AN ANALYSIS OF THE RELATIONSHIP BETWEEN BULLYING OTHERS, PERCEIVED SCHOOL CONNECTEDNESS, ACADEMIC ACHIEVEMENT, AND SELECTED DEMOGRAPHICS AMONG FEMALE HIGH SCHOOL ATHLETES

A dissertation submitted to the Kent State University College and Graduate School of Education, Health, and Human Services in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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The purpose of this study was to analyze the relationship between bullying others, perceived school connectedness, academic achievement, and selected demographics among female high school athletes. A purposive sample of all in-season (Fall 2012) female athletes enrolled in three schools located in an urban school district in Northeast Ohio was recruited to participate in this study. Subjects completed a 54-item instrument designed to assess their self-reported involvement in bullying others. Further, subjects were asked to provide responses about the construct of school connectedness. Data were obtained using a one-time anonymous paper/pencil instrument. Data were analyzed using the one-way and two-way Analysis of Variance (ANOVA) techniques and Correlation analysis.

Findings revealed a statistically significant relationship between bullying others and race, and bullying others and current achievement. Also, the data revealed a statistically significant correlation between bullying others and perceived school connectedness. The results from this study support the current body of literature dedicated to this relationship between bullying others and perceived school connectedness. Interestingly, much less is known about the relationship between the independent and dependent variables used in this study as it occurs among female high
school athletes. More research with athletes is recommended to better elucidate the effects of sports participation on these variables.
ACKNOWLEDGMENTS

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To my parents, I thank you for believing in me. Because of you, I have learned that anything is possible, if you put your mind to it. I thank you for instilling in me the work ethic, dedication, and determination needed to get the job done. I am so proud to share this accomplishment with you.

To my cohort: May the SEM live on forever.
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CHAPTER I

INTRODUCTION

Bullying as a Complex Health Concern

The purpose of this study was to examine the relationship between bullying others, perceived school connectedness, academic achievement, and selected demographics among female high school athletes. In a special issue of *School Psychology Review* dedicated to research on school bullying, Espelage and Swearer (2003) declared:

School psychologists . . . in the U.S. have studied peer victimization and its detrimental effects for many years. Similarly, physical aggression and more extreme forms of violence have been investigated for decades in the United States by sociologists, psychologists, and criminologists. Unfortunately, fewer studies have focused exclusively on bullying, so scholars and clinicians have used findings from international studies to guide prevention and intervention efforts in the United States. Despite our nation’s slow start, many active research programs on bullying are making significant advances in our understanding of the dynamics of bullying . . . and how to effectively intervene. (pp. 366–367)

According to the US Department of Health and Human Services, “Schools have more influence on the lives of young people than any other social institution except the family and provide a setting in which friendship networks develop, socialization occurs, and norms that govern behavior are developed and reinforced” (HP 2010). In this context, bullying among secondary school students has become a prominent concern for
schools, students, parents, and community members. Further, literature focused on this prominent topic reveals significant consequences for the physical, emotional, and social health of students involved in bullying. An emerging body of literature has confirmed that involvement in bullying can interfere with the ability of students to be academically successful in school (Espelage & Swearer, 2003). Consequently, bullying has been identified as a complex health concern, with influences that include biological, social, cultural, psychological, behavioral, and environmental determinants.

The phenomenon of bullying can be explored using an ecological perspective. Consistent with the original work of Bronfenbrenner (1979), an ecological systems theory can be applied to analyzing bullying and victimization among adolescents. From an ecological perspective, bullying occurs as a result of the interplay between individual and contextual variables. In specific, the transactional aspect of social ecology states that individuals both influence and are influenced by their environment (Bronfenbrenner, 1979). In addition to intrapersonal factors, individuals are influenced by peers, families, schools, communities, and public policy.

**Healthy People Agenda**

In 1979, the US Department of Health, Education, and Welfare released a landmark report *Healthy People: The Surgeon General’s Report on Health Promotion and Disease Prevention* in the United States. Specifically, this document identified four major risk factors confirmed to exert influence over the health of Americans at that time. These factors included:

1. Heredity,
2. Environment,
3. Access to health care, and
4. Lifestyle.

The combined effects of these risk factors are demonstrated to exert significant influence over premature morbidity and mortality among all age groups, including:

1. Older Adults,
2. Adults,
3. Adolescents and Young Adults,
4. Children, and
5. Infants.

As written in this report, “Health promotion begins with people who are basically healthy and seeks the development of community and individual measures which can help them to develop lifestyles that can maintain and enhance the state of well-being” (p. 119).

When applied to health promotion in schools, the Healthy People agenda provides a critical and sustained focal point for primary prevention activities since the publication of this important document.

After the release of the Surgeon General’s report in 1979, the first set of Healthy People goals and objectives were established in 1980. Since its inception in 1980, the Healthy People agenda has contained goals and objectives to cover decennial benchmarks. In continuation of this process of establishing 10-year plans based on measurable objectives, in 2010 the US Department of Health and Human Services
(USDHHS) launched goals and objectives to be achieved by the year 2020. The four overarching goals of Healthy People 2020 (HP 2020) include:

1. Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death.
2. Achieve health equity, eliminate disparities, and improve the health of all groups.
3. Create social and physical environments that promote good health for all.
4. Promote quality of life, healthy development, and healthy behaviors across all life stages.

These goals highlight the significant influence of the social environment over health and reinforce the need to promote health throughout all stages of life. Like the original 1979 document, promoting the health of children and adolescents has been targeted for important attention in each iteration of this sequential national agenda.

In this most recent iteration of the Healthy People agenda there were 42 topic areas for which objectives were created. Adolescent health has been specified as one of the 42 topics for which HP 2020 has included specific and measurable objectives. These objectives for adolescent health include a focus on issues ranging from adolescent wellness to reducing the threat of serious violent incidents in public schools. Importantly, these objectives delineate the importance of after school activities, adolescent-adult connection, educational achievement, and safety in school as critical health promotion strategies. An example of these selected indicators directly related to this study can be found in Table 1.
Table 1

Adolescent Health Objectives, Healthy People 2020

<table>
<thead>
<tr>
<th>AH-2</th>
<th>Increase the proportion of adolescents who participate in extracurricular and out-of-school activities.</th>
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<tr>
<td>AH-3</td>
<td>Increase the proportion of adolescents who are connected to a parent or other positive adult caregiver.</td>
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<tr>
<td>AH-5</td>
<td>Increase educational achievement of adolescents and young adults.</td>
</tr>
<tr>
<td>AH-8</td>
<td>Increase the proportion of adolescents whose parents consider them to be safe at school.</td>
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Further, as part of HP 2020, the USDHHS has specified objectives that place a particular focus on health promotion and risk reduction among youth in Early and Middle Childhood. Consistent with the adolescent health objectives, those targeting Early and Middle childhood highlight the importance of health promotion initiatives targeting youth at this particular life stage. Table 2 highlights key early and middle childhood (EMC) objectives.

In addition to the ongoing decennial revisions to the HP initiative, the importance of promoting health during this critical life stage has been extended into the national policy and political arena. In a visit to Los Angeles, California, in March 2009, President Barack Obama stated:

The only way that we can initiate true health care reform is if we control costs. And one of the most important ways for us to control costs is to deal with the issue of prevention, which means making sure that we have proper nutrition programs in our schools, making sure that we’ve got effective physical education programs for our children. *(The Washington Post, 2009)*
Table 2

*Early and Middle Childhood Objectives, Healthy People 2020*

<table>
<thead>
<tr>
<th>EMC-3</th>
<th>Decrease the proportion of children who have poor quality of sleep.</th>
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<tr>
<td>EMC-4</td>
<td>Increase the proportion of elementary, middle and senior high school schools that require school health education.</td>
</tr>
<tr>
<td>EMC-4.1</td>
<td>Increase the proportion of schools that require newly hired staff who teach required health education to have undergraduate or graduate training in health education.</td>
</tr>
<tr>
<td>EMC-4.2</td>
<td>Increase the proportion of schools that require newly hired staff who teach required health instruction to be certified, licensed, or endorsed by the State in health education.</td>
</tr>
<tr>
<td>EMC-4.3</td>
<td>Increase the proportion of schools that require cumulative instruction in health education meet the US National Health Education Standards for elementary, middle, and senior high schools.</td>
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In support of this assertion, First Lady Michelle Obama launched the campaign *Let’s Move!* in February 2010. This national initiative is dedicated to addressing the childhood obesity crisis. *Let’s Move!* incorporates a range of strategies to address this complex public health problem and is committed to providing helpful information to parents, creating supportive environments that foster healthy choices, and putting healthy foods in schools. Collectively, these strategies have been developed to promote and improve the health of all ages of children and adolescents.

Consistent with this goal, the Task Force on Childhood Obesity was created to establish a national plan of action. The work of the Task Force culminated in the identification of five organizing benchmarks for action:

1. Creating a healthy start for children;
2. Empowering parents and caregivers;
3. Providing healthy food in schools

4. Improving access to healthy, affordable foods; and

5. Increasing physical activity (Let’s Move, n.d.).

The overarching goal of this action plan is to reduce the childhood obesity rate to five percent by the year 2030.

In context of these national activities, increasing attention to proper nutrition and physical education programs and increasing opportunities for physical activity in schools have been identified as appropriate pathways to combating the Childhood Obesity crisis. Importantly, such education programs should not be the only concentration of health programs and activities in schools. Improving and maintaining the health of students in schools requires that the focus be extended to include a range of strategies including a variety of factors in the school environment. For example, health promotion strategies that focus on improving the school environment can help reduce serious violent incidents in schools.

According to the Children’s Defense Fund, America ranks last among industrialized countries in protecting children against gun violence (CDF, 2010, p. xvi). In America, every three hours a child or teen is killed by a firearm (CDF, 2010, p. xvii). Aside from gun violence, violence in the form of bullying is of paramount concern to schools as approximately 1 in every 3 school-aged children will be affected by bullying at some point during their school career (Nansel et al., 2001). Nearly 1.5 million students in grades 6–10 were physically or verbally bullied at least once a week (Colorado Trust, 2008). Bullying, like other forms of violence, is a threat to student health and school
safety. Further, involvement in bullying can manifest in short and long term physical and emotional consequences. Adults who were bullied as youths reported higher levels of depression and lower levels of self-esteem later in life (D’Esposito, Blake, & Riccio, 2011). Consistent with the adolescent health objectives listed in HP 2020, engaging strategies established in the school environment can be important in preventing and managing issues related to bullying and harassment (D’Esposito et al., 2011).

The importance of schools as a critical access point for improving the health of school-aged youth is substantial. While school, community, and public health professionals have belabored this point, seldom do political efforts to reform the American education enterprise incorporate such a mindset. Unfortunately, past and current education reform efforts do not include health promotion as a critical strategy for achieving academic excellence (Kolbe, 2002).

**History of Education Reform**

**A Nation at Risk, 1983**

Through the HP agenda, our Nation posits decennial goals and benchmarks for the improvement of the health status of millions of Americans. In doing so, taking steps to achieve these goals can help reduce health care costs, increase quality of life, and promote changes in the social and physical environment (USDHHS, HP 2020). The dynamic nature of the Healthy People agenda, however, is in contrast with education reform efforts directed at improving the education of all children and young adults.

It was President Ronald Reagan who first asserted that education was of utmost importance by identifying the critical social and economic contribution of schools and
colleges. In 1981, a committee was created to examine the quality of education in the United States. In addition, this committee was charged with making a report to the Nation and the Secretary of Education on these findings. This committee became known as the National Commission on Excellence in Education, and in 1983, the seminal report *A Nation at Risk* was released. Sanctioned by then Secretary of Education Terrel Howard Bell, this report chronicled critical threats to the public education enterprise in America (National Commission on Excellence in Education, 1983).

Identified threats included illiteracy among adults and children and low standardized test achievement scores. In this report, the Nation’s public school enterprise was accused of creating people ill-prepared to pursue excellence in schools and the workplace (National Commission on Excellence in Education, 1983, p. 11). At that time, excellence in schools was defined as the adoption of rigorous standards that were characterized as being able to “test and push back personal limits” (p. 12). In specific, *A Nation at Risk* included the following assertion regarding the status of education in America:

> Our goal must be to develop the talents of all to their fullest. Attaining that goal requires that we expect and assist all students to work to the limits of their capabilities. We should expect schools to have genuinely high standards rather than minimum ones, and parents to support and encourage their children to make the most of their talents and abilities. (p. 13)

Among the criticism surrounding the academic expectations set forth by public schools in America was the following excerpt taken from the *A Nation at Risk* document:
Secondary school curricula have been homogenized, diluted and diffused to the point that they no longer have a central purpose. In effect, we have a cafeteria-style curriculum in which the appetizers and desserts can easily be mistaken for the main courses . . . this curricular smorgasbord, combined with extensive student choice, explains a great deal about where we find ourselves today. (ANAR, National Commission on Excellence in Education, 1983, p. 18)

While this document criticized the state of the practice in regard to curricular options for students, it also highlighted several other important issues of concern.


Further, the time allocated weekly to content on average was found to be an insufficient 22 hours (p. 22). Also, it was the commission’s finding that teacher salaries were too minimal to attract highly-qualified candidates. Finally, a shortage of teachers in mathematics and science were plaguing efforts at improving quality of instruction (p. 23).

The National Commission on Excellence in Education recommended improvement in content expectations. Specific recommendations included strengthening state and local graduation requirements by requiring students to complete minimum requirements in the Five New Basics, including:

1. English,
2. Math,
3. Science,
4. Social Studies, and


In specific, this report asserted that best practice would include significantly more time being dedicated to the Five New Basics. In addition, as a foundation for reform, schools were expected to adopt more rigorous standards for measuring student performance while simultaneously increasing their expectations for academic performance of students. Further, by calling for more time being dedicated to the Five New Basics, the commission appealed to schools, colleges, and universities to increase professional preparation of teaching by making the profession more attractive and valued (National Commission on Excellence in Education, pp. 24-31).


*AMERICA 2000: An Education Strategy* was the follow-up to the landmark ANAR document. This strategy called for world class standards for students and report cards for schools, and provided monetary incentives for schools to make progress toward the national education goals (AMERICA 2000, pp. 22-24). In the official AMERICA 2000 document released by The White House, President George H.W. Bush proposed: “Think about every problem, every challenge we face. The solution of each starts with education. . . . we must transform America’s schools . . . The days of the status quo are over” (AMERICA 2000, p. 2).

In March 1994, after this national education reform agenda, AMERICA 2000, was signed into law, former Arkansas Governor William Clinton became President. Under the purview of President Clinton, AMERICA 2000 was renamed to Goals 2000.
President Clinton’s administration continued the agenda established by his predecessor in 1991 by renaming the original AMERICA 2000 Act as “Goals 2000.” The Act (Goals 2000) codified in law the six original education goals from AMERICA 2000 by placing specific emphasis on:

1. School readiness,
2. School completion,
3. Student academic achievement,
4. Leadership in math and science,
5. Adult literacy, and
6. Safe and drug-free schools.

In addition, Goals 2000 now included two new additions. These additions encouraged teacher professional development and parental participation. Finally, The National Education Goals as stated in the Goals 2000 Act included:

1. Goal #1: All children in America will start school ready to learn.
2. Goal #2: The high school graduation rate will increase to at least 90%.
3. Goal #3: All students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, the arts, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our nation’s modern economy.
4. Goal #4: The nation’s teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.

5. Goal #5: United States’ students will be first in the world in mathematics and science achievement.

6. Goal #6: Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship. Every school in the United States will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning.

7. Goal #7: The nation’s teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.

8. Goal #8: Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children. (HR 1804 Goals 2000: Educate America Act).

In addition to establishing these goals, this education strategy outlined a plan of action for communities across the country to improve their schools. If achieved, the aforementioned goals would provide all American students with the best education in the world. Interestingly, consistent with the HP agenda, Goals 2000 included benchmarks
for health promotion of children and adolescents. In specific, these goals included provision for safe and drug free schools and clauses that mention the social, emotional, and academic growth of children.

**No Child Left Behind, 2002**

The Elementary and Secondary Education Act (ESEA), originally proposed under Lyndon B. Johnson in 1965, emphasized equal access to education and the establishment of high standards and accountability. In 2002 Congress reauthorized the ESEA, renamed it as No Child Left Behind (NCLB), and signed it into law. The law authorized federally funded education programs that are administered by the states. Under the auspices of President George W. Bush, NCLB altered the course for public education students and schools. Initially, NCLB was designed to improve student academic standards, to ensure that schools were accountable for student performance, and to provide options for parents of students who attended failing schools to send their children elsewhere. Included in NCLB is the following mantra: “To close the achievement gap with accountability, flexibility, and choice, so that no child is left behind” (Public Law 107-110-Jan. 8, 2002, p. 1). In effect, NCLB made standardized student test scores the primary measure of school quality.

Despite the best intentions of the reauthorized ESEA known as NCLB, much controversy ensued among education professionals. For example, executive director of Phi Delta Kappan International William Bushaw summarized much of the negative sentiment held by many regarding NCLB. He asserted that, “Praiseworthy goals are encased in an implementation plan so ill-conceived that the public overwhelmingly
rejects every strategy used . . . six in ten Americans say NCLB is either hurting or making no difference in their community” (p. 266). In an issue of *Phi Delta Kappan*, the leading professional association in education, Packer (2007) stated, “it is absurd to pretend that schools, by themselves, can overcome all of the other challenges faced by too many children and their families: poverty, racism, crime, homelessness, lack of health care, inadequate nutrition, and more” (p. 269). In turn, schools need an accountability system that allows for flexibility and shared responsibility, as well as resources that can help close the achievement gap. Otherwise, he said, “NCLB will remain an unfair and unattainable mandate that punishes both schools and children, denying them a right to a great public school” (p. 269).

Further criticism of NCLB came from the National Education Association (NEA). In criticism of the original act as one that has significant flaws, the NEA proposed amendments to NCLB that were more consistent with the original 1965 ESEA of Lyndon B. Johnson. These included:

1. ESEA should promote innovation, high expectations, and encourage development of 21st century skills in public schools.

2. ESEA should end the obsession with high-stakes, poor-quality tests by developing high-quality assessment systems that provide multiple ways for students to show what they have learned.

3. ESEA should help provide great educators and school leaders for every student.
4. ESEA should promote public education as a shared responsibility of parents, communities, educators, and policymakers.

5. ESEA should provide increased funding to all states and school districts to meet the growing demand for globally-competitive education of U.S. students.

(More About Our Positions on NCLB, n.d.)

Critics of NCLB have argued that even a revision of NCLB would inappropriately support the original document, which included an unrestricted focus on student academic achievement and achievement test scores. It ignored, in large part, any piece of the curriculum dedicated to content areas such as music, the arts, career and technical education, physical education, history, civics, health education, and all other non-tested subjects (Public Law 107-110-Jan. 8, 2002). Unfortunately, this unrestricted focus on tested subjects has done little to improve test scores among children enrolled in US schools.

Further, critics of NCLB have asserted that it has disadvantaged educators by demanding that teachers become “readers of scripts rather than professionals engaged in the critical work of educating the children in their care” (Ohanian, 2007, p. 270). In this regard, Ohanian asserted: “We are sure that children get more out of school when they enjoy being there, and we are sure that teachers are able to better use their talents when they can enjoy being in healthy and supportive classrooms” (p. 270).

On the other hand, there are those who felt that NCLB should be completely dismantled. Those who support the dismantling of NCLB believed it unfairly placed blame on teachers and students for problems over which they have no control. In context
of these recommendations, the NEA offered more broadly focused recommendations including:

1. Adding school breakfast and lunch programs,
2. Quality school-based health care,
3. Promoting safe and efficient transportation, and
4. Establishing safe and drug-free schools programs. (More About Our Positions on NCLB, n.d.)

As the year 2008 began, the focus on reauthorizing the NCLB act became diffuse since the pending presidential election seemed to threaten its reauthorization. As the process moved forward, representatives from the NEA offered this recommendation:

Make your voice heard! Speak up for the students who are suffering under too much testing and not enough individual attention. Speak up for the schools that are doing their best every day to meet the needs of students who come to school hungry, who have no books at home, and who have no safe place to study after school. Don’t let Congress ignore us! (No Child Left Behind Act/ESEA: Where We Stand, n.d.)

The NCLB law technically expired in September 2007. To date, the expired law has not been reauthorized; however in 2010, President Obama released a blueprint for reauthorization of the law. In October 2011, the Senate education committee voted in favor of a bipartisan bill that would dismantle the provisions of NCLB that used standardized test scores in reading and math to label tens of thousands of public schools as failing. In addition, the Obama administration decided to grant waivers to states that
would relieve them of the stringent NCLB student performance accountability standards. Waivers were granted on the condition that states agreed to implement components of the administration’s education agenda, such as evaluating teachers in part based on their students’ test scores (Resmovits, 2012).

Currently, the discussion surrounding the reauthorization of NCLB is still under debate in the second term of the Obama administration. The construction of these waivers leaves doubt as to whether or not NCLB has been nullified. While some of the provisions set forth in the bill, including the use of teacher performance evaluation, are departures from NCLB, federal attempts to reform education have still retained their focus on accountability.

**Race to the Top**

With the first election of President Barack Obama in 2008, a critical evaluation of NCLB and its results was conducted. In 2009, President Obama launched Race to the Top (RTT). At its foundation, RTT included a state-by-state competition designed to advance and focus the national education reform agenda. In this regard, the White House, in conjunction with the United States Department of Education, established a competitive four-year grant program designed to incentivize states to advance education reforms focused on four specific matters:

1. Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
2. Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
3. Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and

4. Turning around our lowest-achieving schools.

Today, RTT is a program of awards granted to states and local school districts that have demonstrated that they have made progress in these four specified areas. In a press release from the US Department of Education in January 2012, the state-specific reports from the first-year progress on Race to the Top were published. These reports indicated that to date, a total of 21 states and the public schools of Washington DC have been awarded grants. States that received grants were offered continued support from district representatives to help work toward their education reform goals, as specified in RTT (U.S. Department of Education, 2012).

Ohio is one state for which Race to the Top dollars were granted. Receiving a $400 million Race to the Top grant in August 2010, the state of Ohio documented accomplishments in support of the RTT grant. Specifically, Ohio has adopted the Common Core State Standards (CCSS) in English language arts (ELA) and mathematics. Further, a teacher and a principal evaluation system for the state (OTES, OPES) have been developed. These systems were piloted during the 2011–2012 school year. Finally, Ohio used RTT federal funding to implement programs such as Teach Ohio. Designed to help assist schools serving high concentrations of poor or minority children, Teach Ohio provided these schools with qualified, licensed professionals (U.S. Department of Education, 2012).
Indeed, the search for education panaceas has had no boundary throughout American history. Importantly however, what has remained clear in past decades is that these many political attempts to reform education in American schools have fallen short. Past and current education reform agendas have focused on failing school systems and teachers as primary change agents to increase the performance of students in school (ANAR, AMERICA/GOALS 2000, NCLB, Race to the Top). Simply closing low-performing schools or tightening up the curriculum has not solved the problems confronting our education system. According to Kolbe (2002), past education reform efforts have missed a critical factor with regard to student achievement, the health of students. Academic literature in both health and education consistently demonstrate a link between the health status of students and their achievement in schools. Situating health in the context of the academic mission of schools becomes a critical focal point for enhancing student academic outcomes.

**Connecting the Education Reform Agenda to Adolescent Health**

Ernest Boyer (1983), past President of the Carnegie Foundation for the Advancement of Teaching, has asserted that, “Clearly, no knowledge is more crucial than knowledge about health. Without it, no other life goal can be successfully achieved.” In addition, Harriet Tyson (1999) echoed the sentiment:

Many . . . are facing the reality that 15 years of energetic reform efforts have produced some modest improvements, but not the hoped-for results. Merely setting standards, using better tests, telling teachers to teach better . . . or getting
rid of principals or superintendents when test scores don’t rise hasn’t brought us to the promised land. (p. K2)

Tyson concluded by saying that education reforms are not paying enough attention to health issues that confront school aged children. These physical, emotional, and social health concerns are identified as equally important threats to student achievement (Tyson, 1999).

In this context, while 30 years have passed since the publication of *A Nation at Risk*, critics of education reform agendas have reinforced the need for more comprehensive strategies. In a book titled *The Death and Life of the Great American School System: How Testing and Choice are Undermining Education*, Diane Ravitch (2010) rendered this opinion regarding education reform:

> School reformers sometimes resemble the characters in Dr. Suess’s Solla Sollew, who are always searching for that mythical land “where they never have troubles, or at least very few.” Or like Dumbo, they are convinced that they could fly if only they had a magic feather. In my writings, I have consistently warned that, in education, there are no shortcuts, no utopias, no silver bullets. For certain, there are no magic feathers that enable elephants to fly. (p. 3)

Although *No Child Left Behind* (2002) recognized the need for accountability and highly qualified teachers, both health and physical education were left off the core content curricula. With fewer than 30% of all high school students participating in daily physical education and only 36% meeting the expected levels of daily physical activity,
the health of students in our country is diminishing (Robert Wood Johnson Foundation, 2007).

Lloyd Kolbe (2002), researcher and pioneer in the field of health education, acknowledged the misguided efforts at education reform by arguing that school health programs could help improve the educational outcomes of students in schools. Kolbe asserted that school health programs can help prevent health problems of young adults and adolescents by improving health behaviors and health outcomes. He argued that the major causes of health problems among students ages 10–24, including unintentional injuries (car accidents), intentional injuries (homicide/suicide), and alcohol and drug use, cause both physical suffering and educational and social problems that can interfere with learning (p. 7). Additionally, he asserted that efforts directed at improving student health and education are interdependent; thus improving education will take a comprehensive effort to improve education, health, and social outcomes simultaneously (Kolbe, 2002).

Reinforcing the importance in placing health in context of educational achievement is a statement made by former Surgeon General, Dr. Antonia Novella (Healthy Children Ready to Learn: An Essential Collaboration, 1992):

Health and education go hand in hand: one cannot exist without the other. To believe any differently is to hamper progress. Just as our children have a right to receive the best education available, they have a right to be healthy. As parents, legislators, and educators, it is up to us to see that this becomes a reality. (p. ?). Schools have been identified as an excellent venue to provide students with the opportunities they need to develop healthy decision-making skills (Kolbe, 2002). In turn,
schools can also help students avoid health risk taking behavior. In this context, the National Center for Chronic Disease Prevention and Health Promotion (CDC) has identified six broad categories of health-risk behavior responsible for 70% of adolescent morbidity and mortality, they include:

1. Unintentional and intentional injuries,
2. Drugs and alcohol abuse,
3. Sexually transmitted diseases and unintended pregnancies,
4. Diseases associated with tobacco use,
5. Illness resulting from inadequate physical activity, and
6. Health problems due to inadequate dietary patterns.

As a consequence of engaging in these categories of behaviors, students are at risk for adverse health and academic consequences, such as poor emotional and social development and dropping out of school. Collectively known as health-risk behaviors, these six categories represent areas in which quality school policies can intervene with effectiveness.

Former U.S. Surgeon General David Satcher (2002) said to preface the document *The Learning Connection: The value of improving nutrition and physical activity in our schools*, “We must understand this important truth: That improving children’s health likely improves school performance. It may even help a schools bottom line” (Preface).

In support of this assertion, professional organizations and nonprofit groups have historically supported efforts directed at health education in schools (American Cancer Society [ACS], 1992). The American Cancer Society, the American Diabetes
Association, and the American Heart Association issued a joint statement on health education in schools highlighting the significance of prevention and school-based health interventions that are evidence-based and comprehensive. In this joint position statement, these organizations asserted that by employing prevention strategies, such as those that capitalize on the health behaviors of children and adolescents, the potential to improve health and learning is maximized (ACS, 1992).

Among other organizations, the ACS has taken a leadership role in promoting coordinated school health programs in the nation’s schools. In recognition of unique and important links between health and education, the ACS stated:

[Children] . . . who face violence, hunger, substance abuse, unintended pregnancy, and despair cannot possibly focus on academic excellence. There is no curriculum brilliant enough to compensate for a hungry stomach or a distracted mind. (1992, p. 4)

Clearly, health education and prevention play central roles in producing productive and healthy children. To support this statement, significant literature has documented the relationship between health and academic achievement.

**Health and Academic Achievement**

In 1990, a report titled *Code Blue: Uniting for a Healthier Youth* provided a foundation for discussing the role of school and community in improving adolescent health. Issued as a joint statement from the American Medical Association and the National Association of State Boards of Education, *Code Blue* was an important
document that affirmed the importance of attending to the health of students as an essential ingredient to their academic success.

Recognizing the importance of health in the academic environment, over 300 professionals and numerous professional organizations made contributions to the book *Health is Academic: A Guide to Coordinated School Health Programs* (Marx, Wooley, & Northrop, 1998). Specifically, this publication set the much needed precedent to explore the nature of coordinated school health programs that work to maximize the potential for schools and communities to provide each child with the best education possible (Marx et al., 1998). The authors helped illustrate the need for schools to be proactive in promoting the health of students in stating:

> Once it was common to define a school’s mission in narrow terms focused on educational goals and methods alone. But as more and more teachers and school administrators have come to appreciate, there is an inextricable link between students’ health and their ability to learn. If schools do not deal with children’s health by design, they deal with it by default. (p. 2)

Despite the lacking federal effort to acknowledge health in the academic environment, the CDC’s Division of Adolescent and School Health (DASH) has emphasized the importance of the relationship between student health and academic performance. A body of research has confirmed that health-related factors such as hunger, physical and emotional abuse, and chronic illness can lead to poor school performance (USDHHS Centers for Disease Control and Prevention DASH, 2009). In addition, those health-risk behaviors of substance use, violence, and physical inactivity
have been linked to academic failure (USDHHS Centers for Disease Control and Prevention DASH, 2009). Such health conditions and behaviors have been documented to affect other educational outcomes such as school attendance, grades, test scores, and ability of students to pay attention in class (USDHHS Centers for Disease Control and Prevention DASH, 2009). In an executive summary prepared by Murray, Low, Hollis, Cross, and Davis (2007), the link between academic performance and health status has been characterized as one that is complex and cyclical (Murray et al., 2007). Given this notion and that of Health is Academic, it is safe to say that the health status of children is determined by a multitude of health related factors and risk behaviors. Poor health has been shown to affect academic performance and additional research has confirmed that the prevalence of chronic conditions, such as overweight and obesity, diabetes, asthma, mild emotional disorders, physical inactivity, and undernourishment are linked to academic performance (Murray et al., 2007).

DASH surveillance systems, such as the YRBSS, have been established to monitor health risk behaviors of youth. Such systems can track the relationships between health and academic outcomes, as well. According to fact sheets released by DASH in 2009 on health-risk behavior and academic achievement, there was a negative association between health-risk behaviors and academic achievement (USDHHS Centers for Disease Control and Prevention DASH, 2009). This means that students who reported having higher grades are less likely to engage in health-risk behaviors than their classmates who reported having lower grades. Likewise, students who did not report engaging in health-risk behaviors receive higher grades than their classmates who did report engaging
in such behaviors. While these relationships have not been demonstrated to be causal in nature, the establishment of these associations is critical. Importantly, these relationships have placed health behaviors in context of academic achievement (USDHHS Centers for Disease Control and Prevention DASH, 2009).

Academic success has been shown to be a good indicator for the overall well-being of youth (USDHHS Centers for Disease Control and Prevention DASH, 2009). In addition, academic success has been identified as a predictor of adult health outcomes (USDHHS Centers for Disease Control and Prevention DASH, 2009). Recognizing the importance of promoting health in the educational environment of students, a few leading education organizations have attempted to embed health into the educational environment for all students.

