure 3. Analysis of assumptions for t-test

Formal Kolmogorov-Smirnov tests (with Lilliefors correction) validate a statistically significant deviation from normality, which questions the use of *t*-tests, only because the assumption of normality can no longer be used. All sample groups have significant outliers, especially males at Northwest Middle school. This data verifies that none of the populations being sampled can be

described adequately by a Normal distribution. Although t procedures are strong to deviations from Normality, these samples challenge the use of comparisons based on t tests and suggest using nonparametric tests to compare population and subgroup distributions.

Table 2

Kolmogorov-Smirnov Tests for Normal Distribution of Self-Perception of Building Positive Relationships (SPBPR) Scale by School and by School x Gender

| Sample | <i>df</i> | <i>p</i> |
|------------------|-----------|----------|
| East Middle | 119 | < .001 |
| Females | 60 | < .001 |
| Males | 59 | < .001 |
| Northwest Middle | 118 | < .001 |
| Females | 59 | < .001 |
| Males | 59 | < .001 |

Equal Population Means t -Test

Without making assumptions about the population variances, two-tailed t -tests for equal population means showed no statistically significant difference in group mean SPBPR scores for school populations or for gendered subgroups at the $\alpha = .02$ level. The p -values were far below the significance level, and effect sizes measured by eta-squared and Cohen's d were very small. These tests give strong evidence that there are no statistically significant differences in the mean SPBPR scores between the schools or between females and males across schools.

Table 3

Differences, Degrees of Freedom, t Values, p Values, Effect Sizes, and Power for Group Comparisons on Self-Perception of Building Positive Relationships (SPBPR)

| Population | $M_E - M_N$ | df | t | p | Effect sizes | | Power |
|---------------|-------------|------|--------|-------|--------------|---------|-------|
| | | | | | η^2 | d | |
| Entire school | -0.487 | 235 | -0.123 | 0.902 | 0.0001 | -0.0164 | 0.021 |
| Females only | +0.163 | 117 | +0.330 | 0.742 | 0.0009 | 0.0593 | 0.026 |
| Males only | -0.254 | 116 | -0.414 | 0.679 | 0.0015 | -0.0740 | 0.030 |

Note. η^2 calculated as $t^2 / (t^2 + N - 1)$ following Richardson (2011). For t -tests, η^2 and partial η^2 are the same. Cohen's d was calculated using $(M_E - M_N) / SD_{pooled}$. Post-hoc power is calculated with the *pwr* package in *R* using d for each population. Post-hoc power is not a good measure of the power of the experiment to detect effects (Levine & Ensom, 2001).

Non-Parametric Tests for Equivalent Distributions

Three non-parametric tests comparing distributions of the SPBPR scores for the two school populations and the gendered subgroups gave no evidence for statistically significant differences between groups at the $\alpha = 0.02$ significance level. The independent-samples median test looks for significant results under the null hypotheses that the median SPBPR is the same between populations. The independent-samples Mann-Whitney U test looks for significant results under the null hypotheses that the distributions of SPBPR scores are the same across populations. The independent-samples Kolmogorov-Smirnov test also looks for significant results under the null hypotheses that the distributions of SPBPR scores are the same across populations. Based on these parametric tests, there is no evidence that the distribution of scores was different between schools, neither for the whole population nor for females or males considered separately.

Table 4

The p-Values for Non-Parametric Tests Comparing Distributions of Self-Perception of Building Positive Relationships (SPBPR) Across Schools by School and School x Gender

| Sample | p-values | | |
|--------------|------------------------------------|-------------------------------|----------------------------|
| | Independent samples median test | Mann-Whitney <i>U</i> test | Kolmogorov-Smirnov test |
| All children | .953 | .818 | .991 |
| Females only | .932 | .930 | .930 |
| Males only | .848 | .765 | 1.00 |

Hypotheses

The data illustrated across the box plots, histograms, tables, and tests indicate that there is a lack of normality across total and gender subgroup sample populations. The results confirmed that both programs have a positive impact on student perception of building positive relationships. It also revealed there is also no statistically significant evidence which links a stronger impact of a specific program over the other in producing student self-perception of building positive relationships. Due to a lack of normality and statistically significant evidence, the researcher must fail to reject all three null hypotheses.

CHAPTER FIVE: CONCLUSIONS

Overview

The conclusions discussed in this chapter reexamine previous studies on Olweus and PBIS and how those results compare to the current study. There is also discussion of the importance of having more bullying research studies in rural areas, as most studies within the United States focus on bullying in urban areas. Implications and limitations of the study are revealed along with recommendations for future research.

Discussion

The purpose of this casual-comparative study was to examine the effectiveness of bullying prevention programs to determine which program had a more significant contribution to middle school students' self-perception of building positive relationships. This study was conducted due to the importance of providing annual data on program effectiveness for particular school communities (Jones & Augustine, 2015). This study should provide school stakeholders in rural middle schools with relevant data to assist with selecting bullying prevention programs that best fit their particular needs. The study yielded extremely positive results on the impact the programs had on students; however, conclusive results were not obtained on which program had a greater impact due to the lack of normality found in the data reporting, which makes it difficult to generalize this study across various populations.