The Association for Supervision and Curriculum Development (ASCD) is a leading professional education and advocacy organization. ASCD has recognized the importance of addressing health in context of education in children and young adults through the establishment of the Whole Child Initiative (WCI). This initiative, developed in 2007, calls on educators, policy makers, families, and communities to work together to prepare young people to for the challenges and opportunities that will confront them now and in the future. Collectively, these stakeholders possess the knowledge, skill, and ability to help move the five Whole Child indicators to becoming a reality. The five indicators are:

1. Each student enters school healthy and learns about and practices a healthy lifestyle.
2. Each student learns in an environment that is physically and emotionally safe for students and adults.

3. Each student is actively engaged in learning and is connected to the school and broader community.

4. Each student has access to personalized learning and is supported by qualified, caring adults.

5. Each student is challenged academically and prepared for success in college or further study and for employment and participation in a global environment. (ASCD, 2011)

Addressing the connection between health and learning, the Whole Child Initiative is an approach from the field of education that recognizes health as important and integral to the success of students in schools. Charles Basch (2011) provided a clear picture of how integrating health into the academic environment for all students can reduce the achievement gap between socioeconomically advantaged and disadvantaged school systems. He asserted,

No matter how well teachers are prepared to teach, no matter what accountability measures are put in place, no matter what governing structures are established for schools, educational progress will be profoundly limited if students are not motivated and able to learn. (Abstract)

In 2011, Basch authored several articles that reinforced the critique of education reform efforts that do little to confront health related barriers to learning. Instead, Basch (2011) reinforced the need for educators, policy-makers, and parents to work together to
promote and improve student health. Establishing collaborative networks between parents, communities, schools, and health professionals is a profound way to meet the health and educational needs of children and youth in an efficient and effective way. In support of this assertion, coordinated school health programs provide a foundation to bridge the gap between education and health. Recognizing the importance of health in context of student learning, bridging this gap will require the utilization of pre-existing resources within and around the school environment to maximize the health of students.

**Coordinated School Health**

As demonstrated, a robust body of literature has confirmed that student health-risk behaviors affect education outcomes. One mechanism to address complex health-risk behaviors and to improve academic outcomes is for schools to move toward programs and policies that utilize a Coordinated School Health (CSH) approach. CSH is recommended by DASH as a strategy designed to foster and improve the healthy development of school aged children and adolescents. As social institutions, schools included 98.2% of students aged 7–13 years and 96.3% of students aged 14–17 years (NCES, 2011). As such, schools have been demonstrated as ideal places for providing health education programs and interventions that could reach millions of children and adolescents.

In a landmark article published in 1987, Allensworth and Kolbe describe an eight-component model of comprehensive school health. As designed by these authors, the eight components of coordinated school health were configured to include:

1. Counseling, Psychological, and Social services;
2. Health education;
3. Health promotion for staff;
4. Health services;
5. Healthy school environment;
6. Nutrition services;
7. Parent/community involvement; and
8. Physical education. (p. 409)

In this context, a coordinated school health program is defined as, “an integrated set of
planned, sequential, school-affiliated strategies, activities and services designed to
promote optimal physical, emotional, social and educational development of students”
(Allensworth & Kolbe, 1987, p. 2). Patching together the framework of coordinated
school health can make a critical difference in the improving lives of children and
adolescents.

Coordinating school health activities and programs can be one of the most
efficient ways to prevent or reduce engagement in risk behaviors and prevent serious
health problems among students. CSH is recognized as a framework to help young
children and adolescents achieve their maximum potential by focusing on avoiding those
health-risk behaviors that contribute to the leading causes of morbidity and mortality. In
addition, CSH seeks to promote the development of skills needed to make
health-enhancing decisions.

Comprehensive school health education, one element of coordinated school
health, is one mechanism through which participation in health-risk behaviors can be
reduced. School health education provides students with the knowledge, attitudes, and skills necessary to make health-promoting decisions and adopt health-enhancing behaviors. According to the Joint Committee on Health Education Terminology (Gold & Miner, 2002), comprehensive school health education includes:

The development, delivery, and evaluation of planned, sequential and developmentally appropriate instruction, learning experiences and other activities designed to protect, promote and enhance health literacy, attitudes, skills and well-being of students, pre-k through grade 12. (p. )

Unfortunately, several important barriers prevent school health education from being most effective. School health professional Susan Spalt, in a 1996 article published in the Journal of School Health, discussed the current state of health education in schools. Namely, she asserted that health education has become code for controversy. Topics such as sexuality, which is often explicitly incendiary, are often disregarded in the school setting (Spalt, 1996) in an effort to keep the peace with vocal and oppositional parents. In this context, controversy, perceived or actual, has been demonstrated to be a barrier to school health education (Spalt, 1996).

An additional barrier to comprehensive school health education is a lack of administrative support. Administrative support, in the form of instructional time and money, has been a barrier to school health programs and activities (Symons & Cinelli, 1997). In this context, some administrators believe health education should operate under the purview of parents. Because of this, instructional time has been limited in school-based health education. A lack of state and federal mandates has also presented
barriers to school health education. According to the school health education mandate presented by the National Association for State Boards of Education (NASBE) State School Health Policy Database, in Ohio:

ORC §3313.60 (2001) requires schools to offer a curriculum that includes health education coursework, however, there are no specifics about grades, levels, or amounts of instructional time. ORC §3313.603 (2001) requires high school students to complete ½ unit of coursework in health in order to graduate. (Health Education, 2012)

In addition, there are no state-level measures of student proficiency in health education, nor are there state level health education curriculum requirements. Unlike other core academic subjects, the movement to provide comprehensive school health education has been presented with barriers at the state, local, and building levels (Symons & Cinelli, 1997).

Recently, a complementary ecological model of the coordinated school health program was proposed by Lohrmann (2010). Although not described as such, the original coordinated school health program formulated by Allensworth and Kolbe (1987) is ecological in nature. Importantly, Lohrmann proposed an ecological model of CSH as one that incorporated mechanisms through which policy, regulatory, organizational, social, economic, and/or political changes could occur (Lohrmann, 2010).

School Health Policies and Practices Study (SHPPS), a data collection effort overseen by DASH, has monitored health education policies and practices at the state, district, school, and classroom level beginning in 1994. Every six years, data are
assessed across the eight components of CSH and reveal important insights for comprehensive school health education. According to the CSH results reported for SHPPS 2006, 92.0% of all schools (elementary, middle, and high) required students to receive instruction on at least 1 of 14 health topics (Kann, Telljohann, & Wooley, 2007). In comparison, only 35.8% of high schools required instruction on all 14 health topics (Kann et al., 2007). In addition, the median number of hours of required health instruction was mostly spent on the topic of alcohol and other drug-use prevention (Kann et al., 2007). The least amount of instructional time was spent on the topic of suicide prevention. Further, the median number of total hours of required health instruction is approximately 40.0 hours in high school courses (Kann et al., 2007). In this context, students were only receiving 1–2 hours of health instruction per week. In one semester, students received approximately 12–27 minutes of health instruction per day (Kann et al., 2007, p. 433). Clearly, these data present a concern for the trivial state of health education in schools.

Although the findings from SHPPS 2006 revealed gaps at the policy and practice levels for school health education, the results demonstrate promising practice for physical activity and physical education in schools. In comparison with the results for school health education, SHPPS 2006 revealed that most states had adopted a policy stating that districts and schools would follow national or state specific physical education standards or guidelines (Lee, Burgeson, Fulton, & Spain, 2007). In fact, the majority of states (76%) required or encouraged districts and schools to follow physical education standards or guidelines based on the National Standards for Physical Education. Almost
half (48.4%) of all schools offered intramural activities or physical activity clubs to students and 91.3% of high schools offered students opportunities to participate in interscholastic sports (Lee et al., 2007). The results for Physical Education and Physical Activity from SHPPS 2006 revealed that many states and districts do provide opportunities for students to be physically active outside of physical education courses (Lee et al., 2007). Participation in organized physical activity, including interscholastic sports or intramural programs, may be related to higher levels of participation in overall physical activity (Pate, Trust, Levin, & Dowda, 2000). Increased levels of physical activity have been shown to improve mental health and reduce engagement in risky health behaviors in youth and adolescents (Pate et al., 2000).

The SHPPS 2006 results identified gaps despite the existence of many communication channels needed to support CSH. Achieving this type of coordination requires cooperation, collaboration, and communication among its stakeholders. If done efficiently, collaboration can enhance the influence of multiple influential stakeholders in the school and community. While the framework of coordinated school health has been identified as a valuable asset to health promotion in schools, the most recent ecological focus proposed by Lohrmann (2010) warrants a deeper look at the extent to which the social school environment affords a protection against health risk behaviors.

**Protective Factors of Youth**

A closer look at protective factors such as school connectedness and extracurricular involvement could help elucidate the extent to which these mechanisms affect health risk behavior. In specific, examining the role of bullying behaviors in
context of these variables warrants attention. Compared to risk factors, less is known about the role of protective factors in the school environment.

A developing body of literature has identified a connection between health risk behavior and the school environment (McNeely, Nonnemaker, & Blum, 2002; Resnick et al., 1997). Protective factors have been shown to mediate this relationship. Examples of protective factors include environmental aspects such as parental presence in the home, personality characteristics such as having a positive view of one’s future, and behaviors such as active participation in school activities (USDHHS Centers for Disease Control and Prevention DASH, 2010). Aptly named, protective factors serve to protect students from engaging in risk-taking behavior. In addition, the presence of protective factors can provide a buffer against the negative consequences of risk-behavior (USDHHS Centers for Disease Control and Prevention DASH, 2010).

Peers have been shown to play a critical role in preventing bullying. Pack, White, Raczynski, and Wang (2011) found that just one good friend can help ‘assuage’ the harmful consequences of harassment (Pack et al., 2011). Students who have friends at school and who experience bullying were less likely to internalize these feelings. The protective benefit of friends has become critical in buffering students from the devastating emotional consequences that result from bullying, such as becoming sad and depressed (James et al., 2008).

On the other hand, peers can promote and encourage bullying behavior (Salmivalli, 2010). Bullying has been described as a social event that includes an audience (Salmivalli, 2010). Peers who witness bullying as bystanders have been shown
to make a difference when intervening in incidents of bullying (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukialnen, 1996). In some ways, however, this difference was not positive. Farrington and Ttofi (2009) found that engaging bystanders to disapprove of bullying and support victims can increase victimization. Further, the authors found that using students as peer mediators can increase victimization, as well (Farrington & Ttofi, 2009). On one hand, peers have been shown to be a valuable asset to students who have the potential to be victimized. On the other hand, peers engaged as bystanders or mediators have been shown to be a school-level barrier in reducing incidents of bullying.

As identified through the work of Allensworth and Kolbe (1987) and more recently with the work of Lohrmann (2010), CSH has become a focal point for improving the health status of students. In a document titled Healthy Children Ready to Learn: Facilities Best Practices, issued by the California Department of Education (2007), State Superintendent of Public Instruction Jack O’Connell stated:

As academic expectations rise, educators must continue their ongoing commitment to our students’ well-being . . . Encouraging healthy practices extends beyond the curriculum, and one of my goals is to create a school environment that supports the health of our children. (p. v)

The influential role of schools as a critical access point to youth has been established. Second to the family, schools are identified as the primary institution responsible for the healthy development of young people in the United States (Resnick et al., 1997). In this context, the role of the school environment is identified as a significant influence to the social development of children and young adults (Resnick et al., 1997).
Purpose of the Study

The purpose of this study was to analyze the relationship between bullying others, perceived school connectedness, academic achievement, and selected demographics among female high school athletes.

Research Questions

1. Are there differences in levels of bullying among female athletes according to age?
2. Are there differences in levels of bullying among female athletes according to race?
3. Are there differences in levels of bullying among female athletes according to current academic achievement?
4. Are there differences in levels of connectedness among female athletes according to age?
5. Are there differences in levels of connectedness among female athletes according to race?
6. Are there differences in levels of connectedness among female athletes according to current academic achievement?
7. Do the means on bullying differ according to age as age is averaged across race?
8. Do the means on bullying differ according to race as race is averaged across age?
9. Do the differences in the means on bullying among student race vary as a function of their age?

10. Does school connectedness correlate with bullying?

**Definition of Terms**

*Academic achievement:* Self-reported measures of academic standing using letter grades to represent a proxy for grade point average.

*Athlete status:* Participation in an Ohio High School Athletic Association (OHSAA) sanctioned sport during the current grading period.

*Bully:* A victim is one who is exposed repeatedly over time to negative actions by one or more other students (Olweus, 1994).

*Perceived school connectedness:* The belief held by students that adults in the school care about their learning as well as about them as individuals (Blum, 2004). The constructs used to define and measure school connectedness included elements pertaining to teacher support and social belonging constructs (Resnick et al., 1997; Whitlock, 2006).

*Physical bullying:* Hitting, pushing, shoving, or slapping another student, or throwing objects at another student.

*Relational bullying:* Spreading rumors, excluding someone from a group, keeping others from liking a student, withdrawing a friendship, leaving a student out of an activity.

*Verbal bullying:* Picking on, threatening, name-calling, teasing, or yelling at another student.
Victim: A victim is a person who is exposed repeatedly over time to negative actions by one or more others, excluding cases where two children of similar physical and psychological strength are fighting (Olweus, 1994).

Basic Assumptions

This research was conducted based on the following set of assumptions:

1. Data collected was in compliance with the Kent State Institutional Review Board Approval granted on March 19, 2012.
2. Data collected was in compliance with the School District according to the research guidelines set forth by the Office of School Improvement and approved on June 6th, 2012.
3. Subject responses were provided voluntarily.
CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this study was to examine the relationship between bullying others, perceived school connectedness, selected demographics, and academic achievement among female high school athletes.

Bullying

History of Bullying as a Research Agenda

The body of literature about the issue of bullying has grown exponentially since first studied in the 1980s. Since that time, bullying has evolved into an area of interest both internationally and nationally. In particular, Daniel Olweus, a Norwegian pioneer in bullying research has been given much of the acclaim for bringing attention to school bullying issues. In 1983, Olweus developed one of the most successful anti-bullying prevention programs to date, the “Olweus Bullying Prevention Program” in Norway (OBPP). In the mid 1990s, Dr. Olweus began working with researchers to implement the OBPP in the United States. Because of its proven success, the OBPP is still widely used (Brown University, 2005).

Bullying research hit a peak during the early years of the 21st century. Since that time, the volume of research dedicated to bullying has declined (Stassen Berger, 2007). Notwithstanding the decline, a robust body of evidence continues to be developed by scholars in America. In this context, there have been current developments in the literature about this complex phenomenon.
**Definition**

According to Olweus (1993), “a person is bullied when he/she is exposed repeatedly over time to negative actions by one or more others, excluding cases where two children of similar physical and psychological strength are fighting” (p. 9). Although much of the research about bullying to date has been based on this definition, researchers have defined the act in various ways. For example, Smith and Sharp (1994) defined bullying as:

A student is being bullied or picked on when another student says nasty and unpleasant things to him or her. It is also bullying when a student is hit, kicked, threatened, locked inside a room, sent nasty notes, and when no one ever talks to him. (p. 1)

Smith and Sharp (1994) extended the original concept of Olweus (1993) by presenting specific negative actions performed by students. Further, Coloroso (2003) defined bullying as “a conscious, willful, and deliberate hostile activity intended to harm, induce fear through the threat of further aggression, and create terror” (p. 13).

Several common elements to these three definitions are found in the literature. First, bullying others was characterized with a negative behavior. In the definition proposed by Smith and Sharp (1994), a description of possible negative behaviors including “saying nasty and unpleasant things to him or her, hit, kicked, threatened, locked inside a room, sent nasty notes, and when no one ever talks to him” (p. 2) were described. Similarly, the definition constructed by Coloroso (2003) described bullying acts as those “intended to harm,” also implying negative actions.
Second, bullying behavior occurs through repetition. Bullying cannot take place in one single action. Instead, repetition implies that the behavior occurs multiple times. Sometimes bullying can take place over weeks, months, or even years (Espelage & Swearer, 2003). Olweus (1993) described this repetition element as “exposed repeatedly over time.”

Finally, bullying involves an imbalance of power (Espelage & Swearer, 2003). This imbalance of power can be demonstrated by either physical or psychological mechanisms (Smith, Smith, Osborn, & Samara, 2008). For example, when bullying occurs among students whose physical structures (larger/smaller) are dissimilar, there is said to be an imbalance of physical power. Similarly, if a teacher were to bully a student, this would be an imbalance of psychological power.

Interestingly, the words “aggression” and “bullying” have been used interchangeably. A few researchers have attempted to distinguish between these concepts. Smith et al. (2008) defined aggression as “negative acts that are intentional in causing harm to others” (p. 3). In this context, Viljoen, O’Neill, and Sidhu (2005) identified that all types of bullying were a form of aggression. By virtue of this definition, aggression and bullying can be considered compatible but not identical concepts. As discussed in the literature, the definition of aggression is missing the “repeated over time” element that would make it interchangeable with the term bullying.

Causes of Bullying

Bender and Lösel (2011) characterized bullying as a form of misbehavior that can be either proactive or reactive. Proactive behavior includes those actions done to achieve
some kind of reward. As such, the specific behavior leads to desirable feelings or some perceived personal outcomes (Bender & Lösel, 2011). According to Bender and Lösel, reactive behaviors include those used by students to protest against being forced into situations with which they cannot cope adequately (Bender & Lösel, 2011). Currently, the literature suggests that most acts of bullying involve proactive aggression. In this context, bullies seek out their targets without much provocation (Espelage & Swearer, 2003). It is understandable that children and adolescents use bullying to acquire resources or to demonstrate dominant behavior because of their developmental vulnerability in establishing relationships.

Whereas the lens of proactive versus reactive behavior is one through which bullying can be examined, other researchers have suggested that the causes of bullying cannot be reduced to solely those two behavioral reactions (Adelman & Taylor, 2011a). It is hypothesized that among girls, most bullying falls within friendship/acquaintanceship groups. Friendship groups, such as those created through interscholastic sports participation, could be potential sites for bullying behavior among girls. When in these groups, girls will attempt to manipulate their social environment to obtain power, control, popularity, and security (Adelman & Taylor, 2010). Social manipulation, in the form of bullying, may occur to get to these desired outcomes. Among girls, relational bullying may be used to develop connectedness and close intimate relationships within a group (Espelage & Swearer, 2003).

Incidents of bullying are hypothesized throughout the literature to be created and affected by many mechanisms. Dake, Price, and Telljohann (2003) identified bullying as
a process that occurs through three channels. In particular, he stated that bullying can be attributed to characteristics of the bullies, the relationships between bullies and victims, and the reactions of classmates who witness bullying (Dake et al., 2003). In continuation of the social ecological nature of the behavior, these three interpersonal characteristics were significantly associated with bullying:

1. Personality,
2. Verbal communication, and
3. Thoughts/behaviors (Booth, Van Hasselt, & Vecci, 2011).

Additional levels of influence with regard to bullying include those at the interpersonal level, such as relationships between peers and family (Booth et al., 2011). Organizational characteristics, such as those found in the school environment, have also been demonstrated to be associated with bullying behavior (Baldry & Farrington, 2005; Booth et al., 2011). School environment, according to Booth et al., refers to “the customs, beliefs, and patterns of behavior that comprise the campus culture” (Booth et al., 2011, p. 3). With specific regard to bullying, advocates who have a comprehensive understanding of the school environment are likely to be better positioned to help identify those adolescents who are more or less likely to bully and be bullied.

Bullying is a form of violence in the school setting, and the relationship between bullying and other violent acts cannot be understated. Broadly speaking, the ability to predict acts of school violence is a challenge. Booth et al. (2011) suggested that there are several warning signs for which to look. Specific warning signs that warrant attention include:
1. being a bully and a victim of bullying,
2. a history of substance use,
3. social isolation, and
4. withdrawn behavior (Booth et al., 2011).

While acts of violence might not be easily predicted, the association between violent incidents and a history of being a bully or victim of bullying is known.

Recent research has focused extensively on the predictors of bullying. Importantly, distinct predictors that occur among bullies and their victims have been revealed. Research has confirmed both individual and contextual predictors to bullying behaviors in childhood and adolescence (Cook, Williams, Guerra, Kim, & Sadek, 2010).

Cook et al. (2010) summarized both individual and contextual predictors in a meta-analysis of bullying research. This comprehensive analysis focused on data collected between 1970 and 2006. Table 3 includes a list of such individual and contextual predictors identified in this important study.

Significant findings from this work provide important insight into the predictive aspects of bullying. First, it revealed that the strongest individual predictors of being a bully are externalizing behavior and other-related cognitions (Cook et al., 2010, p. 71). Peer status and social competence significantly predict being a victim of bullying (p. 71). With regard to contextual predictors of bullying, peer influence and community factors were identified as having the strongest correlates to bullying behavior (p. 73). Peer status and school climate were identified as the strongest correlates to contextual predictors of victimization (p. 73). Internalizing behavior in adolescence, as opposed to childhood,
Table 3

*Individual and Contextual Predictors of Bullying (Cook et al., 2010)*

<table>
<thead>
<tr>
<th>Individual Predictors</th>
<th>Contextual Predictors</th>
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<tr>
<td><em>Externalizing Behavior:</em> defined as actions that are undercontrolled in nature and characterized by a host of defiant, aggressive, disruptive and noncompliant responses.</td>
<td><em>Family/home environment:</em> defined as aspects of the family and home environment, including parental conflict, family cohesiveness, parental monitoring, family socioeconomic status, and parenting styles.</td>
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<td><em>Internalizing behavior:</em> defined as actions that are overcontrolled in nature and directed inward, including withdrawn, depressive, anxious and avoidant responses.</td>
<td><em>School climate:</em> defined as the degree of respect and fair treatment of students by teachers and school administrators as well as the child’s sense of belonging to school.</td>
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<td><em>Social competence:</em> defined as an overall evaluative judgment of an individual’s social skills that enable him/her to interact effectively with others and to avoid or inhibit socially unacceptable behaviors.</td>
<td><em>Community factors:</em> defined as characteristics of the communities and neighborhoods in which children and youth lived, including socioeconomic indicators, rates of violence or crime and drug trafficking.</td>
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<td><em>Self-related cognitions:</em> defined as children’s thoughts, beliefs, or attitudes about themselves, for example, self-respect, self-esteem, and self-efficacy.</td>
<td><em>Peer status:</em> defined as the quality of the relationships children and adolescents have with their peers, including rejection, isolation, popularity and likeability.</td>
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<td><em>Other-related cognitions:</em> defined as children’s thoughts, beliefs, feelings, or attitudes about others, including normative beliefs about others, empathy and perspective taking.</td>
<td><em>Peer influence:</em> defined as the positive or negative impact of peers on the adjustment of children, such as the deviant peer group affiliations, prosocial group activities, and reinforcement for (in) appropriate behaviors.</td>
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<td><em>Academic performance:</em> defined as grade point average, standardized achievement test scores and academic performance ratings.</td>
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was significantly associated with bullying behavior (p. 73). Specifically, Cook et al. identified the typical bully and victim as:

**Bully:** One who exhibits severe externalizing behavior, has internalizing symptoms, has both social competence and academic challenges, possesses negative attitudes and beliefs about others, has negative self-related cognitions,
has trouble resolving problems with others, comes from a family environment characterized by conflict and poor parental monitoring, is more likely to perceive his or her school as having a negative atmosphere, is influenced by negative community factors, and tends to be negatively influenced by his or her peers. (pp. 75-76)

**Victim:** One who is likely to demonstrate internalizing symptoms, engage in externalizing behavior, lack adequate social skills, possess negative self-related cognitions, experience difficulties in solving social problems, come from negative community, family, and school environments and be noticeably rejected and isolated by peers. (p. 76)

In spite of such identified predictors, bullies and victims do not always fit neatly into these distinct categories. Importantly, however, these predictors do provide a basis for examining the potential for bullying and victimization among individuals. The identification of several individual and contextual predictors by Cook et al. (2010) is consistent with the social ecological perspective of health behavior in that no single factor can provide an adequate understanding or prediction with such a complex behavior and dynamic behavior as bullying.

As acknowledged by Cook et al. (2010), bullies are part of a heterogeneous group of students. Children who bully others differ in demographics, developmental level, motivation, sex, and ethnicity (Ttofi et al., 2011; Viljoen et al., 2005). In addition, victims of bullying are part of a heterogeneous group. They differ in context of
individual characteristics as well as how they will be affected by bullying (Adelman & Taylor, 2011a).

**Student Roles in Bullying**

An expanding body of literature on the topic has contributed significantly to understanding the characteristics of bullies and victims. As such, recent studies have identified multiple student roles in bullying. The belief that children and adolescents participated in bullying by being either exclusively the victim or the bully is now antiquated. Multiple studies have acknowledged that children can be involved in bullying as bullies, victims, bully-victims, or bystanders (D’Esposito et al., 2011; Holt & Espelage, 2007). In this context, students can fall within and between these categories. As such, student roles are presented on more of a continuum. Despite this advancement to the bullying literature, labeling children and adolescents based on their role in bullying is dangerous. Coloroso (2003) warned:

> Our children are not merely acting out their scripts, they are living them. They can’t go home after a performance and “get real,” because home is a part of their stage. But scripts can be rewritten, new roles created, the plot changed, the stage reset, and the tragic ending scrapped. . . . We can’t merely banish the bully and mourn the bullied child . . . It’s the roles that must be abandoned, not our children. Our children need a new play and we adults can become active in a total rewrite. (Coloroso 2003, p. 3)

Coloroso (2003) presents a legitimate theatrical analogy. This scholar clarified that students are playing these roles for a “moment” (Coloroso, 2003, p. 3). She warned that
students should not permanently be labeled as bullies, victims, bully-victims, or bystanders, as these student roles are likely to be temporary.

Bystanders are students who are not directly involved in bullying; instead, these students witness bullying. In an exploration of why some children intervene in bullying and others do not, Thornberg (2010) deduced that children go through seven stages of moral deliberations before deciding how to act:

1. Notice that something is wrong.
2. Interpret a student’s need for help.
3. Feel empathy.
4. Process the school’s moral frames.
5. Scan for social status and relations.
6. Condense motives for action.

These stages were based on his observations of preschool, second, and fifth grade students. Interestingly, a similar logic can be applied to the bystander effect in secondary school students. In particular, notions related to ‘social status and relations’ proved to play a role in whether or not students reacted to incidents of bullying they witness (Salmivalli et al., 1996).

Researchers have used these categories of student participation in bullying to study the behavior. In one study, Holt and Espelage (2007) found that males were more likely to be a bully or bully-victim, whereas females were more likely to be uninvolved in bullying. According to the same study, non-White students were more represented than
White students in the bully and bully-victim group. In addition, White students were more represented in the victim group than non-White students (Holt & Espelage, 2007). With regard to bullying behavior, these data presented statistically significant differences according to gender and race.

D’Esposito et al. (2011) examined factors related to victimization among students in sixth through eighth grades. These researchers found that intrapersonal characteristics such as anxiety and sense of inadequacy contributed significantly to peer victimization (D’Esposito et al., 2011). Interpersonal characteristics, measured by social stress and classmate support, were significantly related to victimization as well (D’Esposito et al., 2011). Further, victimization was shown to be enhanced by poor interpersonal relations for girls. For boys, victimization was enhanced by low support from classmates (D’Esposito et al., 2011). As presented by the literature, students who bully and students who are victims of bullying differ based on intrapersonal and interpersonal factors. Again, using a sociological perspective to understand bullying behavior has been well supported by the literature. Similar to the expanded role of student involvement in bullying, when students bully, there are multiple modes through which it can occur. Under this premise, bullying can either be direct or indirect.

**Types of Bullying**

The act of bullying has been characterized as being direct or indirect. Direct bullying occurs through overt actions that can be either physical or verbal (Olweus, 1994). Examples of physical bullying include hitting, punching, kicking, slapping, or throwing objects at someone. Nansel et al. (2001) found that males are more likely than
their female counterparts to engage in acts of physical bullying. Verbal bullying includes name-calling, threatening, and teasing. Due to its explicit and outright nature, direct bullying is the easiest to detect among students and teachers. Indirect, or relational bullying, occurs through covert actions that take place through the manipulation of relationships (Crick & Grotpeter, 1996). Examples of relational bullying include:

1. Excluding a friend from a social activity,
2. Spreading rumors about a close peer as a way to retaliate when the target did not go along with the crowd, and
3. Withdrawing friendship or acceptance (Espelage & Swearer, 2003).

Opposite of direct bullying, relational bullying is not as easy to detect. Because relational bullying takes place through the manipulation of relationships, these acts can be difficult to trace. Crick and Grotpeter (1995) examined relational aggression in boys and girls in third through sixth grade and found that significantly more girls (17.4%) than boys (2.0%) were classified as relationally aggressive (Crick & Grotpeter, 1995). These results clearly demonstrate differences in relational bullying according to sex.

**Prevalence**

First collected in 1991, the Youth Risk Behavior Surveillance System (YRBSS) is a large national data collection effort administered by the National Center for Chronic Disease Prevention and Health Promotion (CDC), Division of Adolescent and School Health (DASH). The Youth Risk Behavior Survey (YRBS) is administered to 9th through 12th grade public and private high school students every other year. The YRBS was
designed to obtain information about the prevalence of behaviors that occur within six priority health-risk areas. These include:

1. Unintentional/Intentional Injuries,
2. Alcohol and Other Drugs,
3. Tobacco,
4. Physical Inactivity,
5. Sexual Behaviors, and
6. Dietary Behaviors (DASH).

Items pertaining to violence in the school setting on the most recent YRBSS 2011 instrument measured the extent to which students were involved in a physical fight at school, felt unsafe going to and from school, carried a weapon on school property for at least one day, or were threatened or injured on school property due to a weapon (USDHHS Centers for Disease Control and Prevention DASH, 2009). In 2011, adolescents reported the following:

1. Being involved in a physical fight at school (12%),
2. Feeling unsafe going to and from school (5.9%),
3. Carrying a weapon on school property for at least one day (5.4%), and
4. Being threatened or injured on school property with a weapon (7.4%).

(USDHHS Centers for Disease Control and Prevention DASH, 2011)

Bullying is a form of violence in the school setting. These violent incidents can occur on school property or electronically. In identifying the extent to which students
reported being involved in bullying or other forms of school violence has been important in tracking the prevalence of these behaviors among youth and adolescents.

The 2011 YRBSS questionnaire assessed the extent to which students reported being bullied on school property or being bullied electronically. The item used to measure bullying on school property is defined as:

When 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way. (USDHHS Centers for Disease Control and Prevention DASH, 2011, question #24 and 25)

The definition presented in the 2011 YRBS items characterized bullying as negative (or with the intent to cause harm), repeated (over and over again), as well as one in which there is a difference in physical strength or power. Also consistent with the types of bullying, this definition included both direct (hit, shove, hurt, threaten, tease) as well as indirect (spread rumors about) forms of aggression.

The data from the 2011 YRBSS revealed that 20.1% of students reported being bullied on school property (USDHHS Centers for Disease Control and Prevention DASH, 2012). Surprisingly, despite the growing concern about cyber bullying, the number of students who reported being bullied on school property was higher than the percentage (16.2%) of students who reported being bullied electronically (USDHHS Centers for Disease Control and Prevention DASH, 2012). Although it may be perceived that bullying occurs more frequently through the use of technology or in the online social
media forum, these data do not support this assertion. Instead, these data support the study of traditional forms of bullying that take place in the school.

The National Center for Education Statistics (NCES) is the primary federal agency responsible for collecting, analyzing, and reporting data released to education agencies in the United States. NCES was designed to address high-priority education data needs. In this context, the NCES is responsible for providing consistent, reliable, complete, and accurate indicators of education status and trends (US.Ed, NCES). NCES reports this high-quality data to the U.S. Department of Education.

One of the surveillance mechanisms conducted by NCES is the School Survey on Crime and Safety (SSOCS). The SSOCS is funded through a division of the U.S. Department of Education called the Office of Safe and Drug-Free Schools. The most recent collection of SSOCS data was during the 2009–10 school year. These SSOCS 2009–2010 data were collected from 3,476 U.S. public school principals. In February 2012, the results from SSOCS 2009–2010 brought to attention the everyday prevalence of bullying in schools as known by principals. During the 2009–10 school year, 23% of public schools reported that bullying occurred among students on a daily or weekly basis. Further, 9% of public schools reported widespread disorder in classrooms on a daily or weekly basis. When broken down by grade, having been bullied at school was reported by:

1. 39% of 6th-graders,
2. 33% of 7th-graders,
3. 32% 8th-graders,
4. 28% of 9th-graders,
5. 27% of 10th-graders,
6. 21% of 11th-graders, and
7. 20% of 12th-graders. (Robers, Zhang, & Truman, 2012)

The results of the 2009–2010 SSOCS are important in regard to the known prevalence statistics of bullying among middle and high school students. These statistics confirm that an alarming 20–28% of 9th, 10th, 11th, and 12th grade students were victimized at some point during their secondary school years in ways that the school principal knew about. It is safe to assume this number is much higher as not all cases of bullying are reported to the principal.

As confirmed by the literature, bullying can be used by children and adolescents to manipulate their social environment (Adelman & Taylor, 2011a). Because of the significant social changes that take place between early childhood and adolescence, it has been hypothesized that middle school students bully more than any other age group. As such, research has confirmed that higher levels of bullying were found among students upon the transition to middle school (Nansel et al., 2001). In addition, the prevalence of bullying declined through the transition to secondary school (Pellegrini & Long, 2002).

Evidence has consistently supported the idea that the prevalence of bullying among U.S. youth is substantial. In 2001, a total of 29% of students in grades 6–12 reported moderate or frequent involvement in bullying. In specific, 13% of students reported their role as a bully, 10.6% of students were victims, and 6% of students reported being both a bully and victim (Nansel et al., 2001). Consistent with the work of
Holt and Espelage (2007), Nansel et al. (2001) found that males were more likely than females to be bully-victims. Similar to the data revealed by the SSOC, the frequency of bullying was higher among students in grades 6–8 than students in grades 9–10. In a Morbidity and Mortality Weekly Report (MMWR), released from the Centers for Disease Control and Prevention (CDC), 43.9% of Massachusetts’ middle school students (grades 5–8) were involved in bullying (McKenna, Hawk, Mullen, & Hertz, 2011). When students reached secondary schools, this number dropped to 30.5% (McKenna et al., 2011). As a comparison of middle school and high school students in the state of Massachusetts, these data support the assertion that the prevalence of bullying is higher among middle school students (Nansel et al., 2001). Clearly, early adolescence (middle school) is a prime opportunity for the study of bullying. Despite the drop in prevalence of the behavior from middle school to secondary school, approximately one-third of secondary students reported involvement in bullying, which is alarming.

Consequences of Bullying Others

In her book, The Bully, the Bullied, and the Bystander: From Preschool to High School—How Parents and Teachers Can Help Break the Cycle of Violence, Barbara Coloroso (2003) offered this important statement, “The Bully, the bullied, and they bystander are three characters in a tragic play performed daily in our homes, schools, playgrounds, and streets . . . the play is real and the consequences can be deadly” (p. 1). Involvement in bullying has several consequences for bullies and victims of bullying. Multiple studies have examined the associations between substance use, poor academic achievement, and mental health problems in context of bullying behaviors (Gini, 2008;
Nansel et al., 2001). Key findings from the work of Nansel et al. (2001) identified the following about students who bullied others:

1. Students who bullied others were more likely to be involved in other problem behaviors such as drinking alcohol and smoking,
2. Students who bullied others showed poorer school adjustment, and

The specific finding that “students who bully others reported greater ease of making friends” was consistent with the work of Cook et al. (2010) who identified that students who bully others could be socially competent.

**Consequences of Victimization**

Young people who have been victimized by bullies have a series of serious consequences. Victims of bullying can suffer from long-term psychological problems. Some of these problems include loneliness, diminishing self-esteem, psychosomatic complaints, and depression (Cook et al., 2010; Smith et al., 2008). Victims also report suffering emotional consequences as a result of bullying including:

1. Depression,
2. Isolation,
3. Low self-esteem, and
4. Lack of hope (Bender & Lösel, 2011; Bonanno & Hymel, 2010).

Students who are victimized by their peers or who lack competent interpersonal relationships may also suffer from depression. Those feelings of depression have been
shown to manifest as rejection and decreased self-esteem (Booth et al., 2011). Further, research has suggested that victims of bullying may suffer such severe emotional consequences that can lead to suicidal thoughts and ideation (Pranjić & Bajraktarević, 2010).

**Consequences for Bullies and Victims**

Bullying has been identified as one of the most prevalent forms of violent behavior in the school setting. The consequences of involvement in bullying exert a profound influence to students’ emotional, physical, and mental health (Bowlann, 2011). Both victims and bullies have been shown to suffer the negative effects of bullying. Children and adolescents who are exposed, repeatedly, to violent behaviors were less likely to attend school on a regular basis (Min, Catalano, Haggerty, & Abbott, 2011). These students were also more frequently suspended from school, and performed lower on standardized tests than adolescents who are not exposed to violence (Baldry & Farrington, 2005). In addition, anxiety was identified as a psychological concern for bullies, victims, and bully-victims (Craig, 1998). According to Conn (2004), bullying harms both the victim and the bully. She asserted,

> Bullies become at risk for poor relationships later in life. Bullies are more likely than nonbullies to go on and become criminals and to end up in jail by the time they reach their twenties. The families of both victims and bullies become part of the problem, sharing the heartaches of the victim or suffering the carried-over aggression of the bully. (Conn, 2004, p. 30)
Bullying and Violence-Related Behaviors

Longitudinal studies have associated bullying behaviors with other negative acts such as vandalism, truancy, and drug use later in life (D’Esposito et al., 2011). In contrast, Brookmeyer, Fanti, and Henrich (2006) analyzed data from the National Longitudinal Study of Adolescent Health (ADD Health) and found that students who feel more connected to their school demonstrated reductions in violent behavior over time (Brookmeyer et al., 2006). School climate was found to be a protective factor for student violent behavior. Together, parent and school connections can act as a buffer for adolescents from violence behavior (Brookmeyer et al., 2006). Students who reported feeling connected to their schools were less likely to engaging in violent behavior over time (Brookmeyer et al., 2006).

Involvement in bullying has been identified as a correlate to other violence-related behaviors for both boys and girls. Nansel, Overpeck, Haynie, Ruan, and Scheidt (2003) demonstrated a relationship between involvement in bullying and several other violence-related variables. In specific, bullying was found to have a significant relationship with weapon carrying in school, physical fighting, and being injured in a physical fight (Nansel et al., 2003, p. 351). Heretofore, bullying should not be considered a normal part of youth development, as it is likely to occur in context of other serious violent behaviors (Nansel et al., 2003).

Examining the extent to which youth are at risk for violent delinquency has revealed other important indicators. In this context, Crooks, Scott, Ellis, and Wolfe (2011) identified child maltreatment as a strong risk factor for violent delinquency in
adolescence. In addition, Crooks et al. identified that youth who were male, those who experienced child maltreatment, were violent in grade 9, and attended a school with a lower perceived sense of safety, were at increased the risk for violent delinquency (Crooks et al., 2011). These important data have added more risk factors for violent delinquency. Importantly, predisposing risk factors for violent delinquency have been shown to increase risk for bullying behavior. Nansel et al. (2003) identified this recommendation for schools: “prevention programs should not only focus on specific aggressive behaviors but also on fostering positive and health-promoting family and school environments” (p. 352).

**Student Perception of Bullying**

Although bullying has been studied extensively, limited qualitative work has investigated the phenomenon of bullying. Swedish researchers Thornberg and Knutsen (2011) analyzed teenagers’ explanations of bullying behavior using qualitative methodology and used a qualitative technique called *grounded theory* to explore these perceptions. A grounded theory approach was identified by Schram (2006) as:

> The explicit aim of grounded theory is to develop a substantive theory that is derived from and grounded in data. Or, if an existing theory seems appropriate but somehow inadequate relative to a topic of inquiry, then this theory may be elaborated and modified as the researcher plays additional and ongoing instances of data against it. Grounded theory proposes a methodological stance and set of tools designed to lead to theory, based on the study of social situations. (p. 101)
Using the grounded theory technique, Thornberg and Knutsen (2011) constructed five main categories of student explanations for bullying behavior. Of these, *bully attributing* was most common, at 69% (Thornberg & Knutsen, 2011). Bully attributing is explaining bullying behavior through the characteristics of bullies. In order to explain why students bully, teenagers in this study believed that *bullies* were insecure (Thornberg & Knutsen, 2011). Also, teenagers believed these *bullies* had:

1. inner flaws,
2. poor self-confidence, and

Although less common (37%), the subjects in this study also explained bullying in context of the victim, called *victim attributing*. Students gave the following explanations for why victims were bullied, as it was because he or she:

1. Is different,
2. Maybe wears special clothes,
3. Has an odd personality, and/or

Thornberg and Knutsen (2011) revealed that significantly more girls (80%) than boys (57%) attributed the causes of bullying to the bully (p. 182). Based on these findings, girls were more likely to blame the bully for his or her behavior, suggesting that girls are potentially more sympathetic to victims. Overall, teenagers in this study were more likely to explain bullying in context of individual, or personal, attributes. As part of the construction of the five main categories, subjects reported that they perceived
non-individualistic factors to be influential to incidents of bullying as well. These factors included peer-to-peer networks, the overall school environment, and society as a whole (Thornberg & Knutsen, 2011, p. 182). Consistent with social ecology, the overall school environment exerts significant influence on the behavior of individuals and groups. Group norms have also been shown to positively or negatively influence bullying behavior (Pellegrini & Long, 2002). Therefore, studying bullying as it occurs among groups of students is supported by the literature.

**Bullying and the Peer Group**

One theoretical approach to examining group norms and bullying behavior was identified through the work of Cohen and Wills (1985), who developed the *homophily hypothesis*. *Homophily* is described as within-group similarity. Cohen’s hypothesis states that peer groups form based on similarities in sex, race, and closeness, or the ability to relate to one another. These similarities can further occur through behavioral dimensions such as smoking or academic achievement (Cohen & Wills, 1985). Using this theory, peer group affiliation has the potential to influence bullying behavior among adolescents of the same peer group.

The work of Espelage and Swearer (2003) supports the *homophily hypothesis* using peer networks to explain bullying behavior among middle school students. In specific, students who identified with a peer group that bullied other students frequently were more likely to engage in this behavior (Espelage & Swearer, 2003). In support of this, Salmivalli (2010) found that peer networks influence bullying behavior for both
males and females. Based on these studies, future research using peer groups as a foundation for studying bullying warrants attention.

**Bullying as a concern for Schools**

Bullying has been identified as a threat to school safety and the overall school climate. In specific, it can disrupt the overall school climate and impose fear in students. Students who do not feel safe, protected, or a general sense of belonging are less likely to do well in school (Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004; Eisenberg, Neumark-Sztainer, & Perry, 2003). Also, adolescents who reported that they were bullied reported lower levels of academic achievement than students who reported that they were not bullied (Gini, 2008). In this context, involvement in bullying has been shown to interfere with the primary mission of schools, which is academic achievement.

Victims of bullying are less likely to come to school and are at an increased risk for dropping out (Min et al., 2011). Victimization has been identified as a major correlate to violent behavior. A person who is bullied by his or her peers can act out in aggressive ways by committing violent school acts, such as school shootings (Booth et al., 2011).

A school’s environment has been assessed as the extent to which students feel safe and supported by adults and peers in the school setting. In addition, a school’s environment has been shown to contribute to student sense of belonging (McNeely et al., 2002). Importantly, social support was identified as a protective factor in context of bullying and emotional health. Holt and Espelage (2007) examined the role of perceived social support, involvement in bullying, and psychological distress. Results revealed that bullies, victims, and bully-victims who had moderate peer social support reported less
anxiety and depression (p. 990). Among students who were classified as bullies, those with low levels of social support reported the most anxiety/depression (p. 990). Among students classified as bully-victims and victims, higher levels of peer social support were associated with more anxiety/depression (p. 992). Interestingly, these results indicated that social support did not buffer against negative mental health symptoms (anxiety and depression) for bully-victims and victims (p. 992). Based on these findings, schools can work to effectively to address bullying by attending to the social support networks in which youth and adolescents are arranged. Importantly, schools should acknowledge the role of students who are victimized by their peers, as they may be less affected by strategies that seek to increase social support. Because of these conflicting findings, researchers on the topic of school bullying should continue to study the role of the social factors on bullying.

According to Arum (2011), school climates were affected by several factors. These factors included administrative regulation, peer environments, and how students and educators interact (Arum, 2011). In this context, disorderly and disruptive peer environments were found to corroborate student misbehavior. When students perceived school discipline to be unfair or illegitimate, they were less likely to internalize and accept the social norms and rules that govern schools and were more likely to misbehave (Arum, 2011).

Arum (2011) advised administrators and teachers to be more proactive and responsive in working to promote learning environments perceived by students to be relevant and meaningful. Consistent with this recommendation, Waterman (2011)
acknowledged the role of the social school environment in context of bullying. He stated, “Because of these social infrastructures in schools, educators need to be able to recognize, understand, and guide children’s relationships to increase social connection and weaken bullying” (Waterman, 2011, p. 10).

Other scholars have used the social environment to study bullying. Hamarus and Kaikkonen (2008) conducted a qualitative study that explored bullying as a social construction. He believed that bullying was a phenomenon embedded in cultural norms, values, and social status (Hamarus & Kaikkonen, 2008). The work of Hamarus and Kaikkonen supported this hypothesis, namely asserting that attending to the cultural values of youth and adolescents could be a valuable way to understand bullying. Importantly, Hamarus and Kaikkonen acknowledged that a secure learning environment at school was essential in getting students to feel socially secure and accepted.

**School Responses to Bullying**

A considerable amount of difficulty exists for schools in crafting anti-bullying policies. Such a policy would need to be expansive enough to account for all possible incidents of bullying, and at the same time not infringe on the right to free speech as protected by the First Amendment (Conn, 2004). In this regard, Conn argued,

Public schools do not have to tolerate the taunts of bullies, even those who assert the right of freedom of speech or expression, if school administrators and teachers are informed about the law. The First Amendment does not protect bully’s obscenities, fighting words, or insults that damage peers’ relationships with other students . . . because schools are responsible for inculcating in students the values
of civility and good citizenship, schools have even broader power and authority to restrict speech and expression than federal, state, or local governments. (p. 37)

Physical acts of aggression, defamatory words, lewd comments, vulgar statements, or intimidating threats fall outside of the protection of the First Amendment, as these interfere with students’ rights to an education (Conn, 2004). Typically, schools address bullying through student codes of conduct or district level discipline policies (Conn, 2004). Despite the protection of the First Amendment, some states have adopted anti-bullying laws, which make it illegal to commit acts of bullying.

There are barriers to the effective management of bullying within the school environment. One barrier is the conflicting responses committed on behalf of professionals including teachers, counselors, administrators, and other school staff employed in the school (Athanasiades & Deliyanni-Kouimtzis, 2010; Brookmeyer et al., 2006). Many students have revealed that they were seldom able to stop the bullying through actions of their own (Davis & Nixson, 2011). In fact, students reported that trying to stop the bullying on their own made things worse (Davis & Nixson, 2011).

Students have reported using several techniques to deter bullying including:

1. Pretending it didn’t bother me,

2. Told a friend, and/or,

3. Told the person or people to stop and walked away (Davis & Nixson, 2011, p. 19).

In terms of handling incidents of bullying, bullied students identified the most effective strategies as:
1. Reminding themselves that the bullying was not their fault, and

2. Seeking support from friends and adults (Davis & Nixson, 2011).

When important adults in the school setting ignored the behavior or told students to solve the problems themselves, students reported incidents getting worse (Davis & Nixson, 2011). Students who were not confident in a teacher’s ability to handle incidents of bullying, or who did not feel teachers care about the problem were less likely to report bullying as well (James et al., 2008). In order to confront this barrier to effective management of bullying in the school setting, Graham (2010) insisted that adults should be supportive and encouraging when students report bullying. In addition, adults in the school should remain vigilant within the school environment and supervise students during times in which bullying is likely to take place (Graham, 2010). Further, the literature has confirmed that when students feel positively connected with adults and peers in the school, they are more resilient and less likely to be hurt by incidents of bullying (Baldry & Farrington, 2005).

The current state of the practice in schools with regard to anti-bullying policies and programs has yielded few positive outcomes in the literature. Adelman and Taylor (2011b) acknowledged that most anti-bullying programs and interventions in schools were designed as stand-alone programs. Most programs focused narrowly on two key incentives, increasing awareness and decreasing aggressive behavior. Unfortunately, these programs failed to acknowledge the role of the school environment in context of bullying.
Schools have become a social function in the United States. They provide a place where friendships develop. Schools have the potential to help students feel supported and respected, and can give them a sense of community. Students, teachers, administrators, and all school personnel share responsibility for developing a school community that provides all students a safe space in which to learn. Evidence-based anti-bullying strategies and programs in the school have been shown to improve the school environment and reduce incidents of bullying (The Olweus Bullying Prevention Program, 2005). Unfortunately, these programs have not been well utilized by schools (Limber & Small, 2003). While the scrutiny surrounding the enforcement and management of bullying policies within individual schools has been profound, the movement to adopt state-level anti-bullying laws has become the trend in managing this health concern.

**Federal Support for States’ Bullying Prevention Efforts**

Though the majority of school policy and organization in the U.S. is controlled by individual states and school districts, Federal support or direct policy initiatives have the potential to make large changes both more likely to occur and within shorter amounts of time (Weber, 2011). As such, President Obama has championed efforts of the U.S. Department of Education in bullying prevention. With the support of President Obama, the U.S. Department of Education launched its first Bullying Prevention Summit in August 2010. Initially, the goal of this effort was to inform federal practice and generate public support for bullying prevention. In light of this federal effort, a few historical incidents occurred to inform practice and generate support after the first meeting. These events included:
1. An October 2010 “Dear Colleague” letter constructed through the U.S. Department of Education, Office for Civil rights providing guidance to elementary schools, colleges and universities in regard to bullying. Specifically, this letter mentioned the need to include protection for harassment of students who are gay, lesbian, bisexual, and transgender.

2. A December 2010 message from U.S. Secretary of Education Duncan to governors and chief state school officers outlining comprehensive state anti-bullying laws and policies. The report included the definitions of bullying, how to report bullying, responses to bullying procedures, consequences for those who are involved in bullying, and referrals for students to seek mental and health services.

   In March 2011, the President convened a conference at the White House in order to garner support for bullying prevention from key national organizations and agencies. Organizations who pledged to address bullying in some way included the:

   1. National Association of Elementary School Principals,
   2. National Association of Secondary School Principals,
   3. National Parent Teacher Association,
   4. National School Boards Association,
   5. American Federation of Teachers, and the

   As identified in this list, both public and private institutions and organizations have supported federal efforts at bullying prevention. In June 2011, a “Dear Colleague” letter
was constructed by Secretary of Education Arne Duncan, which outlined the rights of students to form groups such as Straight Alliances, as it afforded protection under the Equal Access Act. He noted the importance of creating safe and welcoming learning environments and encouraged administrators, faculty members, staff, students, and parents to abide by these guidelines and use them to improve district-level anti-bullying policies (U.S. Department of Education, 2012).

The second annual Bullying Prevention Summit, sponsored by the U.S. Department of Education in partnership with eight other federal agencies that make up the Federal Partners in Bullying Prevention Steering Committee, was held in September 2011. At that time, current Secretary of Education Duncan stated:

Last year, when my team at the Department convened this summit, little did we know that soon after, national attention would turn dramatically to this issue. Just weeks later, Tyler Clementi succumbed to the outrageous behavior of people he trusted. Tomorrow marks the anniversary of his suicide—and tragically, Tyler’s death isn’t the only one. Last fall, several other young people took their lives after being bullied or harassed. . . . A number of brave parents and relatives are here today because they too lost children, in part, because of bullying. There is no greater heartbreak. But all of them are now working to ensure that other students won’t suffer the way their children did . . . Bullying affects not only the child or children it targets, but the entire community that surrounds them—their parents, their classmates, even the child engaging in the bullying. Keeping our children safe is everyone’s responsibility, and I’m proud to come together with so many
national leaders, parents, teachers, and students to reaffirm our collective commitment to prevent bullying in every way possible. (Press Release, September 2011)

The third annual Bullying Prevention Summit, sponsored by the U.S. Department of Education’s Office of Safe and Healthy Students, was held in August 2012. The three overarching themes of this summit included:

1. Supporting all students involved in bullying, including those who bully,
2. Understanding the connection between bullying and suicide, and
3. Encouraging youth to be more than a bystander in bullying situations.

In addition, the focus of this third summit was to ensure that anti-bullying efforts “are coordinated and based on the best available research” (U.S. Department of Education, 2012).

The three Bullying Prevention Summits have attempted to formulate specific best practice recommendations for the nation. As a result of the Federal initiative to prevent bullying, the U.S. Department of Education created the Safe and Supportive Technical Assistance Center. This subset of the U.S. Department of Education was charged with the development of training modules to assist states in anti-bullying efforts. For example, the Safe and Supportive Technical Assistance Center recently developed a free teacher-training toolkit to stop bullying. This research-based training helps teachers identify and respond effectively to bullying, including information about how to deescalate a tense situation. According to Deborah Temkin, Research and Policy Coordinator for Bullying Prevention Initiatives at the Department of Education: “The
training also shows the importance of building strong relationships in the classroom, as well as creating an environment respectful of diversity, in order to prevent bullying” (U.S. Department of Education, 2012).

This free teacher training resource, available at the U.S. Department of Education’s website, is an example of a commitment to anti-bullying efforts on behalf of the Federal government. Hopefully, this commitment to bullying prevention will be sustained over the next few years, because according to Weber (2011), the prospect of passing any Federal anti-bullying laws is ‘dim.’ As such, he stated:

It’s not for a lack of proposals. At least six bills have been introduced in Congress this year that would boost the federal government’s role in bullying prevention. They range from allowing a grant to be used for anti-bullying efforts to enacting federal protections for gay and lesbian students. But none of those six have had a committee hearing or a vote. (Weber, 2011)

In context of Federal government involvement in a related concern, the Safe and Gun Free Schools Act (GFSA), sub-part of the ESEA, was created to prohibit weapons and drugs in schools (U.S. Department of Education, 2009). As a violence-prevention measure taken by the Federal government, the GFSA requires states to adopt policies to deter students from bringing weapons and drugs into schools. Similar success may be possible with regard to anti-bullying policy.

While the pending reauthorization of ESEA has yet to codify any Federal laws with regard to bullying, these proposed amendments come in the form of the Safe Schools Improvement Act (SSIA). The proposed amendments to address the issues
related bullying have confirmed the federal governments’ support for school bullying issues. Since 2009, several attempts to sign the bill into law have been made, but these efforts have continually been stopped short through the legislative process. Recently, the bill (H.R. 1648) was re-introduced to the 112th Congress in March 2011, where it was then referred to committee in April 2011 (Govtrack.us). Thus, the proposed amendments to the SSIA reside with the committee, who has not yet reported on the bill. More importantly, if ESEA were to be reauthorized, the proposed amendments to the SSIA would require schools to:

1. Collect information regarding incidents of bullying,
2. Create plans to address bullying in student codes of conduct, and
3. Establish a procedure by which students can report bullying behaviors

(Edmondson & Zeman, 2011).

Despite the shortcoming of not having passed a Federal law on bullying, the government has sponsored a website (www.stopbullying.gov) dedicated to providing current information and evidence-based resources for parents, teachers, community members, and students. As a federally supported website, stopbullying.gov provides these critical stakeholders with the resources and tools to bullying prevention (USDHHS). This website also provides information pertaining to State laws to combat bullying. For example, most states, including the State of Ohio, currently have an anti-bullying law. In order to facilitate policy development among Ohio district and local level governance, the Ohio Department of Education also provides a model bullying policy (USDHHS, Model Policies/Laws).
In light of this federal effort to recommend the use of evidence-based bullying prevention programs, the National Registry of Evidence-based Programs and Practices (NREPP) provides a useful starting point for schools. As part of the Substance Abuse and Mental Health Services Administration (SAMHSA) housed within the U.S. Department of Health and Human Services (USDHHS), NREPP provided a registry of mental health and substance abuse interventions. Programs and interventions submitted to NREPP are reviewed, and each summary includes:

1. Information about the intervention,
2. Description of research outcomes,
3. A list of studies and materials, and
4. Contact information to obtain information about implementation or research.

NREPP was designed to serve as a starting point in looking for programs and interventions with regard to mental health and substance abuse. Importantly, there were several interventions that are appropriate for bullying. By using the basic keyword search “Bullying,” NREPP returns a list of eight interventions. Although NREPP was not intended to be a complete list of all possible interventions, it is a resource through which schools can begin in looking for anti-bullying programs that are grounded in evidence.

The Health Resources and Services Administration (HRSA) is the primary federal agency under the USDHHS dedicated to improving access to healthcare. HRSA provides support to healthcare providers in states in order to improve access to healthcare among uninsured. Children were identified as a target group for this support. The following were the four goals of this agency:
1. Goal I: Improve Access to Quality Care and Services,
2. Goal II: Strengthen the Health Workforce,
3. Goal III: Build Healthy Communities, and

HRSA’s Bureau of Primary Health Care (BPHC) provided funding specifically to health care centers identified as “Health Center Clusters,” through grant programs. School-based health centers have been identified as a Health Center Cluster that has received support from HRSA-BPHC. Further, there was one county in Ohio that had 13 HRSA supported school-based health centers (HRSA, 2012).

In November 2012, students enrolled in two schools began benefiting from a new, on-campus, school health center. This decision was supported by a $345,000 donation from the Deaconess Associations Foundation. In a partnership between Deaconess and the Cincinnati health department, school-based health centers were constructed to provide students with high-quality services including screenings, physicals, referrals, and first-aid. Tony Woods, Deaconess Associations chairman, added:

Deaconess has a long tradition of applying its resources to initiatives that add value and strength to our health care system and our patients. We welcome the opportunity to make a real difference in the health of Cincinnati’s teens and their learning environment. (The Community Press & Recorder, 2012)

As a federally qualified site, the Foundation’s Deaconess Health Check health center that will be located in these Cincinnati schools is one example of HRSA’s BPHC goals in action.
National Efforts to Reduce and Prevent Bullying

In addition to specific actions taken by the Federal government to reduce and prevent bullying, national efforts have also emerged. The National School Safety Center (NSSC) was established in 1984 by Presidential mandate of then President Ronald Reagan. Now a private, non-profit organization housed in the Center for the Study and Prevention of Violence, the primary strategy of The National School Safety Center is to inform, persuade, and integrate school safety and public opinion by placing such items on the education agenda. In addition, the NSSC seeks to develop district and school safety plans, including safety policies. The NSSC encompasses a variety of stakeholders including teachers, law officers, community leaders, and government officials (NSSC-CSPV, National School Safety Center, n.d.).

The National Education Association is the nation’s largest education union whose mission is “to advocate for education professionals and to unite our members and the nation to fulfill the promise of public education to prepare every student to succeed in a diverse and interdependent world” (NEA, 2006). Since the mid-1990s, the National Education Association has supported bullying prevention efforts. According to results from the National Education Association’s Nationwide Study on Bullying, approximately 43% of staff reported that bullying was a moderate or major problem at their school (Bradshaw, Waasdorp, O’Brennan, Gulemetova, & Henderson, 2011, p. 9). School staff also reported verbal (59%), social/relational (50%), and physical (39%) bullying were of greater concern in their school than cyber-bullying (17%; Bradshaw et al., 2011, p. 11). Overall, approximately 60% of respondents said their school had a formal bullying
prevention plan such as a school team, a committee, or a prevention program (p. 13). Interestingly, the perceptions among teachers and other school staff with regard to the prevalence bullying were almost double the estimate of prevalence of the behavior among principals as indicated in the SSOSC (Robers et al., 2012).

**Anti-Bullying Policy and Initiative at the State Level**

**Historic View of State Legislation on Bullying**

The first state to pass an anti-bullying law was Georgia in 1999. During this time, most of the bullying prevention aspect of the law was written into larger, pre-existing school safety plans (Limber & Small, 2003). As such, the provisions for bullying were included in (not separate from) the safety plan for the management school crises (such as violent incidents in the school) and weather-related evacuation plans. Also, most of the language was written to include the overt, physical, forms of bullying, and did not address the relational form of bullying (Limber & Small, 2003).

In 2003, 15 states had passed anti-bullying laws (NCMHYP; Stuart-Cassel, Bell, & Springer, 2011). By 2007, 35 states had passed anti-bullying laws (Stuart-Cassel et al., 2011). While the scope of these policies was more comprehensive in nature in 2007 when compared to 2003, most of these policies continued to be written as portions of school safety protocols (Limber & Small, 2003).

Currently, 49 states have passed anti-bullying laws (USDHHS, 2012). While a majority of states have both laws and model policies (for school districts), some states have only laws. As of 2012, the only state to not have a law is Montana; however, Montana does have an anti-bullying model policy. With all but one state having passed
an anti-bullying law, the support for anti-bullying legislature among states is
overwhelming. Also, with no federal anti-bullying law, states exert full discretion in
identifying the content to be included with these laws. Notwithstanding a federal law, the
U.S. Department of Education has identified 11 components instrumental to developing
quality state level anti-bullying policies. These components can be used to guide state
level policy decisions. These components are:

1. A Purpose Statement,
2. Statement of Scope,
3. Specification of Prohibited Behavior,
4. Enumeration of Specific Characteristics,
5. Development and Implementation of LEA’s Policies,
6. Components of LEA’s Policies, (including: Definition, Reporting Bullying,
   Investigating/Responding to Bullying, Written Records, Sanctions, Referrals)
7. Review of Local Policies,
8. Communication Plan,
9. Training and Prevention Education,
10. Transparency and Monitoring, and
11. Statement of Rights and other Legal sources (USDHHS, Key Components in
    State bullying laws)

In addition to these key components, the federal government has provided examples for
statements that can be included under each of these components.
Examples of State-Level Anti-Bullying Law

The state of New Jersey Senate and Assembly passed the “Anti-Bullying Bill of Rights” (SB 3466) in November 2010. This bill was developed after an 18-year-old Rutgers University student, Tyler Clementi, committed suicide by jumping from the Washington Memorial Bridge. It was portrayed that Clementi took his own life after discovering that a sexual encounter he had, with another man, had been secretly video-taped by his roommate. This video was then placed on the Internet. In the wake of this tragic circumstance, legislators in New Jersey passed the Anti-Bullying Bill of Rights just two months after the incident. In support of her sponsorship, State Senator Diane Allen said, “while the law won’t end bullying, school employees will know how to better deal with it” (Friedman, 2011). Further she commented, “While we cannot change human nature, we can change how government and school officials respond to unacceptable behavior” (Friedman, 2011).