This study did yield positive results for both the Olweus program and PBIS in relation to the overall impact the programs had on students' self-perception of building positive relationships. The questions taken from the survey used in the data analysis came from the victimization scale of the PRQ, which encompassed five questions that gauged students' perception of how often they are picked on or ostracized by their peers (Rigby & Slee, 1993).

Northwest Middle, which had Olweus fully implemented, had 118 surveys completed by 59 males and 59 females. East Middle, which had PBIS fully implemented, had 119 surveys completed by 59 males and 60 females. The results had a range of 5–20 with 5 representing a low amount of peer victimization, correlating with students having a very good self-perception of building positive relationships, while a score of 20 represented poor student perception regarding their relationships. Table 1, located in Chapter Three, demonstrates the positive outcomes of both programs on how students view their peer relationships at school. At Northwest Middle, the mean was 7.8 and the median was 7.0. This data confirmed students in the Olweus program experience a low amount of peer victimization and have a solid view of building positive relationships, with both the mean and median showing a net result of students only being victimized “once in a while” (Rigby & Slee, 1993). The same can be said for the students at East Middle who participate in PBIS; the mean is 7.75 and the median is 7.0, which also yielded a solid view of students’ self-perceptions to building positive relationships at school.

This study also reaffirms the inconsistencies with the data presented in the above literature review due to the inability for this study to be generalized to various populations. Various data presented on Olweus demonstrate the program’s popularity and impact it has on students building positive peer relationships within schools. These outcomes have been reported in multiple studies across Norway; however, replication of OBPP studies have yielded varying results in the United States (Beckman & Svensson, 2015). Graham (2016) suggested that OBPP effectiveness in Norway was due to “small classrooms, well-trained teachers, and relatively homogeneous student populations” (p. 141), the norm in most Norwegian schools. Like the OBPP, studies on PBIS have yielded mixed results. Chitiyo et al. (2012) found “Horner et al. (2010) stated that there is sufficient experimental evidence to support the efficacy of SW-PBIS,

Lane et al. (2006) concluded that many ‘methodological limitations limit the ability to draw accurate conclusions about intervention outcomes’ (p. 186)” (p. 3). As mentioned above, PBIS is also widely popular, as 18% of schools in the United States have implemented PBIS to promote a positive approach to improving bullying within schools (Molloy et al., 2013). The results taken from this study coincide with outcomes from other research studies on both Olweus and PBIS. Both programs yield positive effects on students feeling good about their peer relationships at school; however, the results are inconsistent across school populations around the world. Factors such as large class sizes and a variety of student demographics profoundly affect program data in schools within the United States. Smokowski, Cotter, Robertson, and Guo (2013) found bullying research studies in the United States have been “dominantly devoted to urban youth” (p. 2) and “little is known about bullying in rural areas” (p. 1). This study focused on rural middle school students. As indicated in the box plots found in Chapter Four, there is a lack of normality in reported survey results. This further confirmed the study’s results do not provide statistically significant data to educational leaders across rural middle schools that Olweus and PBIS will have the same impact on their institutions as they did for Northwest and East Middle.

Implications

There is much to be gained from this study despite the inability to generalize this study to all schools across the United States. This study further expanded on the existing body of knowledge on the success of bullying program interventions, as it reinforces the impact Olweus and PBIS have on improving peer relationships within schools. It can be said that the lack of normality across both sample groups demonstrated successful and effective program implementation and that both schools have bought into the concept of making their schools

bully-free environments. The data showed the programs are effective, which can provide educational leaders and stakeholders with pertinent information that either program can help students build positive peer relationships.

Limitations

The limitations to this study could impact the results gathered from student surveys. The sample was taken from two schools within the same county, which affected the ability of generalization and is a threat to the study's external validity (Gall et al., 2007). Both schools are located in rural areas of North Carolina, so the results of this study potentially yielded different conclusions than if the study was conducted in other parts of the country or in more urban areas of North Carolina. The internal validity of this study is affected by the characteristics of the participants; while the demographics are similar, other variables such as IQ and environmental factors at participants' homes could influence the way students feel about their school. Selection of students is also a threat to the study's internal validity, since the participants were not selected by random sampling or randomly assigned (Gall et al., 2007). The students selected to participate in the study were matched by grade level and gender in order to control for the selection threat to internal validity because differences in gender reporting between groups could affect the outcomes of the dependent variable (Gall, Gall, & Borg, 2010). Threats to external and internal validity are looming factors that have potential to implicate the results of the study. Preventative measures such as ensuring programs were implemented with fidelity and matching sample groups are important to preventing these threats of external and internal validity. Students were required to be exposed to their respective program for one full year prior to participating in the study. In order to ensure this requirement was met, students were asked at the beginning of the survey to rate their experiences with learning about peer relationships in the

first year of being exposed to the program. Any survey that did not receive a rating of “pretty often” or “very often” were discarded and not included in the data analysis.