Given this unwavering support for anti-bullying sweeping the state, New Jersey undoubtedly has one of the most progressive anti-bullying laws as it even requires every school to name an anti-bullying specialist (Edmondson & Zeman, 2011). The law also requires intense training for public school employees in recognizing and reporting bullying and mandates school safety teams within each school to review complaints of bullying. Public school employees are required to complete a training course that includes “training in the protection of students from harassment, intimidation, and bullying, including incidents which occur through electronic communication,” as well (Zhao, 2011). In addition, school employees are required to report incidents of bullying
as they become known, regardless of whether the incident occurred in or outside of school. A failure to do so could result in disciplinary sanctions (Zhao, 2011). In addition, school district superintendents are required to report incidents of bullying to the State Board of Education. Because of the pronounced pressure on school district superintendents, building administrators are under intense scrutiny to discipline students involved in bullying. In addition, the law requires school districts to institute bullying prevention programs. Interestingly, the law also designates the week beginning with the first Monday in October of each year as a “Week of Respect,” requiring districts to observe the week by focusing attention on preventing harassment, intimidation, and bullying (Assembly Education Committee, 2010).

In February 2012 an amendment to H.B. No. 116 passed in the state of Ohio that revised public school policies to prohibiting harassment, intimidation, or bullying. As written, the “Jessica Logan Act” allowed schools to discipline students for electronic harassment, intimidation, or bullying (H.B. No. 116). Importantly, this current Ohio law allows schools to discipline students for actions that occurred off school property. In the state of Ohio, “an electronic act means an act committed through the use of a cellular telephone, computer, pager, personal communication devise, or other electronic communication devise” (H.B. No. 116, Section 1.1). Consistent with the strong sentiment set forth by New Jersey’s Anti-Bullying Bill of Rights, Ohio has mandated local boards of education and school districts to prohibit acts of electronic harassment, intimidation, or bullying, and to train educators on how to respond to incidents of bullying.
As another example of state anti-bullying law, the South Carolina Safe School Climate Act was designed to limit and punish harassment, intimidation, or bullying among public school students (Terry, 2010). Although the law made it a requirement that schools adopt anti-bullying policies, it did not appear to have changed the school culture. In a survey of South Carolina educators, 97% of the survey respondents reported that they knew of the Safe Schools Climate Act. In addition, 63% of the survey respondents did not believe that the law exerted pressure on schools to take care of the problem of bullying (Terry, 2010, p. 96). Even more, some survey respondents did not identify that bullying was a problem. Instead, these respondents, all of whom include teachers, administrators, and district staff members, dismissed the problem by saying “children will be children,” and “as long as there are children, there will always be teasing, harassment, etc.” (Terry, 2010, p. 97). As evidenced by this survey completed by South Carolina educators, despite the anti-bullying legislation at the state level, little improvement can be made when the sentiment is disregarded among key stakeholders in the school environment.

**Research Recommendations for State of the Art in State Anti-Bullying Laws**

As of 2012, it is insufficient to assume that because states have laws, that they are quality laws. Unfortunately, Limber and Small (2003) identified that some state policies fail to acknowledge less obvious forms of bullying, such as indirect or relational bullying. By failing to acknowledge relational bullying, these policies are missing a critical, sometimes more lethal, form of the behavior (Limber & Small, 2003). In addition, those policies that defined bullying and harassment interchangeably were missing the power
differential that is exclusive to acts of bullying. Further, Limber and Small suggested that bullying, as compared to harassment, has a more distinct definition, also to include more covert forms of aggression.

Limber and Small (2003) recommended that local schools should involve a variety of stakeholders in creating bullying policies. Further, these policies should require violence prevention programs in schools. Violence prevention programs have been identified as a means by which schools can reduce incidents of bullying and promote a positive and supportive school climate (Olweus, 1994). Best practice, with regard to violence prevention, was the utilization of programs that used a combination of approaches such as education (knowledge), early intervention, and individual behavior modification strategies to promote a positive school culture (Johnson, 2009).

Research on state laws and model policies constructed to address bullying has revealed a significant amount of variation from state to state (Limber & Small, 2003). In specific, research has identified a few inconsistencies across states. Examples of elements of policy in different states include:

1. Administrators developed zero-tolerance policies to prohibit bullying.
2. Staff at each school building developed bullying policies.
3. Schools were encouraged to implement bullying prevention programs.
4. Each school was required to establish a Safe School Committee to review bullying prevention programs.
5. Employee training on bullying prevention was required (Limber & Small, 2003).
In light of these inconsistencies, Limber and Small (2003) recommended state anti-bullying laws include several required components. Those components were:

1. Training for all school staff,
2. Appropriate sanctions for children who bully,
3. Forums for students to discuss bullying and peer relations within classes,
4. Dialogue with parents of affected students,
5. Assessments of the nature and extent of bullying within local schools,
6. Attention to adult supervision in locations where bullying is common, and
7. Immunity for reports of bullying that are made in good faith (Limber & Small, 2003, p. 452).

State laws like the Anti-Bullying Bill of Rights in New Jersey and the Jessica Logan Act in Ohio have been identified as prominent state level influences to local school districts. Similarly, local school district policies garner a profound influence on school-level policies and practices. In light of this, local school districts have become accountable for updating their policies to be consistent with state-level mandates. As such, a majority of state-level mandates required substantial improvement in the amount of professional development for teachers dedicated to recognition and reporting of bullying (Zubrzycki, 2011, p. 16).

Evidence-Based Bullying Prevention Programs in Schools

The focus on bullying prevention in schools has trickled down from Federal and national level support, to state Departments of Education, to local school districts and
into every school and classroom across America. Farrington and Ttofi (2010) offered this sentiment in regard to the quality of school based bullying prevention programs:

Many school-based intervention programs have been devised and implemented in an attempt to reduce school bullying. These have been targeted on bullies, victims, peers, teachers, or on the school in general. Many programs seem to have been based on commonsense ideas about what might reduce bullying rather than on empirically-supported theories of why children bully, why children become victims, or why bullying events occur. (p. 9)

Given this proffered sentiment from researchers, the first large-scale anti-bullying program was the OBPP implemented by Olweus in 1983. Importantly, the results of this program were astounding. Over a two and a half year period, this program was shown to decrease victimization by 50% (Olweus, 1994). Because of its significance, it is still widely used nationally and internationally as a framework for school-level bullying programs for students enrolled in elementary, middle, and high schools. OBPP functions as an intervention designed by layers of strategies that include strategies for individual students, teachers, parents, and community members (The Olweus Bullying Prevention Program, 2005). Further, the strategic framework for the OBPP involves a variety of stakeholders, including parents, and provides these stakeholders with information, skills, and resources (The Olweus Bullying Prevention Program, 2005). Students are targeted with role-playing scenarios and assertiveness skills training, and both students and parents are offered guidance and support for managing bullying incidents. Teachers are convened in meetings to discuss ways to improve peer relationships in the school and
significantly more time is dedicated to supervision during recess and lunchtime (especially in elementary schools) during the school day.

Farrington and Ttofi (2010) found that the number of bullying prevention programs had doubled in schools from 2003 to 2009. With the proliferation of the number of bullying programs available over the past decade, the past several years has been a remarkable period for the evaluation school-based bullying prevention programs. In 2010, one such evaluation of school-based programs (Farrington & Ttofi, 2010) was submitted to the U.S. Department of Justice. Table 4 highlights a few chosen school-level bullying prevention programs in the United States. Each description includes the aim, methods, and author for each program.

In this context, multi-component and whole-school prevention efforts are identified as the most promising strategies for schools in addressing the problems of bullying (Bowllan, 2011). According to a study conducted by Arum (2011), positive peer relationships have been significantly associated with a decrease in misconduct and school misbehavior. In addition, teacher support has been found to be significantly related to less perpetration and victimization of violence for middle and high school students (James et al., 2008). James et al. claimed that school anti-bullying efforts should focus on student to student and student to teacher relationships within the school as a strategy to decrease violence (James et al., 2008), therefore, fostering a positive relationship between students and teachers has been identified as critical first step in moving forward with bullying prevention efforts. In this context, Johnson (2009) identified that students were less likely to bully in schools in which:
1. There are positive relationships with teachers,
2. The student population is aware of school rules and feels they are fair,
3. Students have ownership in their school, and
4. Classroom and school environments are positive.

Table 4

Selected Bullying Prevention Program Review (Farrington and Ttofi, 2009)

<table>
<thead>
<tr>
<th>Program</th>
<th>Author</th>
<th>Aim</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.S. GRIN (Social Skills Group Intervention)</td>
<td>De Rosier &amp; Marcus, 2005</td>
<td>Help children enhance their social skills, designed as social-skills training for peer-rejected, victimized and socially anxious children; Help children build social skills and positive relationships with peers.</td>
<td>Groups sessions for eight consecutive weeks led by school counselor, approximately 1 hour each.</td>
</tr>
<tr>
<td>Steps to Respect</td>
<td>Frey et al., 2005</td>
<td>Tackle bullying by: a) increasing staff awareness, b) fostering socially responsible beliefs, c) teaching social-emotional skills, d) fostering socially responsible beliefs, e) teaching social-emotional skills to promote healthy relationships.</td>
<td>1. Policy and procedures to reduce bullying, 2. Staff training and parent meetings to increase awareness, 3. Classroom based activities to teach friendship skills, emotion regulation skills, identify types of bullying and prevention strategies, 4. Peer group discussions, 5. Instructional training for all school staff; two levels, overview of program and additional training to coach students involved in bullying.</td>
</tr>
<tr>
<td>Transtheoretical-based Tailored Anti-bullying Program</td>
<td>Evers et al., 2007</td>
<td>Provide individualized and interactive computer interventions to populations of middle and high school students involved in bullying as bullies, victims and/or passive bystanders.</td>
<td>Three 30 minute computer sessions during the school year and 10-page manual for staff and parents. Materials included “Build Respect, Stop Bullying” program (Evers, et al. 2007) which is an internet-based program.</td>
</tr>
<tr>
<td>Bully-Proofing Your School (BPYS)</td>
<td>Menard et al., 2008</td>
<td>Heighten awareness of the problem of bullying, measure extent of bullying and classroom rules related to zero tolerance for bullying, teach students protective skills for dealing with bullying, including resistance to victimization, create positive school climate where students are encouraged to work as positive and supportive bystanders.</td>
<td>1. Classroom curriculum, seven sessions of 30-40 minutes delivered by teacher or mental health staff, 2. Weekly classroom meetings for student discussion, 3. Parent newsletters, consultation to parents whose children were involved in bullying. Program total of 3 year period.</td>
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Perceived School Connectedness

In 2004, Robert Blum, and other researchers convened at the Wingspread Conference Center in Racine, Wisconsin, to synthesize the state of the science about the topic of school connectedness. The conference was sponsored by the Division of Adolescent and School Health (DASH) of the Centers for Disease Control and Prevention and the Robert Wood Johnson Foundation. In addition to Blum and his colleagues, leaders from the government, education, and the health disciplines were in attendance. Predicated on findings generated from this meeting, a “declaration” was published on school connectedness.

In the September 2004 publication of the Wingspread Declaration on School Connections, school connection was defined as “the belief held by students that adults in the school care about their learning as well as about them as individuals” (Wingspread, 2004, p. 233). Requisites for school connection were specified to include:

1. High academic expectations,
2. Positive adult-student relationships,
3. Physical and emotional safety. (p. 233)

Although school connection was defined in the Declaration as a belief held by students, school connection has been characterized in numerous ways throughout the literature. According to researchers in a variety of disciplines including education, health, psychology and sociology, the broad category of school connection has become synonymous with:

1. school bonding,
2. school engagement,
3. school attachment,
4. school climate,
5. school involvement,
6. teacher support, and
7. school connectedness (Libbey, 2004).

The term *school bonding* was developed by sociologists who focused on attachment and commitment as the primary means of measuring this concept (Libbey, 2004). A framework for measuring *school engagement* was developed by Simons-Morton and Crump (2002). In their work, this construct is measured by asking students whether or not they pay attention in class, take school seriously, and want to do well academically (Libbey, 2004). In 1993, Finn measured *school engagement* by asking students about attendance, participation in school activities, behavior, student teacher relationships, and student perceptions of belonging. The term *school climate*, studied by Coker and Borders (2001), assesses school climate by asking students if they get along with teachers, believe the school has school spirit, and believe teachers were interested in students. Researchers Ryan and Patrick (2001) defined *teacher support* by asking students whether or not teachers respect their opinion, understand how they feel about things, or help when they are sad or upset. Finally, the work by Resnick et al. (1997) explored the construction of *school connectedness* and suggested that this construct could be evaluated by asking students about the extent to which they agreed with the following statements:
1. You feel close to people at your school,
2. You feel like you are part of your school,
3. You are happy to be at your school,
4. The teachers at your school treat students fairly, and
5. You feel safe at your school (Resnick et al., 1997).

In addition, students responded to the question, “How much do you feel that your teachers care about you?” (Resnick et al., 1997).

Regardless of the discipline, many of the terms used to measure student connection have been examined in similar ways. These similarities have been demonstrated in the literature to be highly predictive of success in school. In summary, there are nine consistent constructs salient to measuring school connections, including:

1. Academic engagement,
2. Belonging,
3. Discipline/fairness,
4. Extracurricular activities,
5. Likes school,
6. Student voice,
7. Peer relations,
8. Safety, and

Several important associations about these constructs have been observed. Students who feel a sense of belonging and being a part of school, like school, perceive that teachers
are supportive and caring, have good friends in school, are engaged in current and future academic progress, feel school discipline is fair; and who participate in extracurricular activities are more likely to be regarded as being connected to school than their counterparts who do not (Blum, 2005a; Bowman, 2002; Frydenberg, Care, Freeman, & Chan, 2009; McNeely, Nonnemaker, & Blum, 2002; McNeely & Falci, 2004; O’Brennan & Furlong, 2010; Wingspread, 2004).

In contribution to the literature about the variability of school connectedness, McNeely et al. (2002) found evidence to suggest that four school attributes explained a significant percent of variance in levels of connectedness between schools. These four attributes are:

1. Classroom management climate,
2. School size,
3. Severity of discipline policies, and
4. Rates of participation in extracurricular activities (McNeely et al., 2002).

McNeely et al.’s (2002) secondary analysis of data from the National Longitudinal Study of Adolescent Health (ADD health) revealed specific findings about how the school environment can affect school connectedness. School connectedness was found to be lower among students attending schools with challenging classroom management climates, schools that expel students for minor infractions, and schools that are racially/ethnically integrated (McNeely et al., 2002). On the other hand, students attending smaller and racially/ethnically segregated schools reported being more connected than students in larger schools (McNeely et al., 2002). In addition, students
who participated in extracurricular activities were more likely to receive higher grades, to not skip school, and to be attached to school than those who are not involved in extracurricular activities (McNeely et al., 2002).

In a critical analysis of student, school, and neighborhood characteristics, Thompson, Iachan, Overpeck, Ross, and Gross (2006) found that school connectedness was higher among younger students, females, and students with better academic performance. In addition, school connectedness was revealed to be higher in students who had greater involvement in extracurricular activities, greater self-rated physical attractiveness, and those who reported having more friends (Thompson et al., 2006). Students who were from two parent families and whose parents were more involved with school reported greater levels of school connectedness (Thompson et al., 2006). Consistent with the findings from McNeely et al. (2002), connectedness was greater among students enrolled in smaller schools, more racially homogeneous schools, and schools with more students from relatively wealthy households (Thompson et al., 2006, p. 384). Finally, according to the work of Thompson et al., school connectedness was higher in neighborhoods with a greater percentage of non-U.S. citizens and lower in neighborhoods that exceeded 20% of the population who rented rather than owned their domicile (Thompson et al., 2006). One reason postulated for this association was that students from families who rented their residences were observed to be living in temporary housing arrangements, thus perceiving that they were less connected to their school environment. Neighborhood characteristics, like those delineated by Thompson et al., have the capacity to influence policy decisions such as where to build new schools.
Importantly, the work of Thompson et al. significantly contributed to the body of literature on school connectedness by revealing these neighborhood characteristics to be influential to perceptions of connectedness to school.

In addition to being influenced by the environmental factors such as those found in the neighborhood and community, school connectedness is influenced by relationships that students have with adults and peers in the school. Blum (2005b) added to the importance of this perspective by stating, “We must recognize that people connect with people before they connect with institutions” (p. 4). According to Blum (2005b), school connectedness can be enhanced by a safe and supportive school environment. Children can benefit emotionally and academically from a school environment that is welcoming and provides them with a sense of belonging (Blum, 2005b).

Whitlock (2006) identified individual and contextual correlates to school connectedness among 8th, 10th, and 12th grade students. In specific, the work of this researcher explored the critical relationship between school connectedness and factors including: meaningful roles at school, safety, creative engagement, and academic engagement. Results from this study revealed that younger students in grades 8 and 10 reported greater connectedness than older students in the 12th grade (Whitlock, 2006). Further, females were more likely to feel connected to school than males (Whitlock, 2006).

School connection has been documented in the literature to be an important variable of influence over academic outcomes. In this regard, several authors have found that increasing the sense of school connection can improve educational motivation and
classroom engagement (Eisenberg et al., 2003; McNeely et al., 2002). Klem and Connell (2004) found that a strong sense of school connection was associated with improved student academic outcomes and school attendance, staying in school longer and receiving higher classroom test scores. According to the Wingspread Declaration (2004), students were more likely to succeed academically when they felt connected to school. Blum (2005a) rendered this opinion in regard to the influential role of school connectedness on academic outcomes. “In this era of accountability and standards, school connectedness can seem like a soft approach to school improvement. It can, however, have a substantial impact on the measures of student achievement for which schools are currently being held accountable” (Blum 2005a, p. 16).

Conversely, Blum (2005a) revealed that social isolation, a perceived lack of safety in school, and poor classroom management can compromise school connectedness. In addition, unsafe and ‘chaotic’ school environments do not provide the stability that students need to succeed academically (Blum, 2005a, p. 17).

**Perceived School Connectedness as an Influential Variable for Health-Risk Behavior**

In addition to the potential for school connections to improve academic outcomes, the important variable of school connectedness can bolster several health-related outcomes. The Wingspread (2004) Declaration provided support for the claim that school connection impacts health-risk behavior. In specific, school connection has been demonstrated to influence such varied outcomes as:

1. disruptive behavior,
2. school violence,
3. substance and tobacco use,
4. emotional distress, and

In addition to its influence on health-risk behavior, school connectedness as a protective factor against health-risk behavior is a relatively new research interest in the field of health education. Protective factors are identified as, “individual or environmental characteristics, conditions, or behaviors that reduce the effects of stressful life events; increase an individual’s ability to avoid risks or hazards; and promote social and emotional competence to thrive in all aspects of life now and in the future” (CDC, 2010, p. 3). Using this definition, protective factors include:

1. Personal characteristics such as positive view of one’s future,
2. Life conditions such as frequent parental presence in the home and at key times (after school or at dinner time),
3. Behaviors such as active participation in school activities, and
4. School connectedness (CDC, 2010).

The early work of Resnick et al. (1997) confirmed that school connectedness is an important protective factor against the engagement in health-risk behavior. This important study revealed that school connectedness was protective against a variety of health behaviors, including emotional health, violence, and substance use (Resnick et al., 1997). School connectedness was identified as the strongest protective factor for both boys and girls to decrease substance use, early sexual initiation, violence, and
unintentional injury (Resnick et al., 1997). Also, school connectedness was shown to decrease the important educational outcome of school absenteeism (Resnick et al., 1997).

Using primarily the constructs of social belonging and teacher support, McNeely and Falci (2004) used school connectedness to study outcomes related to cigarette smoking, alcohol use, marijuana use, suicidality, sexual intercourse, and weapon-related violence. Interestingly, they found that each of the dimensions of school connectedness has distinctive effects on the six health-related behaviors. Importantly, the authors found that teacher support is protective against the initiation of all six health-risk behaviors, and, when students feel their teachers care about them personally and care about their learning, they are more engaged in school and are more likely to do better academically (McNeely & Falci, 2004). It is possible that these students participate in fewer health-risk behaviors because of this connection. Surprisingly, teacher support was found to be only protective, as in preventative, for these six risk behaviors but had little to no effect on the reduction or cessation of health-risk behaviors for which students were currently involved (McNeely & Falci, 2004). The construct of social belonging was found to be protective against the initiation of two health-risk behaviors, occasional smoking and drinking to the point of getting drunk, which could suggest that these behaviors occur on more of a social dimension and are consequently not affected by teacher support (McNeely & Falci, 2004).

In continuation of the line of inquiry dedicated to studying school connectedness and health behavior, McGraw, Moore, Fuller, and Bates (2008) examined levels of school connectedness and emotional wellbeing; including measures of depression, anxiety, and
stress, among senior secondary school students in Australia. The study by McGraw et al. was performed in two phases, with participants being measured during the last year of senior high school (Time 1) and again one year later (Time 2). Results identified a statistically significant relationship for females in levels of connectedness (high/low) on depression, anxiety, and stress. In specific, high peer connectedness was identified as a protective factor against stress, anxiety, and depression during the last year of senior high school and a long-term protective factor against depression one year later (McGraw et al., 2008, p. 32). Depression can impact a student’s ability to function socially, emotionally, and academically, and can be disruptive to peer relationships, which could potentially explain the nature of the relationship discovered by McGraw and her colleagues.

**Teachers’ Role in Creating School Connectedness**

The importance of creating and fostering connectedness in schools cannot be understated. In addition, the importance of the teachers’ role in creating connectedness was supported by Blum (2005) who suggested that teacher support can guide students toward positive and productive behaviors and help students become engaged in their own achievement (Blum, 2005). Effective teachers can create connectedness in their classrooms by implementing strategies that make learning relevant and meaningful for students. Involving students in team-based learning activities, or cooperative learning, can help build connectedness in the classroom. Utilizing cognitive behavioral educational techniques by incorporating role-play to discuss resolution can help contribute to a positive school climate and enhance connectedness in the school environment (CDC, 2010). Affording students the opportunity to interact and resolve
conflicts that potentially arise among various cliques can be an effective strategy to providing social and emotional learning opportunities for students, as well (CDC, 2010).

One of the ways in which teachers can build connectedness in the classroom is through the use of connection building strategies. Vidourek, King, Bernard, Murnan, and Nabors (2011) found that on average, teachers use connection building strategies at least once a week (Vidourek et al., 2011). Some of the strategies teachers reported included:

1. Offering praise to students,
2. Calling students by their first names,
3. Using icebreakers to get students to know one another,
4. Smiling when teaching in class,
5. Using humor when interacting with students,
6. Trying to act as a positive role model,
7. Telling students you care about them,
8. Spending time engaging students in conversations about their daily lives,
9. Using cooperative learning in class,
10. Making small talk with students before/after class, and
11. Encouraging students to share their feelings (Vidourek et al., 2011, p. 120).

Vidourek et al. found that elementary school teachers (grades 1–3) used connection building strategies significantly more than middle level (grades 4–8) educators (Vidourek et al., 2011, p. 118). Teachers who felt positively connected to students reported using more connection-building strategies, as opposed to teachers who did not feel positively connected to students (Vidourek et al., 2011, p. 118). Despite the
multitude of instructional methods that could be used to connect with students, using cooperative learning, splitting students into small groups, encouraging students to talk to their parents, involving parents in student activities, and using icebreakers for students to get to know one another were the least frequently reported responses from teachers (Vidourek et al., 2011). Cultivating warm and positive relationships with students by virtue of connection-building strategies should become a priority among teachers, administrators, and all school personnel.

In addition to teachers, schools can play a role in improving connectedness among students. The Institute of Medicine (IOM; National Research Council and Institute of Medicine, 2004) identified steps that schools can take in order to improve connectedness among their students. These strategies included:

1. Ensuring every student has an advisor,
2. Providing mentorship programs,
3. Ensuring that course content is relevant to the lives of students, and
4. Providing experiential, hands-on learning opportunities (National Research Council and Institute of Medicine, 2004).

In context of the 2004 report from the IOM and other federal agencies who recommend specific actions to improve school connectedness, Blum (200a5) asserted, “We are responsible for our schools. We need to use what research and experience have taught us to create schools where students feel connected” (p. 19).
Parental Impact on School Connectedness

Similar to the responsibility of schools, parents can contribute to positive student relationships. Parent engagement in the home can support and bolster students’ academic achievement. Finn (1998) has identified three types of parent engagement in the home that can aid in school performance as:

1. Actively organizing and monitoring the child’s time,
2. Helping with homework, and
3. Discussing school matters with the child.

Consequences for students of uninvolved parents include poor developmental patterns, a lack of psychological maturity, social incompetence, and low self-esteem (Finn, 1989).

Given the significance of parent involvement on student achievement, Shochet, Smyth, and Homel (2007) examined the impact of parental attachment on adolescent perceptions of the school environment and school connectedness. Using students from an upper middle-class suburb, the authors identified a relationship between parent attachment and school connectedness. Perhaps more important than parent involvement, levels of parent attachment influence adolescents perception of the school environment and school connectedness (Shochet et al., 2007). Finally, these findings provided evidence that parental and school level factors influence levels of school connectedness among adolescents (Shochet et al., 2007). In addition, this study found that extracurricular involvement influenced school connectedness, but interestingly, that extra-curricular activity participation was strongly influenced by parent attachment (Shochet et al., 2007, p. 114). Because the relationship between parent attachment and
school connectedness is mediated by adolescents’ perceptions of the school environment, these findings have important practical suggestions for schools in improving connectedness among students (Shochet et al., 2007).

School Administrators and Connectedness

Other key stakeholders in promoting connectedness in school communities are administrative leaders. In this regard, Blum (2005a) asserted, “When a principal calls home, when he or she follows up every time a student misses school, students get the message that ‘in this school, all students are expected to succeed’” (p. 18). A document released by DASH (USDHHS Centers for Disease Control and Prevention DASH, 2009) identified strategies and actions for school administrators in fostering school connectedness, they included:

1. Strategy #1: Create processes that engage students, families, and communities and that facilitate academic achievement and staff empowerment;
2. Strategy #2: Provide education and opportunities to enable families to be actively involved in their children’s academic and school life;
3. Strategy #3: Provide students with the academic, emotional, and social skills they need to engage in school;
4. Strategy #4: Promote the use of effective classroom management and teaching methods to foster a positive learning environment;
5. Strategy #5: Provide professional development and support for teachers and other school staff to enable them to meet the diverse cognitive, emotional, and social needs of their students; and
6. Strategy #6: Create trusting and caring relationships that promote open communication among administrators, teachers, staff, students, family, and communities (USDHHS Centers for Disease Control and Prevention DASH, 2009).

Further, this 2009 document from DASH provides a framework for administrators committed to making these changes in schools under their leadership. Importantly, most of the strategies identified in the document require implementation of relatively small and inexpensive changes in school processes and policies. While not evident in the earlier literature, this resource identified youth at-risk for the opposite condition, called disconnectedness. Students with disabilities, students who are lesbian, gay, bisexual, transgender, or who question their sexual orientation, students who are homeless, or any student who is chronically truant were identified as those most at-risk for disconnectedness (USDHHS Centers for Disease Control and Prevention DASH, 2009, p. 4). Schools and administrators can help create positive and inclusive school environments especially in schools in which there is a more diverse student body.

Researchers have chronicled the importance of protective factors, such as school connectedness, in promoting the health of students enrolled in schools. In light of a mountain of evidence, the delivery of quality health promotion programs in schools is critical to achieving this goal. Available evidence on the topic has revealed common elements of effective health promotion programs. These programs share the following characteristic, they:

1. Ensure consistency and clarity in policies and messages;
2. Involve students as leaders and reward positive student behavior;
3. Provide positive adult role models and opportunities for family connections;
4. Ensure school commitment and support at all levels;
5. Use interactive programs that enhance development of interpersonal skills;
6. Conduct life skills training, including refusal and resistance skills, decision making, goal setting, assertiveness, bullying prevention, coping and communication;
7. Increase awareness about media and advertising influences, particularly regarding substance use and abuse; and
8. Avoid short-term interventions but employ multi-setting interventions, including school, family, media and community (Blum, 2005b p. 14).

**Perceived School Connectedness as an Influential Variable for Bullying Behaviors**

School disciplinary climates influence disobedience, disorder, and violence (Arum, 2011). According to the work of sociologist Emile Durkheim, youth confront schools as the first non-familial social institution, and this institution exposes them to adult social norms, values, and rules (Arum, 2011). In this sense, it is not surprising that 39% of high school teachers reported that student misbehavior interfered with their teaching in 2007–2008, and 45% said student tardiness and class cutting was a problem (Robers, Zhang, & Truman, 2010). The ability of educators to interfere in fighting or other violent school incidents is compromised by the fear of legal challenges that impede their ability to deal with student discipline, however, if students perceive school
discipline to be unfair or illegitimate, they are less likely to internalize and accept social norms. Arum (2011) asserted,

> While educators should avoid introducing ‘get tough’ authoritarian policies that students would perceive as illegitimate and would thus be counterproductive, administrators and teachers should be more proactive and responsive in addressing disciplinary problems, and work consistently to promote learning environments that are relevant and meaningful. (Arum, 2011, p. 13)

Student connection can form in context of school rules that are perceived by students to be fair and legitimate, and discovering how a school’s disciplinary climate affects student misbehavior is intriguing. As an example, Eisenberg et al. (2003) studied peer harassment in context of school connectedness and academic achievement. They found that among public school students enrolled in the 7th through 12th grade, girls reported more peer harassment than boys (Eisenberg et al., 2003). In addition, White and Native American students reported more harassment than other racial/ethnic groups (Eisenberg et al., 2003). Middle school students reported more harassment than high school students (Eisenberg et al., 2003). Other findings revealed that students who liked school all the time reported the least amount of peer harassment, and those who disliked school reported more frequent harassment (Eisenberg et al., 2003, p. 314). Interestingly, as it related to academic outcomes, students who received “B’s” reported the lowest levels of harassment, and the poorest performing students reported the most harassment (Eisenberg, et al., 2003, p. 314).
Researchers You et al. (2008) studied the role of school connectedness in mediating the relationship between students’ sense of hope and life satisfaction among three groups of students including:

1. Nonvictims,
2. Peer victims, and

These three groups were formed using student responses to the California Bully/Victim Scale (CBVS), which was developed to assess the power imbalance component of bully victimization and ultimately categorize students based on their victimization experiences (You et al., 2008, p. 450). According to these classifications, *Non-victims* were students who reported no victimization experiences, *Peer victims* were those students who reported some victimization, but no power imbalance with the perpetrator, and *Bullied victims* reported at least one type of victimization two to three times or more a month and perceived a power imbalance with the perpetrator (You et al., 2008, p. 450).

In their analysis, the authors found the Non-victim group reported greater hope, life satisfaction, and school connectedness compared to all three groups, which is not surprising given the bullying literature has well established this relationship (You et al., 2008, p. 452). Importantly, students who were in the Bullied victims category, or those that perceived a power imbalance with their peer victimizers, experienced significantly lower levels of school connectedness than both the Non-victims and Peer victims (You et al., 2008, p. 452). In contrast to other research findings, You et al. found that the
protective nature of school connectedness does not apply to students who are victimized by their peers (You et al., 2008, p. 456).

Published in the *Journal of School Violence*, O’Brennan and Furlong (2010) conducted a study on the relationship between students’ perceptions of school connectedness and peer victimization. School connectedness was measured using the original 6-item scale from the Add Health study (Resnick et al., 1997), and peer victimization was measured using three questions that tapped aspects of physical, verbal, and relational bullying. In addition, the authors measured student perceptions of potential reasons for their victimization using ethnicity and sexuality as response choices (O’Brennan & Furlong, 2010, p. 382). Results revealed that students in grade 8 were more likely to be victimized physically, verbally, and relationally than students in grade 10 and 12 and that students who reported a high connection to school reported the lowest rates of bullying (O’Brennan & Furlong, 2010, p. 384). Also, the authors found that physical forms of bullying had the most impact on levels of connectedness (O’Brennan & Furlong, 2010, p. 384). In support of the meaningful role that school connectedness plays in context of peer victimization, the authors asserted, “When students are able to meaningfully connect with those in their learning environment, schools can potentially reduce risk for peer victimization and subsequent social-emotional difficulties” (p. 388).

Examining the nature and extent to which bullying and victimization occur among students who have good peer relationships and positive peer groups associations is warranted. Further, studying students in their peer group associations can provide further clarity on how the social context affects bullying behaviors and victimization, school
connectedness, and academic outcomes. In Connected (Christakis & Fowler, 2009), a book about the science of social networks, authors Christakis and Fowler explained the influence of social context on behavior (in general) when he said:

Social networks can have properties and functions that are neither controlled nor even perceived by the people within them. . . . Complex examples include the notion of culture, or, the fact that groups of interconnected people can exhibit complicated, shared behaviors without explicit coordination or awareness.

(Christakis & Fowler, 2009, p. 25)

Researchers Pellegrini and Long (2002) have examined the association between peer groups and several important health-related outcomes. Interestingly, they found that the social environment profoundly impacts the behavior of individuals. In specific, if students are members of a peer group that supports pro-social behaviors, they are more likely to engage in those positive behaviors (Pellegrini & Long, 2002). On the other hand, when students are not part of a stable peer group they are more likely to be victimized or bullied and engage in health-risk behavior (Pellegrini & Long, 2002). In addition, these isolated students are less likely to do well academically in school, and are less likely to be connected to school (Pellegrini & Long, 2002; Resnick et al., 1997).

**Social Capital Theory**

Social capital theory is defined as, “social structures . . . which facilitate certain actions of actors within the structure” (Guillen, Coromina, & Sarris, 2011). Social capital may be generated through social ties within the school and extracurricular activities are a way for schools to help generate social capital, especially among disadvantaged students
and schools (McNeal, 1995). Broh (2002) asserted that the social capital paradigm can also elucidate the effects of sports participation on academic outcomes and could partially explain these educational advantages in students who participate in interscholastic sport. Interestingly, however, was the relationship between social capital theory and schools with larger and more prestigious sports programs. In fact, schools with larger and more prestigious sports programs have more disruptive school climates (Langbein, 2002). Similarly, larger schools will have a more difficult time fostering cooperative behavior than small schools. In smaller schools, students are more likely to know one another and are less likely to create incidents of violence when they know they will often see each other (Langbein, 2002).

Social capital theory, much like school connectedness, could play an important role in mediating two important variables in this study. First, social capital theory could help explain the social cohesion, or relationships, that benefit individuals participating in sports. Second, because of this group cohesion, the behaviors (bullying) in which individuals choose to partake could partially be explained by the extent to which the group, as a whole, participates in the behavior (i.e. homophily hypothesis; Cohen & Wills, 1985). In addition, social capital theory might partially explain the academic advantages or disadvantages of females who participate in interscholastic sports.

**Interscholastic Sports Participation**

With the publication of sociologist James Coleman’s 1961 seminal work, *The Adolescent Society: The social life of a teenager and its impact on education*, a research agenda emerging from a variety of disciplines focused on the role of adolescent *culture* in
Coleman concluded that adolescents did not care as much about their scholastic aptitude as they did about looking good, or being an athlete (Coleman, 1961). Importantly, Coleman’s work has established that adolescent society is one in which group norms shape behavior (Coleman, 1961).

**History of Interscholastic Sports Participation for Women**

Given the historical predominance of a male orientation to sports participation, early literature discussing the benefits of such engagement did not explore outcomes for women and girls as sports were thought to be a male-dominated institution (Taylor & Turek, 2010). In this context, sports were thought to reflect male stereotypes of dominance and aggression, making it difficult for female athletes to be accepted (Braddock, 2002). It was not until the 1970s that Title IX, of the Education Amendments of 1972 that mandated equal opportunities for girls and women to participate in school sponsored events. These programs included those at the college and high school level.
This legislation prohibited sex discrimination in any educational program, including sports programs, receiving federal funds (U.S. Department of Labor, n.d.). As a result, participation in sport increased opportunities for female participation. In 1975, the percentage of female athletic participation was 35% that of their male counterparts (Braddock, Sokol-Katz, Greene, & Basinger-Fleischman, 2005). In 2001, the rates of female high school athletic participation reached 69% of that of males (Braddock et al., 2005). According to the Youth Risk Behavior Surveillance System (YRBSSS), approximately 54% of students surveyed reported participating on one or more sports teams (school or community) in 2009. Of these students, approximately 43–45% were women (YRBSS Trends, 2009). In 2011, the number of students who reported participating in at least one sport had increased to 58.4%, with 52.6% of them being female (USDHHS, 2012). Interestingly, during the 2010–2011 school year, there were 3,173,549 females and 4,494,406 males who participated in interscholastic sports nationwide (National Federation of State High Schools Association Participation Survey, n.d., p. 2). Although the number of males participating in sport currently exceeds that of females, these data make it clear that young women are participating in sport more comparable to their male counterparts and significantly more than in previous decades.

Researchers have identified that high school students involved in athletics are more likely to participate during their sophomore years of high school (Hanson, 2007). In addition, male sophomores are more likely to participate in sport than their female grade-level counterparts. Research has confirmed that both male and female athletic participation decreases from sophomore to senior year (Hanson, 2007). It is hypothesized
that this decrease in sports participation among students in their junior and senior years of high school is related to a shift in focus to enrollment in more academically rigorous subjects in preparation for college admission (Silliker & Quirk, 1997).

Interscholastic Sports Participation as an Influential Variable for Health-Risk Behavior

Researchers have demonstrated that interscholastic sports participation can influence health risk behaviors among adolescent males and females. In addition to affecting academic outcomes, data from the YRBSS revealed that the overall relationship between sports participation and health risk behavior was, in general, beneficial (YRBSS, 2009). Importantly, however, the opposite condition has also been observed. Pate, Heath, Dowda, and Trost (2006) found that both male and female adolescent athletes consume more alcohol than their non-athlete counterparts (Denham, 2011). In addition, the work of Denham (2011) revealed that female high school athletes who were seniors reported more alcohol and marijuana use than non athlete girls their age (Denham, 2011). Race has been demonstrated to be a confounding variable in examining the relationship between athletic participation and substance abuse. According to Pate et al. (2006), male and female White athletes tend to drink and experiment with illicit substances more frequently than athletes representing other race/ethnic groups. Another influential variable potentially mediating the relationship between consuming alcohol and experimenting with illicit drugs was the type of sport in which younger athletes participate. Wichstrom and Wichstrom (2009) found that athletes who competed in
aerobic sports had lower levels of alcohol and cannabis use than those engaged in anaerobic sports.

By contrast, research has demonstrated that participation in athletics can bolster important health related outcomes. Among females, self-esteem was higher among those who participated in sports than their counterparts who did not participate in athletics (Taylor & Turek, 2010). Similarly, Taylor and Turek found that sports participation enhanced school adjustment and self-esteem in rural and urban high school girls.

Also, the health related benefits of athletic participation can be mediated by the school environment. Research has revealed that in a Los Angeles County public high school, the number of sports programs offered and participation rates were associated with various health-risk behaviors. For example, Cohen, Taylor, Zonta, Vestal, and Schuster (2007) found juvenile arrest rates and teen birth rates were lower in schools that offered more extracurricular sports. Langbein (2002) found that larger schools had more delinquency than smaller schools, but that sports programs can help reduce delinquency in larger schools. Although the relationship observed between these variables was not causal in nature, it is clear that increasing opportunities for involvement in extracurricular sports for students, particularly for girls, has been shown to be a protective factor against the engagement in some health-risk behavior for males and females.

**Extracurricular Activities and Academic Outcomes**

In the field of school counseling, extracurricular activity participation (EAP) has been confirmed to be as a factor associated with desirable student outcomes and has been identified as one way to promote learning. Silliker and Quirk (1997) found that students
involved in EAP had higher career aspirations, better school attendance, improved social
standing among peers, and reduced delinquency than those not involved in EAP (Silliker
& Quirk, 1997). Research has demonstrated that all extracurricular activities (EA): band,
cheerleading, and interscholastic sports, do not provide equal benefits to students.
Coleman (1965) and his colleagues found that interscholastic sports offer greater
structure, larger social networks, and higher social status than other EA’s (Coleman,
1965; Finn, 1989). In addition, differences in interscholastic athletic participation versus
intramural athletic participation have been demonstrated to be profound in the literature.

Intramural athletes are not as academically advantaged as their counterparts who
participate in interscholastic athletics (Broh, 2002). Surprisingly, in one study a
significant negative relationship to intramural athletic participation and math and English
grades was revealed (Broh, 2002). In this regard, while Lipscomb (2007) found that
scholastic athletic participation was associated with a two percent increase in math and
science test scores, club sport participation was associated with only a one percent
increase in math test scores. In addition, Lipscomb found no significant effects on
science scores. In this study, female athletes were demonstrated to reap more academic
benefit than males who participated in scholastic sports (Lipscomb, 2007).

Interestingly, students engaged in music-related EAs were found to receive
similar academic benefits as their counterparts who played interscholastic sports (Broh,
2002). Conversely, participation in cheerleading and other traditional female activities
was demonstrated to be related to lower levels of success in science among female
participants (Hanson, 2007). Interscholastic sports, however, proved to be the most
beneficial form of extracurricular participation on promoting achievement for secondary school students (Broh, 2002). In general, the research on extracurricular activities has revealed that involvement in a number of EAs is associated with an improved grade point average, higher educational aspirations, and reduced absenteeism (Marsh, 1992; McNeal, 1995). Because of these associations, numerous studies in the literature have examined the relationship between interscholastic sports participation on academic outcomes, specifically.

**Interscholastic Sports Participation and Academic Outcomes**

The work of Broh (2002) has revealed that participation in athletics among 10th and 12th grade students was associated with improved academic outcomes. Further, participation in sports while in these grades in school was shown to improve self-esteem, locus of control, and time on homework (Broh, 2002). In addition, participation in sports among 10th and 12th grade students increased social ties between students and parents and students to school (Broh, 2002). As a result, the connections fostered through athletic participation can benefit students personally and socially. Soltz (1986) revealed that high school athletes had higher GPAs than their non-athlete counterparts. In addition, research has identified that the benefits athletes receive compared to their classmates who do not participate include:

1. Better grades (Eccles & Barber, 1999; Eitle & Eitle, 2002; Silliker & Quirk, 1997)

2. Higher educational and occupational aspirations (Marsh & Kleitman, 2003; Otto & Alwin, 1977), and
3. More positive attitudes toward school (Eccles & Barber, 1999).

Snyder and Spreitzer (1990) offered the following about the benefits of sports participation, maintaining that sports can lead to:

1. Increasing interest in school,
2. Bolstering self-concept,
3. Increasing attention from teachers and coaches, and
4. Membership with others who are academically oriented (Snyder & Spreitzer, 1990).

In addition, Shulrul, Tumen, and Tolly (2008) found that athletes who participated in team sports showed higher literacy scores than athletes who participated in individual sports. Some literature has demonstrated that interscholastic sports had no effect on student academic performance, as measured by standardized test scores (Marsh, 1993; Melnick & Sabo, 1992).

Research on athletes has revealed relationships between the academic performance and academic outcomes among athletes who are in-season versus those who are out-of-season. The work of Laughlin (1978) found a significant relationship between the academic performance of high school wrestlers in-season and out-of season, where GPAs were better in-season. Silliker and Quirk (1997) found that in-season soccer players, both males and females, had significantly higher GPAs than when out-of-season (Silliker & Quirk, 1997). Durbin (1986) and Silliker and Quirk (1997) found that athletes receive higher grades during season than out-of-season, as well (Durbin, 1986; Silliker &
Quirk, 1997). Results from these studies suggested that regardless of the type of sport, being in-season versus out-of-season is an important contextual factor.

The amount of individual participation (high vs. low) can also affect student academic performance. Stegman and Stephens (2000) found differences among high versus low participation athletes, with the high participation athletes outperforming the low-participation athletes in GPA, math GPA, and class rank. In addition, high participant female athletes outperformed low participant female athletes as well as low participant and non-participant males and females.

Race is a variable that can influence health risk behavior as well as influence academic outcomes. Rees and Sabia (2010) found that the positive academic gains in math and English GPAs were greater for White as compared to Black and Hispanic women and men (Rees & Sabia, 2010). Further, participation in sports was shown to have a significant positive effect in the science experience among White and upper class young women (Hanson, 2007). Conversely, participation in athletics was shown to have a negative effect in the science experiences among African American women (Hanson, 2007).

A few studies to date have explored the link between peer crowd identification (viewing oneself as a jock) and academic outcomes. Interestingly, this new topic of interest in the literature has examined the relationship between what one does (participation in athletics) and how one perceives herself or himself (Miller, Melnick, Barnes, Farrell, & Sabo, 2005). Regarding this distinction, Miller et al. (2005) found that female athletes reported higher grades than their non-athlete counterparts (Miller et al.,
2005). Self-identified female jocks reported lower grades than females who were not self-identified jocks (Miller et al., 2005). Previous research has revealed somewhat conflicting findings on the relationship between sex, race, and educational outcomes.

Interscholastic Sports Participation as an Influential Variable for School Connectedness

Students who participate in sports may be or are likely to benefit personally and socially. Fox, Barr-Anderson, Neumark-Sztainer, and Wall (2010) recognized that sports give students an opportunity to practice the attitudes, skills, and values that are important for future success. Other researchers have affirmed that interscholastic sports participation can provide students with:

1. A sense of unity, identification, and personal identity (Fredricks & Eccles, 2006),
2. Connections among other students, and
3. A sense of accomplishment and self-confidence (Fredricks & Eccles, 2006; Marsh & Kleitman, 2003).

Developmental theorists posit that participation in organized athletics can enhance attachment to school as well as to reinforce pro-social behavior (Hanson, 2007). An athlete’s sense of cohesion and social contribution has been shown to be dependent on his or her status within the team. Higher status, or athletes who are starters or who are on first teams, held greater perceptions of satisfaction for ability utilization, team social contribution, and personal dedication than lower status (non-starter) athletes (Jeffery-Tosoni, Eys, Schinke, & Lewko, 2011), indicating that these higher status
athletes may be more connected than low-status athletes. Also, non-starter athletes perceived less social cohesion within their team than starters (Jeffery-Tosoni et al., 2011). While the connection that athletes have to one another can create a sense of unity and cohesion, it can also create a sense of dissatisfaction among individuals in a team environment.

An examination of the role of enjoyment and motivational climate in relation to the personal development of team sport athletes revealed that positive experiences in sport were most strongly predicted by peer affiliation, self-referenced competency, effort expenditure, and task climate (MacDonald, Cote, Eyes, & Deakin, 2011). High levels of connectedness with peers and higher effort during activity lead to more opportunities for goal setting (MacDonald et al., 2011). Conversely, negative experiences were predicted by an ego climate (evaluating ability based on outperforming others) and other-referenced competency (comparing oneself to others; MacDonald et al., 2011). The strongest predictor of personal and social skills was affiliation with peers, in which positive interactions can be beneficial to the development of these skills. These data suggested that creating a positive environment that encourages peer affiliation and personal achievement can foster the positive development of team sport athletes.

Finally, adolescent girls must face the challenge of defining a female identity. While undergoing physical, biological, and emotional changes during the process, this can be a profoundly vulnerable point in a female athlete’s life. As part of this development, her character will be shaped by relationships, including friendships, peer affiliations, dating relationships, and role models. Research has shown that young
women who participated in intramural activities, like interscholastic sports, are less likely to engage in antisocial behavior and benefit from an increase in self-confidence (Eitle, 2005; Hanson & Kraus, 1999; Perry-Burney & Takyi, 2002). Finally, the relationships developed and fostered within a team environment can enhance a girls’ physical, social, and moral development.
CHAPTER III

METHODOLOGY

The purpose of this study was to analyze the relationship between bullying others, perceived school connectedness, academic achievement, and selected demographics among female high school athletes.

Approvals

The Institutional Review Board at Kent State University granted approval of this research project in March 2012. In addition, approval to conduct this research was granted by the three members of the principal investigator’s dissertation committee in May of 2012. Finally, several other approvals were required prior to beginning the data collection process. These approvals were solicited from:

1. The participating school district,
2. The participating school principals, and
3. The coaches for each athletic team.

Permission to access female athletes from seven schools located in an urban area in Northeast Ohio was solicited from the school district’s Research and Testing Office in April 2012. In June 2012, permission was granted to access three out of the seven schools. In maintaining the stipulations outlined by the school district, permission was solicited from each building principal. Once permission was obtained, the coaches for each team were contacted. In some cases, the athletic director was used to facilitate this communication. In two out of the three schools, the principal facilitated the participation of coaches. In the other school, the athletic director was used to solicit participation.
among coaches. Whether initial contact was made through the help of the building principal, athletic director, both the principal and athletic director, or principal investigator, the coaches were contacted via email. A total of 10 coaches for 10 teams were asked to participate in the research.

Identification of the Population

According to the Ohio High School Athletic Association’s Conference Membership website, there are 78 athletic conferences in the state of Ohio. Initially, one of the 78 conferences was selected as the population for this study. This one athletic conference consisted of seven schools. Of those seven schools, three schools were willing to participate in the research. While the original population was this one athletic conference, the study was limited to the female athletes in three schools. As discussed earlier, bullying among females is characterized separately than that among males. Thus, the population for this study was female athletes in three schools. Other criteria for the population included in-season athletes participating in one of four OHSAA sanctioned sports. The following sports were eligible as female in-season teams: soccer, volleyball, tennis, and cross country. Some of the schools in the sample did not offer all four sports so those sports not offered were not included in the study. The total number of eligible teams was 10 including two soccer, three volleyball, two tennis, and two cross country teams. Data were collected beginning in the month of August and continued through October 2012.

The schools used in the sample consisted of what is identified as triple A (AAA) and double A (AA) governance classifications. The schools’ enrollment data for males
and females is used to determine the OHSAA governance classifications of AAA and AA for the 2011–2012, 2012–2013 academic school years (SY). The figures for enrollment are provided by the Ohio Department of Education, and according to these data, the following governance classifications for each of the three schools used in this study are included in Table 5.

**Table 5**

*Enrollment Data and Governance Classifications per School*

<table>
<thead>
<tr>
<th>School</th>
<th>Enrollment Male</th>
<th>Enrollment Female</th>
<th>Governance Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>School #1</td>
<td>358</td>
<td>352</td>
<td>AAA</td>
</tr>
<tr>
<td>School #2</td>
<td>488</td>
<td>558</td>
<td>AAA</td>
</tr>
<tr>
<td>School #3</td>
<td>378</td>
<td>378</td>
<td>AA*</td>
</tr>
</tbody>
</table>

Source: Enrollment data were provided by the Ohio Department of Education.

*Men/women athletics received different governance classifications for this school.

Because the governance classifications are based on enrollment data, this was an indication of the size of the school. Given these data, the sports used in this study are either AA or AAA status. Governance classifications are determined by the enrollment figures for both males and females in each school, though only female athletes were used for this study.

In addition to studying female athletes, the variable of race was used as part of the analysis for this study. As such, the National Center for Education Statistics (NCES) is a
resource that provides information as it pertains to the demographic characteristics of students enrolled in public schools across the country. Similar to the enrollment data provided by the Ohio Department of Education, the Elementary and Secondary Information System (ELSi), is the web-based tool that allows users to access school level data broken down by race. According to these public data, the distribution of the student population for each school is provided in Table 6.

Table 6  
Race Classifications per School

<table>
<thead>
<tr>
<th>School</th>
<th>American Indian/Alaskan Native</th>
<th>Asian or Pacific Islander</th>
<th>Black or African American</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>School #1</td>
<td>1</td>
<td>8</td>
<td>669</td>
<td>8</td>
<td>191</td>
</tr>
<tr>
<td>School #2</td>
<td>2</td>
<td>22</td>
<td>661</td>
<td>13</td>
<td>537</td>
</tr>
<tr>
<td>School #3</td>
<td>3</td>
<td>2</td>
<td>447</td>
<td>3</td>
<td>362</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>32</td>
<td>1777</td>
<td>24</td>
<td>1090</td>
</tr>
</tbody>
</table>


As indicated in Table 6, the student population total when adding up each of the three schools indicated a majority of students ($n = 1777$) were Black or African American, followed by White ($n = 1090$), Asian or Pacific Islander ($n = 32$), Hispanic ($n = 24$), and Native Indian/Alaskan Native ($n = 6$). The literature has demonstrated differences with regard to race and health-related outcomes (Braddock et al., 2005). In addition, there was
evidence to suggest that race was an important variable in academic outcomes for women (Hanson, 2007). Thus, the selection of a population where there was racial diversity was appropriate.

**Research Design**

This study design was a form of non-experimental research. In specific, this study used a cross-sectional design with purposive sampling. The variables of self-reported bullying others, perceived school connectedness, academic achievement, and selected demographics were studied as they naturally occur among the group under investigation. A cross-sectional design allowed for an analysis of variables for a single period and no attribution of cause between these variables was made. Further, data for this study were collected using an anonymous, paper-pencil instrument.

**Instrumentation**

**Formatting**

The script that was read to students and the instrument that was implemented in this study were formatted consistent with the tailored design method for mail and Internet surveys as discussed by Dillman (2000). According to Dillman,

Tailored Design (TD) attempts to shape elements of design and implementation in ways that take into account critical differences in survey populations, sponsorship, and content. It then builds on those differences in order to shape the most effective method for achieving a response. (Dillman, 2000, p. 25)
Although neither a mailed nor an Internet-based survey was used in this study, the instrument was formatted using Dillman’s recommendations in an attempt to achieve a high item response rate and to ensure readability (Dillman, 2000).

In total, 54 items contained in four scales were used for this instrument. Specifically, one of the instrument scales, taken from the Youth Risk Behavior Surveillance System (YRBSS; CDC, 2009/2011) measured demographic variables including subject age and race. Three additional scales were used in this instrument to measure each of the following:

1. Self-reported bullying others (Parada, 2000).
2. Perceived school connectedness (Resnick et al., 1997; Whitlock, 2006)
3. Self-reported grades in school (YRBSS; CDC, 2009/2011)

**Bullying Others Scale**

The scale that was used to measure bullying others was taken from a 2011 document released by the Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control, Division of Violence Prevention (NCIPC-DVP) *Measuring Bullying, Victimization, Perpetration, and Bystander Experiences: A Compendium of Assessment Tools* (Hamburger, Basile, & Vivolo, 2011). In specific, the *Adolescent Peer Relations Instrument* (APRI) was used to assess bullying others in this study as it was an appropriate measure of these roles among youth ages 12–17 years. Permission (Appendix B) was sought from the original author, Parada (2000), who developed the *APRI* found in this compendium.
In its original design, the APRI contains items that are measured on a 6-point Likert scale with a range of responses from 1 (Never) to 6 (Everyday). A total score is calculated for the variable of bullying others, with a minimum score of 18, indicating that a student has never bullied others, and a maximum score of 108, indicating that a student bullies others in every way, every day. The original Cronbach’s alpha for the bully scale (section A) was .93 (Parada, 2000), suggesting a high degree of internal reliability.

**Modifications to Bullying Others Scale**

The study sought to modify the response choices on the APRI instrument. Instead of response categories represented on a 6-point Likert scale, the response categories were on a 5-point Likert scale. To eliminate the confusion between sometimes and once a week, these two response categories were combined to form the statement once or twice a week. In total, response choices were Everyday, Several times a week, Once or twice a week, Once or twice a month, and Never.

After making these modifications, the reliability score for the bullying others scale was .88. This reliability score revealed that the modification to the original instrument did not adversely affect the ability of the instrument to produce consistent responses for measuring bullying.

**Perceived School Connectedness**

The perceived school connectedness scale was measured through the combination of two scales and one question from another source. The first part of the scale consisted of the five items used in the National Longitudinal Study of Adolescent Health (ADD Health) to measure student connection to school (Resnick et al., 1997). Subjects were
asked to indicate their agreement on a 5-item Likert scale ranging from 1 (*Strongly Disagree*) to 4 (*Strongly Agree*) with the following statements:

1. I feel close to people at this school,
2. I feel like I am a part of this school,
3. I am happy to be at this school,
4. Teachers treat students fairly,
5. I feel safe in my school.

The reliability score for this original 5-item school connectedness scale was .79 (Resnick et al., 1997, p. 140). Because data collected from the ADD Health study is part of public domain, permission was not necessary to use this scale.

The second portion of the connectedness scale was derived from the 7 items used by Whitlock (2006) to measure student connection to school. Subjects were asked to indicate their agreement on a 4-item scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) with the following items:

1. Adults at my school care about people my age,
2. At school there is a teacher or some other adult who believes I will be a success,
3. Adults in my school listen to what I have to say,
4. Adults at my school push me to do my best,
5. I care about the school I go to,
6. I trust the adults in my school, and
7. Adults don’t respect what people my age think.
The reliability score for the 7-item scale used by Whitlock (2006) was .81 (p. 17). Permission to use these school connectedness items was sought and obtained from the original author (Appendix B).

The last part of the connectedness scale included one item from the 2011 YRBSS questionnaire and asked students if they have talked to an adult in the school about a personal problem they had (Question #97). This item was added to the school connectedness scale because it measures the extent to which adolescents report talking to an adult about a personal problem they had instead of just the perception of support from adults in the school as measured by the other 11 items in the connectedness scale.

**Modifications to School Connectedness Scale**

In total, the 12-item instrument which measured students’ perception of school connectedness was constructed using the original Resnick et al. (1997) 5-item scale, 6 of the 7-items used by Whitlock (2006), and 1 additional item coming from the YRBSS 2011. In total, this scale primarily utilized the constructs of belonging, teacher support, and safety as the theoretical underpinning. Hypothetically, these constructs would be affected by interscholastic sports participation. Finally, these constructs were salient to measuring school connectedness as research in the field has found that school connectedness can be assessed in a variety of ways (McNeely et al., 2002).

Reliability statistics were performed to assess the differences in alpha scores after the modifications to the connectedness scale were made. According to these data, the reliability scores for the 12-item scale had a reliability score of .784, which was an
indication that the modifications did not adversely affect the overall reliability and was appropriate for use in this study.

**Demographic Questions, Age**

The question pertaining to subject age was derived from the YRBSS instrument, which is a public data set for which permission was not necessary. The demographic question pertaining to age in the most recent version of the YRBS (2011) included the following response choices:

1. 12 years old,
2. 13 years old,
3. 14 years old,
4. 15 years old,
5. 16 years old,
6. 17 years old, or
7. 18 years old or older.

**Modifications to Age**

The response choices for age used in this study were slightly modified from the YRBS item. The response choice of *18 years old or older* was changed to *18 years old* as OHSAA bylaws dictated that 9th through 12th grade students who turned 19 prior to August 1<sup>st</sup>, 2011, were not eligible to participate in sports. Therefore, this item was adapted to suit the population of student athletes used in this study (OHSAA, 2011-2012). Similarly, the responses of *12 years old* and *13 years old* were omitted since this study only used high school students. Finally, subjects were given *14 years old, 15 years old,*
16 years old, 17 years old, and 18 years old as response categories for this instrument and the items were measured on a continuous scale.

**Demographic Questions, Race/Ethnicity**

The measurement of race/ethnicity was derived from the YRBSS (2011) instrument and was measured using seven response categories. Subjects were directed to select “one or more” response categories, which included:

1. American Indian or Alaska Native,
2. Asian,
3. Black or African American,
4. Native Hawaiian or Other Pacific Islander,
5. White,
6. Hispanic, or
7. Latino.

**Academic Achievement (AA)**

The scale used to measure academic achievement (AA) was derived from the YRBSS (2011). According to this instrument, the following response categories as they pertain to AA included:

1. Mostly A’s,
2. Mostly B’s,
3. Mostly C’s,
4. Mostly D’s,
5. Mostly F’s,
6. None of these grades, or
7. Not sure.

**Modifications to Academic Achievement (AA)**

Five response categories of *Mostly A’s, A’s and B’s, Mostly B’s, B’s and C’s, and Mostly C’s* provided the measurement scale for academic achievement in this study. According to OHSAA bylaws, athletes must be receiving passing grades in a minimum of five one-credit courses (or equivalent) to be eligible to participate in athletics (OHSAA, 2011–2012). Student athlete eligibility is determined based on students’ receiving passing grades. Because of this eligibility requirement, response categories of *Mostly D’s or below* were not necessary to include with the study sample. Instead, response categories included:

1. Mostly A’s,
2. Mostly A’s and B’s,
3. Mostly B’s,
4. Mostly B’s and C’s, and
5. Mostly C’s.

**Operationalizing the Variables**

**Bullying Others**

The instrument items that measured participation in bullying were measured on a continuous scale and included 18 items for each participant role of bullying (Parada, 2000). Subjects were asked to report bullying that has occurred since the beginning of the current sports season. The categorical responses ranged from *Never* to *Everyday*, with
specific responses including *Never, Once or twice a month, Once or twice a week, Several times a week*, and *Everyday* as modified to 5 response categories based on the original *APRI*. Each of these items was coded 1–5, and a total was calculated for each case. A lower score represented low levels of bullying others and a higher score represented high levels of bullying others. Scores could range from a low of 18, to a high of 90, provided subjects answered all items.

**Perceived School Connectedness**

The 12-item scale measuring perceived school connectedness was measured on a Likert scale and each item had four response categories that ranged from *Strongly Disagree* to *Strongly Agree*. The order of the response choices was *Strongly Disagree, Disagree, Agree*, and *Strongly Agree* (Resnick et al., 1997; Whitlock, 2006). Each of these categories was coded 1–4, with a lower score corresponding to low levels of connectedness and a higher score signifying high levels of connectedness. Scores ranged from a low of 12, to a high of 48, provided subjects answered all items.

**Demographics**

Age was coded 1–5, with 1 representing a 14-year-old subject and 5 representing an 18-year-old subject. Race was coded 1–7, with each nominal response representing one race, and a score of 8 signifying subject selected more than one race. The academic achievement item was coded 1–5, with 1 representing low grades (*Mostly C’s*), and 5 representing high grades (*Mostly A’s*), therefore, scores ranged from 1–5.
Data Collection Protocol

Setting Up Data Collection

In addition to the stipulations mandated by the school district, data collection processes were in compliance with the directions set forth by the Kent State Institutional Review Board. Once permission from the coach was obtained, a date and time were arranged to meet with the coach. In this meeting with the coach, parent consent forms were distributed. Coaches were given an envelope containing blank parent consent forms and a script to read to the athletes (see Appendix C). Two coaches requested the parent consent forms to be sent to them electronically. To comply with this request, the consent form was sent using an email attachment and a script was provided in the body of the email.