Recommendations for Future Research

1. Include more schools within the study from both rural and urban settings.
2. Get a larger sample group that is taken from a randomized population.
3. Utilize a different instrument or include more questions from the PRQ.
4. Ensure ethnicity is a criterion when matching sample groups.
5. Include schools outside of North Carolina in future studies.

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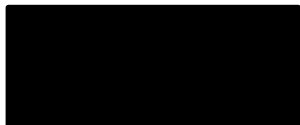
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APPENDIX A

Permission to Use Peer Relations Questionnaire



David Cross <[redacted]>

questionnaire

Kenneth Rigby <[redacted]>

Tue, Jun 28, 2016 at 7:20 PM

To: "[redacted]" <[redacted]>

Dear David

Please feel free to use it, and send me your questions

Ken Rigby

APPENDIX B

Permission to Conduct Research

David Cross has permission to conduct a research study. The research design has been explained in writing by David Cross. At the conclusion of the study, David Cross has agreed to share findings with the local educational agency. David Cross has agreed to maintain all ethical standards as both an employee of the school district and as a scholarly researcher.

APPENDIX C

Institutional Review Board Approval Letter

LIBERTY UNIVERSITY
INSTITUTIONAL REVIEW BOARD

May 5, 2017

David Cross

IRB Approval 2823.050517: The Effects of a Bullying Prevention Program and a Positive Behavior Program on the Self-Perceptions of Building Positive Relationships among Middle School Students

Dear David Cross,

We are pleased to inform you that your study has been approved by the Liberty University IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

**G. Michele Baker, MA, CIP***Administrative Chair of Institutional Research***The Graduate School****LIBERTY**
UNIVERSITY.*Liberty University | Training Champions for Christ since 1971*

APPENDIX D

Parent/Guardian Consent Form

THE EFFECTS OF A BULLYING PREVENTION PROGRAM AND A POSITIVE BEHAVIOR PROGRAM ON THE SELF-PERCEPTIONS OF BUILDING POSITIVE RELATIONSHIPS AMONG MIDDLE SCHOOL STUDENTS

David Kemp Cross, Jr.

Liberty University

School of Education

Your child is invited to be in a research study on bullying prevention programs in middle schools. Your child was selected as a possible participant because he or she is a seventh grade student and has been exposed to one of the two bullying prevention programs for one full year. Please read this form and ask any questions you may have before agreeing to allow your child to be in the study.

David Cross, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to determine if Olweus or PBIS has a greater impact on building positive relationships among middle school students.

Procedures: If you agree to allow your child to be in this study, I would ask him or her to do the following things:

1. Take a 20 question survey via paper copy, which will take no more than 30 minutes to complete
2. Turn in completed survey to an envelope in the back of the classroom

Risks and Benefits of being in the Study: The risks involved in this study are minimal, which means they are equal to the risks your child would encounter in everyday life.

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include: Through comparing Olweus and PBIS, middle school leaders will have current and relevant data that can help them make sound decisions in implementing bullying prevention programs, which will help their students take a stand against bullying.

Compensation: Your child will not be compensated for participating in this study.

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records.

- Surveys will immediately be taken up once students complete all questions and data will be stored in a locked desk at the researcher's home. Data will be retained for three years after the completion of the study and will then be shredded.
- Students will complete the surveys in a designated classroom. Students will not put their names on the surveys or talk to other students while taking the survey, and desks will be separated from one another to ensure student privacy. Only the researcher will have access to the records.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to allow your child to participate will not affect his or her current or future relations with Liberty University. If you decide to allow your child to participate, he or she is free to not answer any question or withdraw at any time prior to turning in the survey without affecting those relationships.

Contacts and Questions: The researcher conducting this study is David Cross. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [REDACTED] or [REDACTED]. You may also contact the researcher's faculty advisor, Justin Silvey, at [REDACTED].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Green Hall 1887, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to allow my child to participate in the study.

(NOTE: DO NOT AGREE TO ALLOW YOUR CHILD TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

Signature of Child Date

Signature of Parent Date

Signature of Investigator Date

APPENDIX E

5/8/17

Dear Parent or Guardian:

As a graduate student in the School of Education at Liberty University, I am conducting research to better understand bullying prevention programs in schools. The purpose of my research is to determine if Olweus or PBIS has a greater impact on building positive relationships among middle school students, which will provide meaningful data for the Randolph County School System in determining bullying prevention program effectiveness, and I am writing to invite your child to participate in my study.

If you are willing to allow your child to participate, he or she will be asked to fill out the Peer Relations Questionnaire, which is a 20-question questionnaire that asks students how they feel about their peer relationships at school. It should take approximately 30 minutes for your child to complete the procedure listed. Your child's participation will be completely anonymous, and no personal, identifying information will be required. Your child's gender and ethnicity will be requested as part of his or her participation, but the information will remain confidential.

Attached to this letter is a consent document, which has been sent one week prior to administering the questionnaire. The consent document contains additional information about my research; for your child to participate, please complete and return the consent document to your child's homeroom teacher.

Sincerely,

David Cross
Assistant Principal