Student athletes were asked to have parents sign and return the consent forms, and coaches determined a timeline for the collection of parent consent forms. A follow-up (post initial meeting) email was sent to each coach. In this message, they were asked if there were any questions pertaining to the securing or collection of parent consent forms. The time frame for the distribution and collection of the parent consent forms varied across teams and schools. When this process was complete, a day and time to collect data from student athlete subjects was arranged.

The Day of Data Collection

Subjects were asked to complete the instrument prior to or after one practice session. On the day of data collection, no subjects refused to complete the instrument.
For eight out of the nine teams, data were collected prior to a practice session. One team completed data collection after a practice session.

On the day of data collection, the envelope of signed parent consent forms was collected from the coach. Coaches were asked to not discuss the instrument with the athletes. Coaches were also directed to remain on-site (practice location) until all instruments were completed. Those athletes whose parents signed the consent form were given an envelope containing a participant consent form, direction sheet, and blank instrument. Subjects who were not participating were given an envelope containing a word search puzzle to complete. Then, subjects were instructed to take the materials from the envelope and follow along as directions were read to them.

After the directions were read, the subjects were reminded that they were free to withdraw at any time without penalty. In addition, subjects were reminded that there were no right or wrong answers to the questions on the instrument. Finally, prior to completing the instrument, subjects were asked to read and sign the participant consent form.

Subjects were instructed to separate themselves in a designated location (hallway, gym, field) and begin providing responses to the instrument, during which time subjects were reminded not to share their answers verbally (out loud) or with anyone sitting near them. When finished providing responses to the instrument, subjects returned their completed instrument to the envelope and returned the envelope containing the completed instrument and signed participant consent form.

To ensure that participant consent forms and completed instruments could not be linked to one another, participant consent forms and completed instruments were
physically removed from the envelope and separated into piles so that participant consent forms were in one pile, and completed instruments were in another pile. On average, student athlete subjects took 15–20 minutes to complete the data collection process. Finally, the process of data collection began in August 2012 and was concluded in October 2012. Data were collected from a total of nine out of 10 teams.

The completed instruments were placed in an envelope and were stored in a box in a secured campus location until the data were entered and analyzed. The signed consent forms (both parent and participant) remained in an envelope in the same campus location. No coaches, parents, athletic directors, teachers, or administrators in the school ever had access to the completed instruments. The instruments themselves were stored in a locked office in Nixson Hall on the campus of Kent State University.

**Data Analysis Protocol**

Data were entered and analyzed using the IBM Statistical Package for the Social Sciences (SPSS) Statistics 20. Data entry was conducted by the principal investigator. Data cleaning took place and missing data were discarded prior to performing any analyses. Frequencies and descriptive statistics were calculated for all dependent and independent variables used in the study. In addition, several one-way and two-way analysis of variance tests were applied to test hypotheses one through nine. Finally, data were analyzed using a correlation analysis to test hypothesis 10.
Limitations

Study Design-Generalization

Due to the cross-sectional nature of this study design, the results were limited to only the population of athletes in the schools for which sample data were collected. Generalizations beyond this population cannot be made. According to Bordens and Abbott (2005), “simply observing that changes in one variable that tend to be associated with changes in another is not enough to establish that the relationship between them is a causal one” (p. 98). Due to the cross-sectional design of this study, no longitudinal or causal relationships can be inferred.

Another limitation to using a cross-sectional design has to do with the study’s internal validity. According to Campbell and Stanley (1963), internal validity consists of the ability of the research design to accurately test the research hypothesis. One threat to internal validity is the lack of control over confounding variables. According to Bordens and Abbott (2005), confounding variables are “two or more variables that combine in such a way that their effects cannot be separated” (p. 110). Due to the cross-sectional design, confounding variables are acknowledged as a potential limitation of this study. On the other hand, the purposive selection of subjects from the same school district and athletic conference was done to account for underlying differences among subjects.

Self-Report Measures

Self-report measures were used in this study. In specific, a Likert scale was used to measure the subject’s level of agreement to a statement. As a way to quantify the dependent variables used in this study, the Likert scale items were coded 1–5 and a
composite score was created for each dependent variable. One of the concerns (limitations) to using a Likert scale was the degree to which participants responded in valid ways. For example, students may not be able to accurately assess the extent of their prior participation with bullying others. Another limitation to using self-report data is that the researcher has little control over whether or not subjects are reporting the truth. In this study, this lack of control is acknowledged as a potential limitation because subjects might not have been willing to admit to socially undesirable behavior such as bullying others.

Another limitation pertaining to use of self-report data was recall bias. Recall bias is used to describe a type of bias generated from the subject’s lack of memory (recall). For example, recall bias in this sample was a limitation when subjects were given the instrument in October versus subjects who were given the instrument in August or September. The potential recall bias was greater in October than it was in September. Another limitation to this study was response bias, which occurs when subjects intentionally respond incorrectly to the questions in the instrument. This type of systematic error has been acknowledged as another limitation of self-report data.

The Pilot Study

A small pilot study was conducted to emulate the procedures that would take place for the main study. In addition to the data collection procedures, the instrumentation was piloted and no revisions in instrument design were necessary.

Prior to conducting a pilot study, approval was obtained from the Kent State Institutional Review Board at Kent State University (Appendix D). In addition, permission from the building principal at the participating school was granted (Appendix
Data collection took place at a high school in northeastern Ohio and was collected from a potential pool of 35 female athletes. Prior to data collection, 31 of 35 parent consent forms were collected. Of the 31 forms, 24 indicated parent consent. On the day of data collection, three athletes handed in parent consent forms, two granting consent and one not. Overall, the 25 students who had parent consent were present on the day of data collection and also granted their own consent to participate in the study.

The pilot study was helpful in allowing the researcher to examine the data collection process. In addition, the data collected were examined statistically to gauge the extent to which the instrument provided reliability across all scales and subscales. The coaches were responsible for distributing and collecting the parent consent forms prior to data collection. Coaches were given a recruitment script to read to the athletes prior to distributing the parent consent forms. Per the suggestion of the coach, this turnaround time was one day. The return rate for consent forms was 97% (34/35) and the response rate was 73.5% (25/34).

On the day of data collection, the primary investigator met the athletes in a common area (lunch room) of the school. Although this was not an ideal location for data collection because of the “open” space, the coach insisted that securing multiple classrooms to accommodate the number of athletes would be difficult. Students were handed an envelope with their name on the outside on a removable adhesive sticker. Once all envelopes were distributed, the athletes were asked to take out the contents of envelope. Students whose parents did not grant consent had a word search puzzle in their envelopes rather than an instrument. Because of this, there was some expressed confusion...
as these students might not have known that their parents did not grant consent for them to participate. To remedy this situation, during the main data collection the coaches were asked to communicate to the athletes that they were to discuss the consent form with their parents. After the removal of the materials, the athletes were told to read through the participant consent form, sign the consent form, all of which took approximately 2–3 minutes. Once finished, subjects were asked to read along as the script was read to them. The primary investigator asked if there were any questions before beginning. When no questions were asked, the primary investigator told students to begin completing the instrument and when finished to return the materials to the envelope and bring to the primary investigator.

From beginning to end, the process took approximately 15 minutes, which was consistent with the hypothesized time frame for instrument completion. Once all envelopes were returned, the primary investigator created two separate piles for consent forms and instruments. Then, the primary investigator shuffled the order of papers in each pile and placed them in an envelope.

The data were entered and analyzed using the IBM SPSS Statistics 20 package and assessed based on the frequency of responses across each instrument scale. This analysis indicated a varied set of responses for each instrument item and across all scales including bullying, victimization, and school connectedness. Importantly, all subjects responded to every item on the instrument, which suggests the instrument was appropriate for the study population.
Reliability scores were conducted for each scale and subscale on the instrument. The reliability analysis for scales of total bullying (.881), victimization (.943), and connectedness (.784) were high. Cronbach’s alpha for the subscales of victimization in physical, verbal, and relational bullying were .794, .884, and .882, respectively, and the alpha scores for the bullying others in physical, verbal, and relational ways were .807, .735, and .717, respectively.

Results from the pilot study process revealed that the time frame allotted for the return of signed parent consent forms was appropriate. In addition, the time allowed for completing the instrument was sufficient. At the time of administration, no significant questions were raised about the items on the instrument, indicating that the instrument was readable to the target audience. Despite the ease at which the pilot study progressed, a few minor changes were considered for phase two. As part of these adjustments, the primary investigator introduced and overviewed the background of the researcher prior to the delivery of the instrument. Participants were ensured that the instrument was completely anonymous and that the answers they provided were neither correct nor incorrect.

**Research Hypotheses**

**Null Hypothesis 1:** There was no difference in levels of bullying among female athletes according to age.

**Alternative Hypothesis 1:** There was a significant difference in levels of bullying among female athletes according to age.

**Null Hypothesis 2:** There was no difference in levels of bullying among female athletes according to race.
Alternative Hypothesis 2: There was a significant difference in levels of bullying among female athletes according to race.

Null Hypothesis 3: There was no difference in levels of bullying among female athletes according to prior achievement.

Alternative Hypothesis 3: There was a significant difference in levels of bullying among female athletes according to prior achievement.

Null Hypothesis 4: There was no difference in levels of connectedness among female athletes according to age.

Alternative Hypothesis 4: There was a significant difference in levels of connectedness among female athletes according to age.

Null Hypothesis 5: There was no difference in levels of connectedness among female athletes according to race.

Alternative Hypothesis 5: There was a significant difference in levels of connectedness among female athletes according to race.

Null Hypothesis 6: There was no difference in levels of connectedness among female athletes according to prior achievement.

Alternative Hypothesis 6: There was a significant difference in levels of connectedness among female athletes according to prior achievement.

Null Hypothesis 7: There was no difference in levels of bullying among female athletes according to age as age is averaged across race.

Alternative Hypothesis 7: There was a significant difference in levels of bullying among female athletes according to age as age is averaged across race.
Null Hypothesis 8: There was no difference in levels of bullying among female athletes according to race as race is averaged across age.

Alternative Hypothesis 8: There was no difference in levels of bullying among female athletes according to race as race is averaged across age.

Null Hypothesis 9: There was no difference in levels of bullying among female athletes according to race as a function of their age.

Alternative Hypothesis 9: There was a significant difference in levels of bullying among female athletes according to race as a function of their age.

Null Hypothesis 10: There was no correlation between bullying and connectedness among female athletes.

Alternative Hypothesis 10: There was a significant correlation between bullying and connectedness among female athletes.
CHAPTER IV

RESULTS

The purpose of this study was to examine the relationship between bullying others, perceived school connectedness, academic achievement, and selected demographics among female high school athletes. In specific, the relationships between the independent variables of age, race, and current achievement were examined in context of the dependent variables of bullying others and connectedness.

Data Collection Process

Permission

The data collection process began with the solicitation of permission from two different research review committees. A detailed description of the permission process is outlined below:

1. Permission to conduct this study was solicited from the Kent State Institutional Review Board (IRB).
2. Permission was granted from the Kent State University IRB in March of 2011.
3. Once the IRB at Kent State University granted approval to proceed with the study, permission to gain access to all female athletes enrolled at seven public high schools from an urban school district in Northeast Ohio was solicited from the representative of the Office of Research and Testing in that district. Permission was solicited from the school district Office of Research and Testing in April 2012.
4. In June 2012, permission was granted from the representative of the Office of Research and Testing to access female athletes in three out of the seven schools.

While the original proposal for this study included subjects from seven schools, the subject pool for the study was limited to female athletes enrolled at these three schools. Because of this change, the sample for this study included a purposive sample of all female athletes in the three designated schools.

A detailed description of the steps taken to secure permission from subjects in each of the three designated buildings outlined by the institutional review board and the school district Office of Research and Testing included the following steps:

1. Beginning in July 2012, permission to conduct the research was solicited from each building principal.

2. Once permission was obtained from the building principal to proceed, contact with the coaches for each team was made. The principal made initial contact with the coaches in two out of three schools.

3. In the third school, the principal and athletic director made contact with the coaches.

4. Following this initial contact with coaches, 10 coaches granted permission to proceed.

**Data Collection Organization**

After permission to gain access to the female athlete subjects was secured from the coaches, the following steps were taken to organize the data collection process:
1. A day/time was arranged to meet with the coach and team to explain the research.

2. Parent consent forms were distributed and explained to the athletes. Two coaches requested the parent consent forms to be sent them electronically.

3. Student athletes were asked to have parents sign and return the consent forms.

4. Coaches determined a timeline for collection of parent consent forms.

5. In a follow-up email sent to each coach, they were asked if there were any questions about securing the collection of parent consent forms.

6. Once the coaches collected parent consent forms, a day and time to collect data from student athlete subjects was arranged.

**The Day of Data Collection**

Through consultation with the coaches, a day/time for data collection was specified. In specific, these arrangements enabled data collection to be completed prior to or after one practice session. For eight out of the nine teams, data were collected prior to a practice session. One team completed data collection after a practice session. Following is a description of steps taken to collect data from the subjects on the day of data collection:

1. Signed parent consent forms were collected from the coach.

2. Coaches were asked to not discuss the instrument with the athletes. Coaches were also asked to remain on-site until all instruments were completed. All of the coaches complied with this request.
3. Athletes whose parents signed the consent form were given an envelope containing a participant consent form, direction sheet, and blank instrument.

4. Subjects who were not participating were given an envelope containing a word search puzzle to complete.

5. Subjects were asked to take the materials from the envelope.

6. The direction sheet was read to the athletes.

7. Subjects were reminded that they were free to withdraw at any time without penalty. In addition, subjects were reminded that there was no right or wrong answer to the questions on the instrument.

8. Subjects were asked to read and sign the participant consent form.

9. Subjects were instructed to separate themselves in a designated location (hallway, gym, field) and begin providing responses to the instrument.

10. Subjects were reminded not to share their answers verbally (out loud) or with anyone sitting near them.

11. When finished, subjects returned their completed instrument to the envelope.

12. Subjects returned the envelope containing the completed instrument and signed participant consent form.

13. Participant consent forms and completed instruments were separated into piles so that participant consent forms were in one pile, and completed instruments were in another pile.

14. On average, student athlete subjects took 15–20 minutes to complete the data collection process.
15. Data collection began in August 2012 and was concluded in October 2012.

16. Data were collected from a total of nine out of 10 teams.

The completed instruments were put in an envelope and were stored in a secured campus location until data were entered and analyzed. The signed consent forms (both parent and participant) remained in an envelope in the same campus location. No coaches, parents, athletic directors, teachers, or administrators in the school district ever had access to the completed instruments. Once the data were entered, the instruments remained stored in the same locked office in Nixson Hall on the campus of Kent State University.

Results

Description of the Subjects

A purposive sample of $N = 224$ female athlete subjects from three schools were asked to participate in this study. In total, 113 parent consent forms were collected. There were no subjects who withdrew from the study. In total, 113 subjects completed the instrument. Data from two subjects were eliminated from the analyses as it was confirmed that these two students were not enrolled in the school for which data were being collected. Because of this, the total number of subjects used in the sample was $N = 111$. Using a simple mathematical calculation to divide the number in the sample $n$, by the number in the population $N$, this study had a 50.4% response rate. According to Rea and Parker (2005), this sample size (111) was an adequate sample size given the total population size. Importantly, the sample size was large enough to infer that this sample is representative of the subject pool.
Table 7 contains a description of the data based on the total number of athletes ($N$), the number of athletes who completed an instrument ($n$), and the response rate ($n/N$) for each team that were part of the sample. An average score for the number of athletes in each school who completed an instrument ($n$) and the response rate ($n/N$) for each team are provided.

Table 7

*Total N, Returned N, and % Response Rate for Each Team Broken Down by School*

<table>
<thead>
<tr>
<th>Sport</th>
<th>School #1</th>
<th>School #2</th>
<th>School #3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N$</td>
<td>$n$</td>
<td>$n/N$ (%)</td>
</tr>
<tr>
<td>Soccer</td>
<td>30</td>
<td>11</td>
<td>36.7%</td>
</tr>
<tr>
<td>Volleyball</td>
<td>45</td>
<td>29</td>
<td>64.4%</td>
</tr>
<tr>
<td>Tennis</td>
<td>16</td>
<td>10</td>
<td>62.5%</td>
</tr>
<tr>
<td>Cross Country</td>
<td>15</td>
<td>10</td>
<td>66.7%</td>
</tr>
<tr>
<td>Mean</td>
<td><strong>15</strong></td>
<td><strong>57.6%</strong></td>
<td><strong>9.5</strong></td>
</tr>
</tbody>
</table>

Table 8 contains a description of the data based on school and sport characteristics of the entire sample. Given this information, approximately 55% ($n = 61$) of the subject pool were enrolled as students at school one, 34.2% ($n = 38$) of the sample were enrolled at school two, and 10.8% ($n = 12$) were enrolled at school three. In addition, data in Table 8 revealed the following distribution of sport participation among subjects: 46.8% ($n = 52$) volleyball players, 19.8% ($n = 22$) soccer players, 19.8% ($n = 22$) reported that they participated in cross country, and 13.5% ($n = 12$) were tennis players.
Table 8

Demographic Data for School and Sport Characteristics

<table>
<thead>
<tr>
<th>School</th>
<th>n</th>
<th>% of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>61</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>38</td>
<td>34.2</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>10.8</td>
</tr>
<tr>
<td>Total</td>
<td>111</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sport</th>
<th>n</th>
<th>% of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soccer</td>
<td>22</td>
<td>19.8</td>
</tr>
<tr>
<td>Volleyball</td>
<td>52</td>
<td>46.8</td>
</tr>
<tr>
<td>Tennis</td>
<td>12</td>
<td>13.5</td>
</tr>
<tr>
<td>Cross Country</td>
<td>22</td>
<td>19.8</td>
</tr>
<tr>
<td>Total</td>
<td>111</td>
<td>100</td>
</tr>
</tbody>
</table>

Demographic Characteristics (Age/Race)

Consistent with the study parameters described in Chapter 3, all subjects in this study were female. Among these female subjects, 17.1% \((n = 19)\) were 14 years old, 27.9% \((n = 31)\) were 15 years old, 34.2% \((n = 38)\) were 16 years old, 17.1% \((n = 19)\) were 17 years old, and 2.7% \((n = 3)\) were 18 years old. One subject did not report her age. Table 9 contains the demographic characteristic of age across the sample.

A majority of subjects 70.3% \((n = 77)\) reported that they were White, 18.9% \((n = 21)\) of subjects reported that they were Black or African American, 7.2% \((n = 8)\) of subjects reported that they were more than one race, and 0.9% \((n = 1)\) reported they were
Asian, 0.9% \((n = 1)\) reported that they were Native Hawaiian or Other Pacific Islander, and 0.9% \((n = 1)\) reported that they were Hispanic. One subject (0.9%) did not report her race. Table 9 contains the demographic characteristic of race across the sample.

Table 9

*Demographic Characteristics of Instrument Respondents by Age, Race, Current Achievement, and Prior Achievement \((n = 111)\)*

<table>
<thead>
<tr>
<th>Age</th>
<th>(n)</th>
<th>% of the sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 years old</td>
<td>19</td>
<td>17.3%</td>
</tr>
<tr>
<td>15 years old</td>
<td>31</td>
<td>28.2%</td>
</tr>
<tr>
<td>16 years old</td>
<td>38</td>
<td>34.5%</td>
</tr>
<tr>
<td>17 years old</td>
<td>19</td>
<td>17.3%</td>
</tr>
<tr>
<td>18 years old</td>
<td>3</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>(n)</th>
<th>% of the sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>1</td>
<td>.9%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>21</td>
<td>19.1%</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>1</td>
<td>.9%</td>
</tr>
<tr>
<td>White</td>
<td>78</td>
<td>70.9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>.9%</td>
</tr>
<tr>
<td>More than one race</td>
<td>8</td>
<td>7.3%</td>
</tr>
</tbody>
</table>

**Current Achievement**

<table>
<thead>
<tr>
<th>Mostly A’s</th>
<th>(n)</th>
<th>% of the sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>A’s and B’s</td>
<td>51</td>
<td>46.4%</td>
</tr>
<tr>
<td>Mostly B’s</td>
<td>6</td>
<td>5.5%</td>
</tr>
<tr>
<td>B’s and C’s</td>
<td>3</td>
<td>2.7%</td>
</tr>
<tr>
<td>Mostly C’s</td>
<td>1</td>
<td>.9%</td>
</tr>
</tbody>
</table>

**Academic Achievement (Current Achievement)**

Data were collected on student current achievement. Academic standing was measured by self-reported letter grades received during the current and prior grading period. Forty four percent \((n = 49)\) of subjects reported receiving “Mostly A’s” during the
current grading period. In addition, 45.9% \((n = 51)\) reported receiving “A’s and B’s.” It was notable that 90% of the sample reported receiving “Mostly A’s” and “A’s and B’s” during the current grading period. Just over five percent \((n = 6)\) of students reported receiving “Mostly B’s,” and 2.7% \((n = 3)\) reported receiving “B’s and C’s,” and one subject reported receiving “Mostly C’s” during the current grading period. One subject did not respond to this item concerning current academic achievement. Table 9 contains the frequency of self-reported current achievement in school.

**Bullying Others**

Bullying others was assessed using an 18-item scale. Possible scores ranged from 18 \((never bullied others)\), to 90 \((bully others every way and every day)\). Data revealed that 29.3\% \((n = 32)\) of subjects received scores of 18 \((n = 109)\), which indicates no involvement in bullying others. In addition, 10\% \((n = 11)\) received a score of 19, 12.8\% \((n = 14)\) received a score of 20, 11.9\% \((n = 13)\) of subjects received a score of 21, 8\% \((n = 9)\) received a score of 22, and 8\% \((n = 9)\) received a score of 23, therefore, 79.2\% \((n = 88)\) of the sample reported scores ranging from 18.00–23.00. The range of scores for this variable was 18.00 (minimum) to 42.00 (maximum). In addition, the total mean score for bullying others as measured in this scale was 21.59 with a standard deviation of 4.64.

**Perceived School Connectedness**

The construct of school connectedness was assessed using a 12-item scale. Possible scores ranged from 12.00 \((least connected)\) to 48.00 \((most connected)\). Data revealed a range of scores from 18.00 (minimum) to 47.00 (maximum). In addition, the mean score for this variable was 35.97 with a standard deviation of 5.46.
Data Analysis Protocol

A one-way analysis of variance (ANOVA) was used to test hypotheses one through six. This analysis protocol was used to measure the amount of the total variability of the dependent variable that could be attributed to the differences among the categories of the independent variable (Rea & Parker, 2005). The dependent variable used for hypotheses one through three was bullying others. This variable was measured on a scale ranging from 18 to 90. A score of 18 represented the lowest level of self-reported involvement in bullying others and a score of 90 represented the highest level of self-reported involvement in bullying others. Another series of one-way ANOVAs were conducted to test hypotheses four through six. In these analyses, the variable of connectedness was the dependent variable. Connectedness was measured using a score ranging from 12 to 48. A score of 12 represented the lowest self-reported level of connectedness and a score of 48 represented the highest self-reported level of connectedness.

Hypotheses one through six used the variables of age, race, and current achievement as factors, or independent variables. Hypotheses seven through nine were tested using a two-way analysis of variance using age and race as independent variables, and bullying others as the dependent variable. This analysis was conducted to assess any main and interaction effect of these two variables with the dependent variable. Last, hypothesis 10 evaluated the relationship between the variables of bullying others and connectedness. Correlation analysis was used to test for this relationship. All analyses used an alpha level of $p < .05$ to test for significance.
All data were entered into IBM SPSS Statistics Version 20 software. Upon further examination of the data, one subject did not respond to the questions concerning bullying others. These data were not included in the final analysis.

Prior to performing an analysis of variance, the data were examined for statistical assumptions. In this regard, the bullying others variable (items #31–48) was found to violate the assumption of normality ($p = .000$). In order to adjust for this, the bullying variable was transformed using the Log10 arithmetic function. To ensure consistency when performing the various analyses, the connectedness variable (items #1–12) was transformed using a Log10 arithmetic function. The purpose of using a Log10 transformation was to force the data into a normal curve, thus satisfying the assumption of normality prior to running the analyses.

**Results for Hypotheses One Through Three**

Hypotheses one through three were analyzed independently using a one-way analysis of variance test. The variables of age, race, and current achievement were used as independent variables and bullying others was used as the dependent variable. As indicated in Table 10, the 95% upper and lower bounds were included as descriptive statistics. This information demonstrated that if a sample of 111 high school female athletes were to be drawn, the calculated means for each of the variables listed would fall within the 95% confidence interval. As indicated in Table 10, the mean scores on the dependent variable bullying fall between the upper and lower bounds for each independent variable of age, race, and current achievement. Consequently, at a glance, the null hypotheses can be accepted as true for hypotheses one through three. The means, standard
deviations, upper bounds and lower bounds for these three independent variables are shown in Table 10.

Table 10

Means, Standard Deviations, and 95% Confidence Intervals of Self-Reported Bullying Behavior Scores Between Age, Race, and Current Achievement

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 years old</td>
<td>1.35</td>
<td>.110</td>
<td>1.30</td>
<td>1.40</td>
</tr>
<tr>
<td>15 years old</td>
<td>1.32</td>
<td>.056</td>
<td>1.30</td>
<td>1.34</td>
</tr>
<tr>
<td>16 years old</td>
<td>1.33</td>
<td>.091</td>
<td>1.30</td>
<td>1.36</td>
</tr>
<tr>
<td>17 years old</td>
<td>1.31</td>
<td>.046</td>
<td>1.29</td>
<td>1.33</td>
</tr>
<tr>
<td>18 years old</td>
<td>1.27</td>
<td>.026</td>
<td>1.20</td>
<td>1.33</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>1.26</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Black or African American</td>
<td>1.36</td>
<td>.112</td>
<td>1.31</td>
<td>1.41</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>1.30</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>White</td>
<td>1.32</td>
<td>.069</td>
<td>1.31</td>
<td>1.34</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.26</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>More than one race</td>
<td>1.27</td>
<td>.017</td>
<td>1.26</td>
<td>1.28</td>
</tr>
<tr>
<td><strong>Current Achievement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mostly A’s</td>
<td>1.32</td>
<td>.067</td>
<td>1.26</td>
<td>1.28</td>
</tr>
<tr>
<td>A’s and B’s</td>
<td>1.33</td>
<td>.083</td>
<td>1.31</td>
<td>1.35</td>
</tr>
<tr>
<td>Mostly B’s</td>
<td>1.31</td>
<td>.078</td>
<td>1.23</td>
<td>1.39</td>
</tr>
<tr>
<td>B’s and C’s</td>
<td>1.49</td>
<td>.081</td>
<td>1.29</td>
<td>1.69</td>
</tr>
<tr>
<td>Mostly C’s</td>
<td>1.28</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Source: p < .05

**Hypothesis One**

Null Hypothesis: There was no statistically significant difference in levels of bullying among female athletes according to age.
Alternate Hypothesis: There was a statistically significant difference in levels of bullying among female athletes according to age.

An ANOVA was conducted to analyze the relationship between age and bullying others. The independent variable of age included five levels: 14 years old, 15 years old, 16 years old, 17 years old, and 18 years old. The ANOVA test revealed that there was no statistically significant difference among these subjects $F(4,104) = 1.30, p = .276$. Based on these results, null hypothesis one was accepted. While there were observed differences for the means of the dependent variable across age categories, these findings confirm that age did not exert a statistically significant influence over bullying others. The results for the overall F test are provided in Table 11.

Table 11

*Results of Overall F Test for Bullying Others According to Age*

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.032</td>
<td>4</td>
<td>.008</td>
<td>1.297</td>
<td>.276</td>
</tr>
<tr>
<td>Within Groups</td>
<td>.649</td>
<td>104</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.681</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis Two**

Null Hypothesis: There was no statistically significant difference in levels of bullying among female athletes according to race.
Alternate Hypothesis: There was a statistically significant difference in levels of bullying among female athletes according to race.

An ANOVA was performed to analyze the differences in bullying others according to race, with race being evaluated on seven levels: Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, Hispanic, and More than one race. The ANOVA was not statistically significant $F(5,103) = 2.06$, $p = .076$. Based on these results, null hypothesis two was accepted. The results for the overall F test are presented in Table 12.

Table 12

Results of Overall F Test for Bullying Others According to Race

<table>
<thead>
<tr>
<th>Bully/Total</th>
<th>Adj Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.062</td>
<td>5</td>
<td>.012</td>
<td>2.060</td>
<td>.076</td>
</tr>
<tr>
<td>Within Groups</td>
<td>.619</td>
<td>103</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.681</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Because three of the seven race categories had scores of only one case per group, these data points were temporarily eliminated from the analysis. The ANOVA was re-run for the remaining race categories of Black or African American, White, and students who reported that they were more than one race. The results of this ANOVA were statistically significant $F(2,103) = 4.24$, $p = .017$. Given these findings, null hypothesis two was rejected, and the alternate hypothesis was accepted. Because there was a statistically
significant difference revealed among levels of bullying according to race, the alternate hypothesis was accepted. Follow-up tests were conducted to identify where significant differences occurred for levels of the factor race. Based on these results, there was a statistically significant difference in levels of bullying among students who reported being Black or African American and students who reported being of more than one race ($p = .015$). The results for the statistically significant F test are presented in Table 13, and the results for the follow-up test are presented in Table 14.

Table 13

*Results of Overall F Test for Bullying Others According to Race After Adjusting*

<table>
<thead>
<tr>
<th>BullyTotalAdj</th>
<th>ANOVA</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig $p &lt; .05$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.051</td>
<td>2</td>
<td>.025</td>
<td>4.238</td>
<td>.017</td>
<td></td>
</tr>
<tr>
<td>Within Groups</td>
<td>.619</td>
<td>103</td>
<td>.006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.670</td>
<td>105</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 14

*Post-Hoc Mean Differences Between Race Categories*

Dependent Variable: BullyTotalAdj  
Tukey HSD

<table>
<thead>
<tr>
<th>(I) What is your race?</th>
<th>(J) What is your race?</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black or African American</td>
<td>White</td>
<td>.03637</td>
<td>.01909</td>
<td>.142</td>
<td>-.0090</td>
<td>.0818</td>
<td></td>
</tr>
<tr>
<td>Black or African American</td>
<td>More than one race</td>
<td>.09133*</td>
<td>.03221</td>
<td>.015</td>
<td>.0147</td>
<td>.1679</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>Black or African American</td>
<td>-.03637</td>
<td>.01909</td>
<td>.142</td>
<td>-.0818</td>
<td>.0090</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>More than one race</td>
<td>.05496</td>
<td>.02880</td>
<td>.142</td>
<td>-.0135</td>
<td>.1234</td>
<td></td>
</tr>
<tr>
<td>More than one race</td>
<td>Black or African American</td>
<td>-.09133*</td>
<td>.03221</td>
<td>.015</td>
<td>-.1679</td>
<td>-.0147</td>
<td></td>
</tr>
<tr>
<td>More than one race</td>
<td>White</td>
<td>-.05496</td>
<td>.02880</td>
<td>.142</td>
<td>-.1234</td>
<td>.0135</td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis Three**

Null Hypothesis: There was no statistically significant difference in levels of bullying among female athletes according to current achievement.

Alternate Hypothesis: There was a statistically significant difference in levels of bullying among female athletes according to current achievement.

An ANOVA was performed to analyze the differences in bullying others according to self-reported current achievement, with current achievement being evaluated on five levels: Mostly A’s, A’s and B’s, Mostly B’s, B’s and C’s, and Mostly C’s. The ANOVA was statistically significant \( F(4,104) = 3.77, p = .007 \). Because the ANOVA was statistically significant, null hypothesis three was rejected and the alternate hypothesis was accepted. Based on these findings, it can be concluded that there was a statistically significant difference in bullying others according to levels of current achievement.
Because there was only one case for the value corresponding to “Mostly C’s,” this data point was eliminated from the analysis so that follow-up tests could be conducted. After eliminating this data point, the ANOVA was re-run. The ANOVA after eliminating this case was also statistically significant $F(3,104) = 4.90, p = .003$. Follow-up tests were conducted to determine the difference between levels of the factor of current achievement. Significant differences were found across multiple levels of the factor, suggesting that self-reported bullying behavior differed between students who reported getting B’s and C’s and students who reported getting mostly B’s, among students who reported getting B’s and C’s and students who reported getting A’s and B’s, and among students who reported getting B’s and C’s and Mostly A’s. In other words, the follow-up test revealed statistically significant differences across all levels of the factor. Further, significant differences were evaluated using the $p < .05$ level of significance. The results of the significant F test after eliminating the data point of “Mostly C’s” are provided in Table 15. The results of the follow-up test are provided in Table 16.

**Results for Hypotheses Four Through Six**

Hypotheses four through six were analyzed using a one-way analysis of variance. The variables of age, race, and current achievement were used as independent variables and connectedness was used as the dependent variable. As indicated in Table 16, the 95% upper and lower bounds are included in the analysis. This information was presented to demonstrate that if a sample of 111 high school female athletes were to be drawn at random, the calculated means on the connectedness variable for each of the independent variables would fall within the upper and lower bounds. In this study, the mean scores for
Table 15

Results of Overall F Test for Bullying Others According to Current Achievement

<table>
<thead>
<tr>
<th>BullyTotalAdj</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig p &lt; .05.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.084</td>
<td>3</td>
<td>.028</td>
<td>4.903</td>
<td>.003</td>
</tr>
<tr>
<td>Within Groups</td>
<td>.595</td>
<td>104</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.679</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 16

Post-Hoc Mean Differences Between Levels of Current Achievement

<table>
<thead>
<tr>
<th>Multiple Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable: BullyTotalAdj</td>
</tr>
<tr>
<td>Tukey HSD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(I) In my current grading period, I expect to receive_</th>
<th>(J) In my current grading period, I expect to receive_</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mostly B’s</td>
<td>Mostly B’s</td>
<td>.17397*</td>
<td>.05347</td>
<td>.008</td>
<td>.0344 - .3136</td>
</tr>
<tr>
<td>B’s and C’s</td>
<td>A’s and B’s</td>
<td>.15693*</td>
<td>.04495</td>
<td>.004</td>
<td>.0396 - .2743</td>
</tr>
<tr>
<td>Mostly A’s</td>
<td>Mostly A’s</td>
<td>.17075*</td>
<td>.04497</td>
<td>.001</td>
<td>.0533 - .2882</td>
</tr>
</tbody>
</table>

*The mean difference is significant at the 0.05 level.

connectedness based on the independent variables of age, race, and current achievement all fell between the upper and lower bounds. Consequently, the null hypotheses can be accepted as true for hypotheses four through six. The means, standard deviations, upper
bounds and lower bounds for connectedness scores on the three independent variables are provided in Table 17.

Table 17

*Means, Standard Deviations, and 95% Confidence Intervals of Self-Reported Connectedness Scores Between Age, Race, and Current Achievement*

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean</th>
<th>SD</th>
<th>Upper Bound</th>
<th>Lower Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 years old</td>
<td>1.57</td>
<td>.066</td>
<td>1.53</td>
<td>1.60</td>
</tr>
<tr>
<td>15 years old</td>
<td>1.55</td>
<td>.101</td>
<td>1.51</td>
<td>1.58</td>
</tr>
<tr>
<td>16 years old</td>
<td>1.54</td>
<td>.053</td>
<td>1.53</td>
<td>1.56</td>
</tr>
<tr>
<td>17 years old</td>
<td>1.55</td>
<td>.063</td>
<td>1.52</td>
<td>1.58</td>
</tr>
<tr>
<td>18 years old</td>
<td>1.58</td>
<td>.034</td>
<td>1.49</td>
<td>1.66</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Mean</th>
<th>SD</th>
<th>Upper Bound</th>
<th>Lower Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>1.61</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Black or African American</td>
<td>1.54</td>
<td>.068</td>
<td>1.51</td>
<td>1.57</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>1.52</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>White</td>
<td>1.55</td>
<td>.075</td>
<td>1.53</td>
<td>1.57</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.56</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>More than one race</td>
<td>1.59</td>
<td>.049</td>
<td>1.55</td>
<td>1.63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Achievement</th>
<th>Mean</th>
<th>SD</th>
<th>Upper Bound</th>
<th>Lower Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mostly A’s</td>
<td>1.56</td>
<td>.056</td>
<td>1.54</td>
<td>1.58</td>
</tr>
<tr>
<td>A’s and B’s</td>
<td>1.55</td>
<td>.077</td>
<td>1.53</td>
<td>1.57</td>
</tr>
<tr>
<td>Mostly B’s</td>
<td>1.51</td>
<td>.133</td>
<td>1.37</td>
<td>1.65</td>
</tr>
<tr>
<td>B’s and C’s</td>
<td>1.50</td>
<td>.021</td>
<td>1.44</td>
<td>1.55</td>
</tr>
<tr>
<td>Mostly C’s</td>
<td>1.63</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Hypothesis Four**

Null Hypothesis: There was no statistically significant difference in levels of connectedness among female athletes according to age.

Alternate Hypothesis: There was a statistically significant difference in levels of connectedness among female athletes according to age.
An ANOVA was conducted to analyze the relationship between age and connectedness. The independent variable of age included five levels: 14 years old, 15 years old, 16 years old, 17 years old, and 18 years old. The ANOVA was not statistically significant: $F(4,105) = .451, p = .771$. Because this test was not statistically significant, null hypothesis four was accepted. These findings confirmed that among study subjects, the variable of connectedness was not influenced by age. The results of the overall F test are provided in Table 18.

Table 18

*Results of Overall F Test for Perceived School Connectedness According to Age*

<table>
<thead>
<tr>
<th>ConnTotalAdj</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.010</td>
<td>4</td>
<td>.002</td>
<td>.451</td>
<td>.771</td>
</tr>
<tr>
<td>Within Groups</td>
<td>.561</td>
<td>105</td>
<td>.005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.571</td>
<td>109</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis Five**

Null Hypothesis: There was no statistically significant difference in levels of connectedness among female athletes according to race.

Alternate Hypothesis: There was a statistically significant difference in levels of connectedness among female athletes according to race.

According to these data, there were three race categories for which there was only one subject. Similar to the way in which the ANOVA was performed with bullying as the
dependent variable, these data points were eliminated from the analysis. An ANOVA was conducted to analyze the relationship between race and the dependent variable connectedness using three out of the six levels of the independent variable race: Black or African American, White, and More than one race. The ANOVA was not significant F(2,104) = 1.70, p = .188. Based on this result, null hypothesis five was accepted. These findings confirm that among study subjects, scores on the connectedness variable were not influenced by race. The results of the F test are provided in Table 19.

Table 19

Results of Overall F Test for Perceived School Connectedness According to Race

<table>
<thead>
<tr>
<th>Conn Total Adj</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.018</td>
<td>2</td>
<td>.009</td>
<td>1.697</td>
<td>.188</td>
</tr>
<tr>
<td>Within Groups</td>
<td>.548</td>
<td>104</td>
<td>.005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.566</td>
<td>106</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis Six

Null Hypothesis: There was no statistically significant difference in levels of connectedness among female athletes according to current achievement.

Alternate Hypothesis: There was a statistically significant difference in levels of connectedness among female athletes according to current achievement.

Similar to the way in which current achievement was analyzed with the dependent variable of bullying others, the case of “Mostly C’s” was eliminated prior to performing
the ANOVA analyzing current achievement and connectedness as the dependent variable. The ANOVA was not statistically significant: $F(3,105) = 1.687, p = .174$. Based on this result, null hypothesis six was accepted. These findings confirm that among study subjects, the connectedness variable was not significantly influenced by current achievement. The results of the overall F test are presented in Table 20.

Table 20

*Results of Overall F Test for Perceived School Connectedness According to Current Achievement*

<table>
<thead>
<tr>
<th>ConnTotalAdj</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.026</td>
<td>3</td>
<td>.009</td>
<td>1.687</td>
<td>.174</td>
</tr>
<tr>
<td>Within Groups</td>
<td>.538</td>
<td>105</td>
<td>.005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.564</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Results for Hypotheses Seven Through Nine*

Hypotheses seven through nine were analyzed using a two-way analysis of variance with age and race being used as independent variables and bullying others as the dependent variable. Further, age was a factor divided into 4 levels: 14 years old, 15 years old, 16 years old, and 17 years old. The data point of 18 years old was eliminated from the two-way analysis of variance because it contained only three subjects and therefore could not be used in follow-up tests. Because the categories of Asian, Native Hawaiian or Other Pacific Islander, and Hispanic presented with only one subject, they too were eliminated from the two-way ANOVA because follow-up tests could not be performed.
The resulting 4 x 3, two-way ANOVA was conducted. The results from this analysis are provided in Table 21 and discussed in hypotheses seven through nine.

Table 21

*Univariate Analysis of the Difference in Self-Reported Bullying Behaviors by Age and Race*

<table>
<thead>
<tr>
<th>Variables</th>
<th>df</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>10</td>
<td>2.21</td>
<td>.024</td>
</tr>
<tr>
<td>Age</td>
<td>3</td>
<td>1.75</td>
<td>.163</td>
</tr>
<tr>
<td>Race</td>
<td>2</td>
<td>2.48</td>
<td>.090</td>
</tr>
<tr>
<td>Age*Race</td>
<td>5</td>
<td>1.67</td>
<td>.149</td>
</tr>
</tbody>
</table>

$p < .05$

**Hypothesis Seven**

Null Hypothesis: There is no statistically significant difference in levels of bullying among female athletes according to age as age is averaged across race.

Alternate Hypothesis: There is a statistically significant difference in levels of bullying among female athletes according to age as age is averaged across race.

A 4 x 3 way ANOVA was conducted to analyze the effects of age and race on self-reported bullying behavior among female athletes. The mean and standard deviation for bullying others as a function of age and race are presented in Table 14. The results of the two-way ANOVA revealed a non-significant main effect for age, $F(3,92) = 1.75, p = .163$. Based on this result, null hypothesis seven was accepted. These findings confirm
that among subjects, bullying others was not statistically significantly influenced by age as age was averaged across race. Table 15 presents the results of the two-way ANOVA used to test hypotheses seven.

**Hypothesis Eight**

Null Hypothesis: There is no statistically significant difference in levels of bullying among female athletes according to race as race is averaged across age.

Alternate Hypothesis: There is a statistically significant difference in levels of bullying among female athletes according to race as race is averaged across age.

A 4 x 3 way ANOVA was conducted to analyze the effects of age and race on self-reported bullying behavior among female athletes. The mean and standard deviation for bullying others as a function of age and race are presented in Table 14. Similar to the main effect for age, the result of the two-way ANOVA revealed a non-significant main effect for race, $F(2,92) = 2.48, p = .090$. Based on this result, null hypothesis eight was accepted. These findings confirm that among subjects, bullying others was not statistically significantly influenced by race as race was averaged across age. Table 15 presents the results of the two-way ANOVA used to test hypothesis eight.

**Hypothesis Nine**

Null Hypothesis: There is no statistically significant difference in levels of bullying among female athletes according to race as a function of their age.

Alternate Hypothesis: There is a statistically significant difference in levels of bullying among female athletes according to race as a function of their age.
A 4 x 3 way ANOVA was conducted to analyze the effects of age and race on self-reported bullying behavior among female athletes. The mean and standard deviation for bullying others as a function of age and race are presented in Table 15. Given the result of the two-way ANOVA, no statistically significant interaction effect was observed, F (5,92) = 1.67, p = .149. Because neither a main effect nor an interaction effect was significant, follow-up tests were not necessary. Based on this result, null hypothesis nine was accepted. These findings confirm that among study subjects, bullying others was not significantly influenced as a function of age and race. Table 22 presents the results of the two-way ANOVA used to test hypothesis nine.

**Hypothesis Ten**

Null Hypothesis: There is no statistically significant correlation between bullying and connectedness among female athletes.

Alternate Hypothesis: There is a statistically significant correlation between bullying and connectedness among female athletes.

Hypothesis 10 was constructed to assess the degree to which the two variables of connectedness and bullying were linearly related in the sample. A Pearson product-moment correlation coefficient was obtained for these two variables. The resulting correlation matrix is shown in Table 23.

According to these results, the correlation between connectedness and bullying others was statistically significant, r (109) = -.205, p < .05. This negative coefficient confirmed that the statistically significant relationship between these two variables was an inverse one. In specific, as scores on the connectedness scale increased, scores on the
Table 22

*Univariate Analysis of the Difference in Self-Reported Bullying Behaviors as a Function of Age and Race*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>.128a</td>
<td>10</td>
<td>.013</td>
<td>2.211</td>
<td>.024</td>
</tr>
<tr>
<td>Intercept</td>
<td>62.646</td>
<td>1</td>
<td>62.646</td>
<td>10855.069</td>
<td>.000</td>
</tr>
<tr>
<td>Age</td>
<td>.030</td>
<td>3</td>
<td>.010</td>
<td>1.747</td>
<td>.163</td>
</tr>
<tr>
<td>Race</td>
<td>.029</td>
<td>2</td>
<td>.014</td>
<td>2.477</td>
<td>.090</td>
</tr>
<tr>
<td>Age * Race</td>
<td>.048</td>
<td>5</td>
<td>.010</td>
<td>1.672</td>
<td>.149</td>
</tr>
<tr>
<td>Error</td>
<td>.531</td>
<td>92</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>182.713</td>
<td>103</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>.659</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .194 (Adjusted R Squared = .106)

Table 23

*Correlation Between Self-Reported Connectedness and Self-Reported Bullying Behaviors*

<table>
<thead>
<tr>
<th>Connectedness</th>
<th>Bullying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectedness</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Sig</td>
<td>111</td>
</tr>
<tr>
<td>N</td>
<td>109</td>
</tr>
</tbody>
</table>

*p < .05*
bullying scale decreased, and as scores on the connectedness scale decreased, scores on the bullying scale increased. Based on the sample, these results confirmed that the two dependent variables in the study were linearly related. Null hypothesis 10 was rejected, and the alternate hypothesis was accepted.

Summary

The data for this study were analyzed using univariate ANOVA (one-way and two-way) and correlation analyses. According to the tests used for hypotheses one through 10, the results for each hypothesis can be summarized as follows. An asterisk denotes hypotheses where statistical significance was obtained.

Hypothesis One

Null Hypothesis: There was no statistically significant difference in levels of bullying among female athletes according to age.

No statistically significant relationship between age and self-reported bullying behaviors was revealed among study subjects. The null hypothesis was accepted.

*Hypothesis Two

Null Hypothesis: There was no statistically significant difference in levels of bullying among female athletes according to race.

A statistically significant relationship between race and self-reported bullying behaviors was revealed among study subjects. Null hypothesis two was rejected and the alternate hypothesis was accepted.
*Hypothesis Three*

Null Hypothesis: There was no statistically significant difference in levels of bullying among female athletes according to current achievement.

A statistically significant relationship between current achievement and self-reported bullying behaviors was revealed among study subjects. Null hypothesis three was rejected and the alternate hypothesis was accepted.

**Hypothesis Four**

Null Hypothesis: There was no statistically significant difference in levels of connectedness among female athletes according to age.

No statistically significant relationship between age and connectedness was revealed among study subjects. Null hypothesis four was accepted.

**Hypothesis Five**

Null Hypothesis: There was no statistically significant difference in levels of connectedness among female athletes according to race.

No statistically significant relationship between race and connectedness was revealed among study subjects. Null hypothesis five was accepted.

**Hypothesis Six**

Null Hypothesis: There was no statistically significant difference in levels of connectedness among female athletes according to current achievement.

No statistically significant relationship between current achievement and connectedness was revealed among study subjects. Null hypothesis six was accepted.
Hypothesis Seven

Null Hypothesis: There was no statistically significant difference in levels of bullying among female athletes according to age as age is averaged across race.

No statistically significant main effect of bullying according to age as age is averaged across race was revealed among study subjects. Null hypothesis seven was accepted.

Hypothesis Eight

Null Hypothesis: There was no statistically significant difference in levels of bullying among female athletes according to race as race is averaged across age.

No statistically significant main effect of bullying according to race as race was averaged across age was revealed among study subjects. Null hypothesis eight was accepted.

Hypothesis Nine

Null Hypothesis: There was no statistically significant difference in levels of bullying among female athletes according to race as a function of their age.

No statistically significant interaction effect of bullying others according to race as race was a function of age was revealed among study subjects. Null hypothesis nine was accepted.

*Hypothesis Ten

Null Hypothesis: There was no statistically significant correlation between bullying and connectedness among female athletes.
A statistically significant correlation between bullying others and connectedness was revealed among study subjects. Null hypothesis ten was rejected, and the alternate hypothesis was accepted.
CHAPTER V
DISCUSSION

The purpose of this study was to examine the relationship between bullying others, perceived school connectedness, academic achievement, and selected demographics among female high school athletes.

A robust body of research has documented that bullying constitutes a complex social phenomenon. As such, research about bullying has confirmed that this behavior interferes in the social, emotional, and academic development bullies and their victims (Espelage & Swearer, 2003). In addition, bullying has been demonstrated to exert an influence over the relationships between students (Demanet & Van Houtte, 2011). In this context, research has documented a significant negative relationship between involvement in bullying (as a bully or victim) and perceived school connectedness (O’Brennan & Furlong, 2010; You et al., 2008). In light of this discovery, bullying others has been examined in context of perceived school connectedness as it occurs among female high school athletes.

Discussion of the Sample Characteristics

Analysis Protocol

Subjects were asked to provide anonymous responses to an instrument containing 54 items. These items measured student athlete responses about two dependent variables and about selected demographic characteristics. In specific, 18 items were constructed to collect data about the construct of bullying others. Twelve items were constructed to enable subjects to provide feedback about school connectedness. Finally, four items asked
respondents to report their age, race, and current academic achievement. In the data analysis, the variables of bullying others and school connectedness were analyzed as dependent variables. Further, the demographic variables of age, race, and current achievement were analyzed as independent variables.

A total of 10 hypotheses were constructed to guide the analysis of the relationships between the independent and dependent variables in this study. Nine of the 10 hypotheses were analyzed using the one-way and two-way Analysis of Variance (ANOVA) techniques. One hypothesis was constructed to guide the analysis of the two dependent measures in this study. In this context, correlation analysis was used to determine the degree of relationship between bullying others and school connectedness.

A total of 111 female athlete subjects participated in this study. Among the subjects, a majority of respondents were 15 years old or 16 years old (n = 31 and n = 38, respectively). In addition, subjects that were 14 years old and 17 years old were represented with the same frequency (n = 19). Finally, only three subjects in the sample were 18 years old and one subject did not report her age.

A majority of subjects (n = 77) reported they were White, which comprised 70.3% of the sample. The number of subjects who reported that they were Black or African American was n = 21 or 18.9% of the sample, and subjects who reported that they were of more than one race (n = 8) comprised the remaining 7.2% of the study sample.

Measures of academic achievement, as indicated by self-reported letter grades during the current grading period, revealed that 44% of the sample reported receiving Mostly A’s. In addition, 45.9% of the sample reported receiving A’s and B’s. Six
subjects (5.5%) reported that they received Mostly B’s, and three subjects (2.7%) reported that they received Mostly B’s and C’s. Only one subject reported receiving Mostly C’s during the current grading period.

Discussion of the Dependent Variables of the Study

Rationale for Bullying Others

A recent body of research on bullying others among school-aged children has emerged that highlighted the role of individual and contextual predictors of bullying (Cook et al., 2010). In this context, student involvement in bullying can be predicted by a combination of individual and environmental factors. Two constructs identified by Cook et al. as peer status and peer influence undergirded the focus of this research. According to Cook et al., peer status is defined as “the positive or negative impact of peers on the adjustment of children, such as the deviant peer group affiliations, pro-social group activities, and reinforcement for (in) appropriate behaviors” (p. 71). Further, peer influence was defined as “the quality of the relationships children and adolescents have with their peers, including rejection, isolation, popularity, and likeability” (p. 71).

The decision to study student athletes instead of a more general population of students was supported by the identification of these peer-based contextual factors influential to bullying others. As a result, it was hypothesized that peer group affiliation was an influential variable to bullying others among student athletes. As it relates to peer influence, it was hypothesized that student athletes would represent a popular and likeable social group, thus retaining a positively oriented peer influence in the school. Based on this literature concerning peer-based contextual factors, bullying others was examined
among members of a social group. Further, there is little evidence confirming or
describing the behavior of bullying others among female athletes in the literature.

**Rationale for School Connectedness**

Another contextual factor that has been shown to be influential to bullying others
was *school climate*. Defined by Cook et al. (2010) as “the degree of respect and fair
treatment of students by teachers and school administrators as well as the child’s sense of
belonging to school” (p. 71), this statement accurately reflects school climate as a measure
of student perception. Similar to bullying others, insights about school connectedness
continue to grow in the body of literature. In specific, school connectedness has been used
as a theoretical underpinning to help explain the role of contextual protective factors and
health risk behavior among youth and adolescents. The literature about contextual factors
such as *school climate* was used to support the analysis of school connectedness and
bullying others.

**Interpretation and Recommendations for Further Research**

**Age and Bullying Others**

In context of hypothesis one, the data from the most recent iteration of the School
Survey on Crime and Safety (SSOC) revealed that during the 2009–2010 school year,
approximately 20–28% of 9–12 grade students reported being victimized by bullying
(Robers et al., 2012). Importantly, victimization has been shown to be highest among
students who were in 9th grade and lowest among their counterparts who were in 12th
grade. Although the work of Nansel et al. (2001) has confirmed that students in middle
school experience bullying more than students enrolled in secondary schools, up to 30%
of secondary school students have reported involvement in some form of bullying (McKenna et al., 2011; Nansel et al., 2001). Given the prevalence of this behavior, the study of age as an influential variable over bullying others is supported by the literature.

In addition to these data presented by the SSOCS, the results of the most recent YRBSS (2011) were released by the CDC’s Division of Adolescent and School Health (DASH) in June 2012. In this report, data revealed that the prevalence of having been bullied on school property was comparable to that which was reported in the literature. In specific, having been bullied on school property was higher among 9th grade (27.1%) and 10th grade (24.6%) females than 11th (17.5%) and 12th grade (17.2%) female students (USDHHS [MMWR], 2012).

In context of hypothesis one, the results from this study do not support the contention that younger students are involved in bullying more often than their older counterparts. In fact, these results suggested that age did not exert a statistically significant influence over bullying others among female athlete subjects. When age was examined as an independent variable with bullying others as a dependent variable, the analyses revealed no statistically significant difference across age groups. Based on these findings, it is possible that participation in interscholastic athletics was a variable that exerted influence to this relationship between age and bullying others. Because of a lack of literature dedicated to the examination of female student athletes and bullying others, future research should continue to explore this relationship among this particular subgroup of the school-aged population.
Race and Bullying Others

In context of hypothesis two, the results of this study revealed that the prevalence of having been bullied on school property was similar to the evidence reported in the literature. In specific, having been bullied on school property was higher among White students (22.9%) than their Black (11.7%) and Hispanic (17.6%) counterparts (YRBSS, 2011). In addition, the prevalence of having been bullied on school property was higher among White female (25.2%) than Black female (12.2%) and Hispanic female (19.3%) students (YRBSS, 2011). Despite this information, victimization across racial/ethnic groups has been inconsistently revealed in the literature. While Nansel et al. (2001) found that Hispanic youth reported bullying others more than their black and white counterparts, other studies find dissimilar results. Among 2,948 students enrolled in Massachusetts’ public high schools, there were no statistically significant differences observed in levels of bullying others based on race/ethnicity (MCKENNA ET AL., 2011). Although some researchers have suggested that more bullying takes place in schools with a heterogeneous (racially diverse) student composition (Crooks, 2011), others believe that bullying might be more likely to take place within ethnic/racial groups than between them (Stassen Berger, 2007). Importantly, cultural differences regarding attitudes toward violence also should be acknowledged as an influential variable in determining how students of different race/ethnicity will report their bullying and/or victimization experiences.

Clearly, such studies that focused on an examination of the relationship between race/ethnicity and bullying others present mixed findings. With regard to the results from this study, findings revealed statistically significant differences in levels of bullying others
in context of race/ethnicity. In specific, statistically significant differences were revealed among students who reported being Black or African American and those who reported being of more than one race. These results, however, should be interpreted carefully. A majority the sample (70.3%) in this study reported that they were White, whereas 18.9% of the sample reported that they were Black or African American. In addition, 7.2% of the sample reported that they were of more than one race. Because of this unequal distribution of race/ethnicity across the entire sample, significant findings could have been related to the sample size of racial/ethnic groups. In context of the literature and findings from hypothesis two, further research should focus on subject pools containing large and more equal representation of subjects in each race/ethnic category in order to better understand the effects of this variable on bullying others. In addition, Rees and Sabia (2010) proposed that future research using race/ethnicity as an influential variable should first attempt to study why students of certain race/ethnicity participate in interscholastic sports. As indicated by Eitle and Eitle (2002), sociocultural variables like those found in the neighborhood might mediate the decision of any individual to play sports (Eitle, 2005). By exploring the sociocultural factors involved in the decision to participate in interscholastic athletics, race/ethnicity and its association with health risk behavior could be more accurately attributed to the effects of sport participation rather than other factors (Rees & Sabia, 2010).

**Current Achievement and Bullying Others**

In context of hypothesis three, studies have demonstrated that participation in athletics has been associated with better grades, higher educational and occupational
aspirations, and more positive attitudes towards school (Eccles & Barber, 1999; Eitle & Eitle, 2002; Silliker & Quirk, 1997). The work of previous scholars has shown that participation in sports can improve self-esteem, locus of control, and time on homework (Broh, 2002). In addition, students have been shown to benefit from participation in interscholastic athletics through enhanced social status, which in turn creates connections between students and their parents, and students and their schools. The body of research about interscholastic athletic participation has demonstrated that athletics can bolster health related outcomes. In this context, female athletes have been shown to benefit from an improved self-esteem (Taylor & Turek, 2010). In addition, sports participation has been shown to enhance both school adjustment and self-esteem among girls enrolled in rural and urban high schools (Taylor & Turek, 2010).

Given the findings from this study, current academic achievement was found to be a statistically significant variable to bullying others. In support of the body of research confirming that extracurricular activities enhance academic performance, the results from this study support the exploration of academic achievement and bullying others among broad samples of women athletes. While there is little doubt that the connections fostered through athletic participation can benefit students personally and socially, there is less certainty about the potential for academic gain as a causal function of participation in interscholastic sport (Rees & Sabia, 2010). In order to attribute the cause of academic gain to participation in interscholastic athletics, researchers should employ methodological approaches that collect data over time. Finally, a recommendation for examining this relationship between bullying others and academic performance is to examine academic
achievement as a dependent variable on sport specific factors such as in season versus out of season, starters versus non-starters, and individual versus team sport athletes.

**Perceived School Connectedness and Age**

McNeely et al.’s (2002) work on school connectedness revealed that students who are involved in extracurricular activities are more likely to perceive themselves to be connected to their school. In addition, Whitlock (2006) found that females were more likely to report being connected to school than their male counterparts. In addition, Whitlock found that younger students (grades 8 and 10) were more likely to be connected to school than their grade 12 counterparts.

In context of hypothesis four, the results from this study revealed that age exerted no statistically significant influence over perceived school connectedness. In specific, younger athletes reported being no more connected to their school then did their older athlete counterparts. In addition to opposing the results of Whitlock (2006), these findings also run contrary to the broader body of literature about age as an influential variable to school connectedness (Thompson et al., 2006). Because of the absence of a statistically significant relationship revealed among subjects in this study, further research focused on an exploration of the topic should continue to look at age in context of school connectedness among athletes.

**Perceived School Connectedness and Race**

Perceived school connectedness has been shown to be higher among students enrolled in schools where the student composition is racially/ethnically homogeneous (Thompson et al., 2006). Further, school connectedness has been shown to be lower
among students enrolled in schools where the student composition is more racially/ethnically diverse (Thompson et al., 2006).

In context of hypothesis five, there was no difference in levels of perceived school connectedness among students who reported that they were White, those who reported that they were Black or African American, and student athletes who reported that they were Hispanic. In this context, race exerted no statistically significant influence over school connectedness among subjects. These results of this study suggest no statistically significant differences among student race/ethnicity on the connectedness variable for all athlete subjects used in the sample. Based on these findings, future research should explore the relationship between race/ethnicity on perceived school connectedness using a larger sample size.

**Perceived School Connectedness and Current Achievement**

The variable of school connectedness has been shown to be an influential variable to student academic outcomes. In specific, Klem and Connell (2004) found that school connectedness was associated with improved academic outcomes for students. As it relates to extracurricular activity participation, McNeely et al. (2002) identified that students involved in extracurricular activities reported a greater sense of connection to school and were more likely to report receiving higher grades than students who did not participate in extracurricular activities.

In context of hypothesis six, there was no statistically significant difference in levels of connectedness according to current achievement. In specific, students who reported receiving Mostly A’s perceived no more of a connection to their school than
students who reported receiving Mostly B’s and C’s. In this context, these findings run contrary to the literature. Because of this, further research should continue to explore the relationship between academic achievement and perceived school connectedness among athletes.

**Bullying and Perceived School Connectedness**

The early work of Resnick et al. (1997) had established that school connection is a protective factor against student violence. More importantly, the work of You et al. (2008) examined hope, life-satisfaction, and school connectedness in context of bullying behavior. They confirmed that students who were affected by bullying (as bullies, victims, or bullied-victims) experienced significantly lower levels of school connection (You, et. al., 2008). Similarly, O’Brennan and Furlong (2010) recently examined bullying and school connectedness and also found that students who reported the highest levels of connectedness also reported the lowest levels of involvement in bullying.

Like the work of You et al. (2008) and O’Brennan and Furlong (2010), this study sought to analyze the relationship between the two constructs of bullying others and school connectedness among female athletes. In context of hypothesis 10, the results from the correlation analysis revealed statistically significant findings. In this study, there is a significant and negative relationship between bullying others and school connectedness. This suggests that among female athlete subjects in this study, as scores for bullying others increased, scores for perceived school connectedness decreased and vice versa. This statistically significant relationship was supported by the literature, which suggested that these two constructs were related. Although the body of literature focused on the
impact of bullying others on student relationships is growing, this study has made a unique
contribution to analyzing the impact of these two variables among student arranged in a peer group. Importantly, there is no evidence to date that has examined bullying others and school connectedness using interscholastic women athletes.

**Recommendations for Future Research About School Bullying**

Communication between researchers and schools is a critical recommendation for future research on the topic of bullying. While researchers commonly defer to the definition of bullying in context of the work of Olweus (1993), there are inconsistencies about the ways in which bullying is defined and measured in the academic literature. Future researchers would be supported in their work if a seminal definition of this construct would be adopted. Then, such a definition could be used to inform research and practice. Secondary to this concern, researchers should be active in educating the public about the definitions, consequences, and causes of bullying.

Due to the multifaceted and complex nature of the behavior, Pellegrini and Long (2002) recommended that researchers use multiple forms, methods, and informants to study bullying among students. These forms include, but are not limited to, any combination of the following data sources:

1. self-reporting,
2. peer reporting,
3. adult observations,
4. public records including school absences, official assaults, injuries treated at hospitals, and
5. police crime logs.

Further, researchers should attempt to use multiple methods of acquiring information such as through the use of questionnaires, interviews, focus groups, or observations. Importantly, researchers should attempt to use multiple informants in the school setting. Teachers can act as key informants in the school as their observations can be a useful tracking mechanism. Finally, researchers should attempt to develop longitudinal studies to identify causal links and mechanisms that connect sport participation and health risk behaviors, such as bullying.

**Recommendations for Conducting Applied Research in Schools**

The role that schools play in managing and confronting health issues among students is significant. Importantly, however, in context of a range of variables including the obligation to meet state wide academic proficiencies, health promotion often is deemed less important. Fortunately, much research to date has proven that embedding health in the academic environment has been beneficial to both student health outcomes and academic performance. In the landmark publication *Health is Academic*, schools were encouraged to adopt a coordinated school health approach to manage health-risk behaviors among youth (Marx et al., 1998).

Notwithstanding these academically-based institutional priorities, health promotion undergirded with the foundation of findings from a sound needs assessment is critical. In an attempt to manage the challenges associated with conducting research in schools, and to the extent that these recommendations can provide researchers with suggestions for interpreting a unique setting and *culture* for research, researchers are encouraged to:
1. Plan ahead. Anticipate that a research proposal will need several approvals. These approvals are likely to include but are not limited to the district/school level, building principal, and coach.

2. Explain why/how the research will benefit the students and overall school community in the research proposal. Align institutional priorities to the research,

3. Follow-up and keep in contact. Continue to remain in contact with the individuals responsible for project approval. Provide completed documents (if requested) in a timely manner,

4. Be flexible. Plan on ways to communicate with individuals using multiple modes of communication (phone, email, text message),

5. Be polite. Thank the individuals in the school for participating in the research, and

6. Foster relationships. Continue to maintain a relationship with the school(s) after the research has been completed. This will increase the probability that the school(s) will be receptive to participating in the future.

**Recommendations for School-Based Administrators/Principals on Implementing Bullying Risk Reduction Programs**

No matter which policies/programs/interventions are implemented in schools, a proactive, integrated, and comprehensive approach to bullying prevention and management has been recommended in the literature (Adelman & Taylor, 2011b). Unfortunately, such a best practice approach to bullying-risk reduction is not implemented
in schools. Instead, efforts directed at bullying prevention lack focus and often scientific evaluation. In light of this, there are several recommendations for administrators and other school officials responsible for the production and enforcement of anti-bullying agendas. First, schools need to understand that multi-causal behaviors will not disappear with any single effort. Unfortunately, few schools truly understand the complexity of the problem and so piecemeal approaches continue to be a concern. Further, anti-bullying programs should be sustained over many years so as to allow time for adaptation and tailoring to meet local needs.

Schools also need to evaluate the impact of all youth sub-cultural groups, including those of student athletes, on bullying behavior. Bullying is a construct and behavior related to a social interaction and part of peer culture (Dixon, Smith, & Jenks, 2003). Thus, schools should recognize the importance of peers groups. In this regard, administrators are encouraged to reach out to the broadest constituencies in their community and to establish collaborative relationships with individuals with specialized expertise. Other strategies for reducing school bullying include:

1. ongoing professional development for teachers,
2. training for every adult in state of the art intervention strategies to de-escalate conflicts among students (Garbarino & deLara, 2003),
3. developing a plan with input of all stakeholders in the school including student input from every social group (Garbarino & deLara, 2003),
4. empowering students to stand up and speak against bullying (Wessler, 2008), and
5. obtaining continual feedback from students on the effectiveness of strategies used (Garbarino & deLara, 2003).

Finally, as it relates to school policy-based recommendations, Craig, Pepler, and Atlas (2000) recommended that school level anti-bullying policies include:

1. a school-wide commitment to address bullying,
2. a statement of rights and responsibilities for all members of the school community,
3. a definition of bullying,
4. types of bullying,
5. the process for identifying and reporting bullying,
6. expected ways for students and staff to respond to bullying,
7. strategies that will be implemented, and
8. way to assess effectiveness of anti-bullying efforts (Craig et al., 2000).

In addition to these recommendations for anti-bullying policies, schools need to undergo a critical self-evaluation by mapping, analyzing, tracking, and setting priorities to ensure students have an opportunity to succeed academically. Adelman and Taylor (2011b) proposed a framework to help schools address barriers to learning and teaching. Specific recommendations based on this framework included:

1. Building teacher capacity to re-engage disconnected students and maintain their engagement
2. Providing support for the full range of transitions that students and families encounter as they negotiate school and grade changes
3. Responding to and preventing academic, behavioral, social-emotional problems and crises

4. Increasing community and family involvement and support

5. Facilitating student and family access to effective services and special assistance as needed. (Exhibit 2, Adelman & Taylor, 2011b, p. 16)

Demanet and Van Houtte (2011) have suggested that schools should be included in the tracking of data related to school connectedness and to use that information to screen students for at-risk behaviors. In addition, research has confirmed that victims of bullying often lack the support of their peers (Demanet & Van Houtte, 2011). As such, schools have taken measures to combat bullying through the use of peer-level support systems. One such example is the Support Group Approach (Young, 1998), a solutions based program incorporating the support of peer groups to help bullied children come up with solutions to manage this behavior. Such approaches have been found to be helpful in managing the negative outcomes associated with children who are bullied.

Clearly, the literature has demonstrated a need for administrators to consider evidence-based bullying prevention programs that seek to alter the overall school climate as a primary mechanism for creating change. In addition, a consideration for the developmental needs of students (like those of student athletes) might prove to be a helpful protective factor to enrich school level anti-bullying policies and practices. In addition, schools can offer intramural sports and noncompetitive exercise opportunities to create opportunities to promote membership among students and boost student morale.
By enhancing connections among students, schools can improve their overall school climate.

**Recommendations for Coaches and Athletic Directors**

In addition to administrators/policy makers, educators, and researchers, coaches are influential stakeholders in the confrontation and management of the broadest range of issues related to the health of athletes. Based on the results from this study, there are several recommendations for athletic staff with regard to bullying prevention. First, coaches and athletic directors together should create opportunities to integrate information about health behaviors (like bullying) into sport programming. In this context, coaches can tailor this information to meet the unique needs of the team. In addition, athletic directors and coaches should take advantage of opportunities to help young athletes manage issues related to bullying. Further, athletic directors and coaches must address any problems related to bullying immediately. Finally, athletic directors and coaches should attempt to create environments that discourage such problem behaviors. Extending the focus on bullying-prevention among athletes by focusing on the role of the healthy competitive environment provides a promising avenue by which athletic directors and coaches can minimize bullying.

**Recommendations for Future Research With Athletes**

The literature about interscholastic sports participation and health-risk behavior is mixed. Cohen et al. (2007) postulated that among interscholastic athletes, improvement in health-risk behavior resulted from an increase in supervision, positive adult and peer role models, and improved self-efficacy. In general, athletes have been shown to engage in
more positive health behaviors and in fewer negative health behaviors than their non-athlete counterparts (Cohen et al., 2007). On the other hand, while sport participation has been shown to be generally beneficial to participants, the potential for some negative health behaviors to occur in certain subgroups warrants attention. For example, although White female athletes were less likely than their White non-athlete counterparts to report experiencing forced sexual intercourse, being in a fight at school, feeling unsafe at school, and considering and attempting suicide, these same relationships were not present among females representing racial/ethnic minority groups (Taliaferro, Rienzo, Miller, Pigg, & Dodd, 2010). As indicated in the literature, findings from this study support the exploration of health-risk behavior and protective factors among young women athletes.

**Study Limitations**

**Study Design**

Due to the cross-sectional nature of this study design, the results were limited only to the subject pool of athletes in the schools for which sample data were collected. Generalizations beyond this subject pool cannot be made. According to Bordens and Abbott (2005), “simply observing that changes in one variable that tend to be associated with changes in another is not enough to establish that the relationship between them is a causal one” (p. 98). Due to the cross-sectional design of this study, no longitudinal or causal relationships can be inferred.

Another limitation to using a cross-sectional design is related to the internal validity of the study. According to Campbell and Stanley (1963), internal validity consists of the ability of the research design to accurately test the research hypothesis. One threat
to internal validity is the lack of control over confounding variables. According to Bordens and Abbott (2005), confounding variables are “two or more variables that combine in such a way that their effects cannot be separated” (p. 110). Due to the cross-sectional design, confounding variables are acknowledged as a potential limitation of this study. As examined, the relationship between bullying others and perceived school connectedness, while significant, might be affected by confounding variables. On the other hand, the purposive selection of subjects from the same school district and athletic conference was done to account for underlying differences among subjects.

**Self-Reported Measures**

Self-report measures were used in this study. In specific, a Likert scale was used to measure the subject’s level of agreement to a statement. As a way to quantify the dependent variables used in this study, the Likert scale items were coded 1-5 and a composite score was created for each dependent variable. One of the concerns associated with the use of a Likert scale was the degree to which participants responded in valid ways (Bordens & Abbott, 2005). For example, students may not be able to assess the extent of their prior participation with bullying others. Another limitation of using self-report data is that the researcher has little control over the extent to which subjects were reporting truthfully. In this study, this lack of control is acknowledged as a potential limitation because subjects might not have been willing to admit to socially undesirable behavior such as bullying others.

Another limitation pertaining to use of self-report data was recall bias. Recall bias describes a type of bias generated from the subject’s lack of accurate memory. In the case
of this study, the potential for recall bias was greater if subjects provided responses to items on the instrument in October, rather than in September. As such, there was more time that had elapsed since the beginning of the sport season.

Finally, a limitation to this study was response bias. This type of bias occurs when subjects intentionally responded incorrectly to the questions in the instrument. As it applies the entire instrument used in this study, this type of systematic error has been acknowledged as another limitation of self-report data.
APPENDIX A

INSTRUMENT
Appendix A

Instrument

Please circle the number under the answer that best describes your agreement or disagreement with the statements listed in #1-#12 below.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel close to people at this school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I feel like I am a part of this school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I am happy to be at this school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. The teachers at this school treat students fairly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I feel safe in my school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Adults at my school care about people my age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. At school there is a teacher or some other adults who believes I will be a success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Adults in my school push me to do my best.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Adults in my school listen to what I have to say.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. I care about the school I go to.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. I trust the adults at my school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. I talked to a teacher or other adult in the school about a personal problem I had.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Questions #13-30 will ask you about things that have been done to you while at school during the current sport season. Please circle the number under the category that is closest to your answer.

<table>
<thead>
<tr>
<th>During this current sport season:</th>
<th>Everyday</th>
<th>Several times a week</th>
<th>Once or Twice a week</th>
<th>Once or Twice a month</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. I was teased by students saying things to me.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>14. I was pushed or shoved.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>15. A student wouldn’t be friends with me because other people didn’t like me.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>16. A student made rude remarks at me.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>17. I was hit or kicked hard.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>18. A student ignored me when they were with their friends.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>19. Jokes were made about me.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>20. Students crashed into me on purpose as they walked by.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>21. A student got their friends to turn against me.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>22. My property was damaged on purpose.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>23. Things were said about my looks I didn’t like.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>24. I wasn’t invited to a student’s place because other people didn’t like me.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Questions #31-48 will ask you about things that YOU have done while at school during the current sport season. Please circle the number under the category that is closest to your answer.

<table>
<thead>
<tr>
<th>Question</th>
<th>Everyday</th>
<th>Several times a week</th>
<th>Once or Twice a week</th>
<th>Once or Twice a month</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>31. Teased someone by saying things to them.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>32. Pushed or shoved a student.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>33. Made rude remarks at a student.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>34. Got my friends to turn against a student.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>35. Made jokes about a student.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>36. Crashed into a student on purpose as they walked by.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37. Picked on a student by swearing at them.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>38. Told my friends things about a student to get them into trouble.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>39. Got into a physical fight with a student because I didn’t like them.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>40. Said things about their looks they didn’t like.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>41. Got other students to start a rumor about a student.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>42. I slapped or punched a student.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>43. Got others to ignore a student.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>During this current sports season:</td>
<td>Everyday</td>
<td>Several times a week</td>
<td>Once or twice a week</td>
<td>Once or twice a month</td>
<td>Never</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>----------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>-----------------------</td>
<td>-------</td>
</tr>
<tr>
<td>44. Made fun of a student by calling them names.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>45. Threw something at a student to hit them.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>46. Threatened to physically hurt or harm a student.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>47. Left them out of activities or games on purpose.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>48. Kept a student away from me by giving them mean looks.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Please fill in the bubble for the answer that is most true about you.

49. How old are you?
   - 14 years old
   - 15 years old
   - 16 years old
   - 17 years old
   - 18 years old

50. What is your race? (Select one or more responses.)
   - American Indian or Alaska Native
   - Asian
   - Black or African American
   - Native Hawaiian or Other Pacific Islander
   - White
   - Hispanic
   - Latino

The following two questions are about your grades in school.

51. In my current grading period I expect to receive:
   - Mostly A’s
   - A’s and B’s
   - Mostly B’s
   - B’s and C’s
   - Mostly C’s

52. Last grading period I received:
   - Mostly A’s
   - A’s and B’s
   - Mostly B’s
   - B’s and C’s
   - Mostly C’s

You are finished. Thank you! 😊
Appendix B

Permission(s) to use Instrument Scales

Kent State University Mail - Permission to Use Instrument  https://mail.google.com/mail/?ui=2&ik=a1ba9604d5&view=pt&src=...

Permission to Use Instrument

2 messages

Elizabeth Fetrow <efetrow@kent.edu>  Mon, Nov 7, 2011 at 11:57 AM
To: r.parada@uws.edu.au

Hello Dr. Parada,

My name is Liz Fetrow, and I am a doctoral candidate at Kent State University, in Northeast Ohio. I am writing a dissertation on bullying behaviors among female high school athletes, and I wanted to seek permission to use your instrument: Parada, R. H. (2000). Adolescent Peer Relations Instrument: A theoretical and empirical basis for the measurement of participant roles in bullying and victimization of adolescence, which I found in a compendium of assessment tools titled: Measuring Bullying, Victimization, Perpetration and Bystander Experiences compiled by Hamburger, ME, Basile KC, and Vivolo AM.

I would sincerely appreciate your permission in allowing me to use this instrument as part of my data collection.

Thank you so much,
Liz

Liz Fetrow M.A.
Doctoral Candidate
Health Education and Promotion
122 Nixon Hall
Kent State University
Kent, OH 44242

---

Roberto Parada <R.Parada@uws.edu.au>  Mon, Nov 7, 2011 at 8:42 PM
To: Elizabeth Fetrow <efetrow@kent.edu>

Dear Liz,

Thank you for your interest in using the APRI. Please use this e-mail as formal permission to use the APRI for your research. I have attached copies of the instrument in Word and scoring key. I have also attached a recent publication which has the latest psychometric evaluation of the APRI. I wish you all the best in your studies if there is anything else I may assist you with please do not hesitate to contact me.

Kind regards,
Roberto

Dr Roberto R Parada PhD MAPS
Lecturer Adolescent Development, Behaviour, Well-Being and Pedagogical Studies
Kent State University Mail - Permission to Use Instrument

School of Education
University of Western Sydney
Locked Bag 1797
Penrith NSW 2751
Australia

Ph: 4736 0051
Fx: 4736 0400

Important: This email message is intended only for the use of the addressee and may contain confidential or legally privileged information. Unless you are the addressee you may not use, copy or disclose to anyone the message or any information contained in the email. If you receive this message in error please notify the author immediately and delete all copies of this email.

From: Elizabeth Fettrow [mailto:eftrow@kent.edu]
Sent: Tuesday, 8 November 2011 3:58 AM
To: Roberto Parada
Subject: Permission to Use Instrument

[Quoted text hidden]

3 attachments

APRI BT.doc
45K

APRI BT Scoring Key.doc
29K

Construct Validity of Bullying Marsh et al 2011.pdf
353K
Permission to Use Instrument

2 messages

Elizabeth Fettrow <efettrow@kent.edu>  Mon, Nov 7, 2011 at 12:12 PM
To: cmcneely@uk.edu

Hello Dr. McNeely,

My name is Liz Fettrow, and I am a doctoral candidate at Kent State University, in Northeast Ohio. I am writing a dissertation on self-reported levels of school connectedness and bullying behaviors among female high school athletes, and am seeking your permission to use the school connectedness scale used in the following work: Promoting School Connectedness: Evidence from the National Longitudinal Study of Adolescent Health (2002), specifically listed on page 139/140. I would like to combine your instrument, with an instrument found in Dr. Whitlock's (2006) publication to create a scale to measure this variable in my population of interest.

I would be most grateful for your permission to use your connectedness scale.

Thank you,

Liz

--

Liz Fettrow M.A.
Doctoral Candidate
Health Education and Promotion
122 Nixson Hall
Kent State University
Kent, OH 44242

Clea McNeely <cleamcnneely@gmail.com>  Mon, Nov 7, 2011 at 6:57 PM
To: Elizabeth Fettrow <efettrow@kent.edu>

Hi Liz,

The measure of connectedness that I used came from the Add Health dataset. It is not proprietary and you are free to use it.

Thanks so much for your considerate request, nonetheless. Best of luck with your dissertation!

[Quoted text hidden]

--

Clea McNeely, DrPH
Vice President for Programming, Society for Research on Adolescence
Center for the Study of Youth and Political Conflict
Department of Public Health
University of Tennessee, Knoxville
Permission to Use Instrument

2 messages

Elizabeth Fettrow <efettrow@kent.edu>  Mon, Nov 7, 2011 at 12:05 PM
To: jlw43@cornell.edu

Hello Dr. Whitlock,

My name is Liz Fettrow, and I am a doctoral candidate at Kent State University, in Northeast Ohio. I am writing a dissertation on school connectedness and bullying behaviors among female high school athletes, and I wanted to seek your permission to use the school connectedness instrument in your article: Youth Perceptions of Life at School: Contextual Correlates of School Connectedness in Adolescents (2006). This is listed in Table 2. on page 19. My intent is to combine your scale, as well as a scale used by McNeely (2002) to measure school connectedness in my study.

I appreciate your willingness to consider allowing me to use your instrument for my dissertation work.

Thanks,

Liz

Liz Fettrow M.A.
Doctoral Candidate
Health Education and Promotion
122 Nixon Hall
Kent State University
Kent, OH 44242

Janis L. Whitlock <jlw43@cornell.edu>  Tue, Nov 8, 2011 at 10:14 PM
To: Elizabeth Fettrow <efettrow@kent.edu>

Hi Liz,

Of course, please feel free to use the scale as you see fit. I am thrilled that you are doing the work you are doing and would love to know what you find when you are done!

Janis

From: Elizabeth Fettrow <efettrow@kent.edu>
Date: Mon, 7 Nov 2011 12:05:05 -0500
To: jlw43 Whitlock <jlw43@cornell.edu>
Subject: Permission to Use Instrument

[Quoted text hidden]
APPENDIX C

SCRIPT TO COACHES
Appendix C

Script to Coaches

Dear Coach,

Thank you for your willingness to participate in this study. Below you will see a list of instructions. Please adhere to these instructions. Should you have any questions, please notify me. My email address is efettrow@kent.edu, and my phone number is 717-512-3453.

Directions:
1. Gather all of your athletes in one room. Once gathered, please read the script below (Script to athletes).
2. Distribute the packets containing parent consent forms to all of your female athletes (both the JV and Varsity team, if it applies).
3. Send an email to Liz at efettrow@kent.edu letting her know you have distributed the parent consent forms. Liz will ask you for a day/time to set up data collection. Data collection will take approximately 15 minutes.

Script to Athletes:

Dear athletes,

You have been invited to participate in a research study. Liz Fettrow, a graduate student from Kent State University is writing her dissertation and would sincerely appreciate your help with her research. Before she can ask you for your help, she must have obtained your parents’ permission. You are now being handed an envelope that contains a parent consent form. Please take this form home to your parents and discuss it with them. Ask them to read over the form and sign the form to allow you to participate in the research study. Please know you will not be penalized if your parents do not want you to participate in this research study. Make sure your parents know they can email Liz at the email address indicated on the form if they have any questions or concerns. Once your parents have filled out the form, put it back in the envelope and seal the envelope. Please bring this envelope back to me, your coach. You will have until ______________ to bring the form back to me.

Thank you!
APPENDIX D

KENT STATE UNIVERSITY IRB APPROVAL
Appendix D

Kent State University IRB Approval

Kent State University Mail - IRB approval for protocol #12-155 - reta...

Elizabeth Fettrow <efettrow@kent.edu>

IRB approval for protocol #12-155 - retain this email for your records

Tue, Mar 20, 2012 at 8:49 AM

KIEHL, LAURIE <kiehl@kent.edu>
To: "efettrow@kent.edu" <efettrow@kent.edu>
Cc: "SYMONS, CYNTHIA" <csymons@kent.edu>

RE: IRB #12-155 entitled "Bullying Behaviors among Female High School Athletes"

I am pleased to inform you that the Kent State University Institutional Review Board reviewed and approved your Application for Approval to Use Human Research Participants. Approval is effective for a twelve-month period:

March 19, 2012 through March 18, 2013

*A copy of the IRB approved consent form is attached to this email. This “stamped” copy is the consent form that you must use for your research participants. It is important for you to also keep an unstamped text copy (i.e., Microsoft Word version) of your consent form for subsequent submissions.

Federal regulations and Kent State University IRB policy require that research be reviewed at intervals appropriate to the degree of risk, but not less than once per year. The IRB has determined that this protocol requires an annual review and progress report. The IRB tries to send you annual review reminder notices by email as a courtesy. However, please note that it is the responsibility of the principal investigator to be aware of the study expiration date and submit the required materials. Please submit review materials (annual review form and copy of current consent form) one month prior to the expiration date.

IRB regulations and Kent State University Institutional Review Board guidelines require that any changes in research methodology, protocol design, or principal investigator have the prior approval of the IRB before implementation and continuation of the protocol. The IRB must also be informed of any adverse events associated with the study. The IRB further requests a final report at the conclusion of the study.

Kent State University has a Federal Wide Assurance on file with the Office for Human Research Protections (OHRP). FWA Number 0001853.

If you have any questions or concerns, please contact me at 330-672-2704 or povashko@kent.edu.
Respectfully,

Kent State University Office of Research Compliance
224 Cartwright Hall | fax 330.672.2658

Kevin McCready | Research Compliance Coordinator | 330.672.8068 | kmccread1@kent.edu
Laurie Kiehl | Research Compliance Assistant | 330.672.0837 | lkiehl@kent.edu
Paulette Washko | Manager, Research Compliance | 330.672.2704 | Pwashko@kent.edu

For links to obtain general information, access forms, and complete required training, visit our website at www.kent.edu/research.

---

KIEHL, LAURIE <kiehl@kent.edu>  Tue, Mar 20, 2012 at 8:57 AM
To: "efettrow@kent.edu" <efettrow@kent.edu>
Cc: "SYMONS, CYNTHIA" <csymons@kent.edu>

[Quoted text hidden]

12-155 - Consent Forms 3.20.12.pdf
3618K

---

Elizabeth Fettrow <efettrow@kent.edu>  Tue, Mar 20, 2012 at 9:06 AM
To: "KIEHL, LAURIE" <kiehl@kent.edu>
Cc: "SYMONS, CYNTHIA" <csymons@kent.edu>

Hi Laurie,

Can you clarify- is this protocol #12-155 approved? I am confused by the "recall."

Thanks,

Liz
Fw: Help please?
2 messages

Liz Fettrow <efettrow@kent.edu>  
Reply-To: efettrow@kent.edu  
To: lhiehl@kent.edu

Wed, Mar 14, 2012 at 7:32 AM

Hello Laurie,

Dr. Ridgel sent in my IRB with a note about permission from the school. Here is the permission from Mr. Anthony Horton at Slav high school. Please accept this with my IRB application for Elizabeth Fettrow.

Thank you so much,

Liz

---

From: "Horton, Anthony" <st_horton@smfcsd.org>  
Date: Wed, 14 Mar 2012 11:13:53 +0000  
To: efettrow@kent.edu<efettrow@kent.edu>  
Subject: RE: Help please?

Hey Liz,

We didn't meet on Monday but I showed Sue, the head principal, yesterday and she said everything looked good. You have the green light to do your study. If you need anything else let me know.

Thanks,

Anthony

---

From: Liz Fettrow [efettrow@kent.edu]  
Sent: Monday, March 12, 2012 7:32 PM  
To: Horton, Anthony  
Subject: Re: Help please?

Hi Mr. Horton,

Sorry for any imposition- did everything go OK with the meeting today?

Thanks SO much,  

Liz

---

From: "Horton, Anthony" <st_horton@smfcsd.org>  
Date: Wed, 7 Mar 2012 15:01:28 +0000
To: cfeitrow@kent.edu, cfeitrow@kent.edu
Subject: RE: Help please?

Hey Liz,

I can do Friday at 1:00 or I can do Monday at 1:00. Either day is good for me.

Thanks,
Anthony

From: Liz Fettrow [cfeitrow@kent.edu]
Sent: Tuesday, March 06, 2012 8:31 AM
To: Horton, Anthony
Subject: Re: Help please?

Hi Anthony,

Thank you! I am so pleased to hear you are willing to help.

I know this is soon- but I am available to meet Thursday Friday this week, any time after 10am. Will either of these days be available for you?

If not- next week I can do Monday (same times).

Thanks so much!

Liz

From: "Horton, Anthony" <st_horton@smfcsd.org>
Date: Tue, 6 Mar 2012 13:18:06 +0000
To: SYMONS, CYNTIIA <cysmons@kent.edu>; Schur, Susan <st_sschur@smfcsd.org>
Cc: cfeitrow@kent.edu, cfeitrow@kent.edu
Subject: RE: Help please?

Dr. Symons and Liz,

We are more than willing to participate in this study. I will be the contact person for Liz, she can contact via email or phone. When we meet she can give me all the details and then we can take the next step.
Thanks,

Anthony Horton
Assistant Principal SMFHS
330-689-5209

From: SYMONS, CYNTHIA [csymons@kent.edu]
Sent: Sunday, March 04, 2012 2:42 PM
To: Schur, Susan; Horton, Anthony
Cc: efetrow@kent.edu
Subject: Help please?

Dear Sue and Anthony:

I need a bit of help and direction. As you can see, I have copied this message to one of my doctoral students who is developing a dissertation that will analyze the influence of a number of variables on bullying behaviors among female high school student/athletes. Since she is supervising a student teacher this semester who is working with Jen Kurtz at Aurora Middle School and Jen is your Lacrosse Coach, we'd like to explore the possibility of using your women's lacrosse team as the sample of women athletes for her pilot study. Then, these results will inform her larger dissertation research among another group of student/athletes from another district. Of course, before any of this can happen, she will proceed through all the steps of securing human subjects review board clearance (IRB) here at Kent State.

With this in mind and the recognition that your district might have established a similar protocol for the protection of students as research subjects, I'd like to seek your direction about next steps. In specific, I'd like to have this message serve as an introduction of Elizabeth Fettrow (I think either or both of you have met Liz when you have worked with our student teachers in past semesters). In addition, in response to your reply (please 'reply all'), I'd like to have Liz contact either of you and/or your designee to arrange a meeting during which she can discuss the details of her study and learn about specific steps that she must take to secure approval to collect data from your women's lacrosse team. Importantly, she has not had any conversation with Jen Kurtz nor anyone else from SMFCSD about this matter. We await your direction before any such contacts will be made.

Liz and I really appreciate any direction and help that either or both of you can provide, Cindy

Cynthia W. Symons, D.Ed., CHES
Professor, Health Education and Promotion
Kent State University
Kent, OH 44242
(330) 672-0681

Mail Delivery Subsystem <MAILER-DAEMON@mx.kent.edu.pph4a.pphosted.com> Wed, Mar 14, 2012 at 7:32 AM
To: efetrow@kent.edu

The original message was received at Wed, 14 Mar 2012 04:32:30 -0700 from mail-lyc-0160.google.com [209.85.210.180]

----- The following addresses had permanent fatal errors ----- 
<hiichii@kent.edu>
(reason: 550-5.1.1 The email account that you tried to reach does not exist. Please try)

----- Transcript of session follows ----- 
... while talking to aspmx1.google.com.
>>> DATA
214

Kent State University Mail - Fw: Help please? https://mail.google.com/mail/u/0?ui=2&ik=61ba903d53&view=pt&sid...
Sorry for any imposition - did everything go OK with the meeting today?

Thanks SO much,
Liz

From: "Horton, Anthony" <st_horton@smfcsd.org>
Date: Wed, 7 Mar 2012 15:01:28 +0000
To: efettrow@kent.edu<efettrow@kent.edu>
Subject: RE: Help please?

Hey Liz,

I can do Friday at 1:00 or I can do Monday at 1:00. Either day is good for me.

Thanks,
Anthony

From: Liz Fettrow <efettrow@kent.edu>
Sent: Tuesday, March 06, 2012 8:31 AM
To: Horton, Anthony
Subject: Re: Help please?

Hi Anthony,

Thank you! I am so pleased to hear you are willing to help.

I know this is soon- but I am available to meet Thursday Friday this week, any time after 10am. Will either of these days be available for you?

If not- next week I can do Monday (same times).

Thanks so much!

Liz

From: "Horton, Anthony" <st_horton@smfcsd.org>
Date: Tue, 6 Mar 2012 13:18:06 +0000
To: SYMONS, CYNDIA<csymons@kent.edu>; Schur, Susan<st_sschur@smfcsd.org>
Cc: efettrow@kent.edu<efettrow@kent.edu>
Subject: RE: Help please?
Dr. Symons and Liz,

We are more than willing to participate in this study. I will be the contact person for Liz, she can contact via email or phone. When we meet she can give me all the details and then we can take the next step.

Thanks,

Anthony Horton
Assistant Principal SMFHS
330-689-5209

From: SYMONS, CYNTHIA [csymons@kent.edu]
Sent: Sunday, March 04, 2012 2:42 PM
To: Schur, Susan; Horton, Anthony
Cc: efettrow@kent.edu
Subject: Help please?

Dear Sue and Anthony:

I need a bit of help and direction. As you can see, I have copied this message to one of my doctoral students who is developing a dissertation that will analyze the influence of a number of variables on bullying behaviors among female high school student/athletes. Since she is supervising a student teacher this semester who is working with Jen Kurtz at Aurora Middle School and Jen is your Lacrosse Coach, we'd like to explore the possibility of using your women's lacrosse team as the sample of women athletes for her pilot study.

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Liz and I really appreciate any direction and help that either or both of you can provide. Cindy

Cynthia W. Symons, D.Ed., CHES
Professor, Health Education and Promotion
Kent State University
Kent, OH 44242
(330) 672-0681
Appendix E

Akron IRB Proposal

APPLICATION TO CONDUCT RESEARCH
IN THE AKRON PUBLIC SCHOOLS
(A Master’s Problem or Thesis, Doctoral Dissertation, Field Experience or Research Project)

DATE: 4/2/2012

NAME: Elizabeth Fettrow

ADDRESS: Levee Alpha Dr. #238 Kent OH 44240

TELEPHONE #: (330) 613-3453

BUILDING LOCATION: N/A

UNIVERSITY: Kent State University, Nixon Hall

Address: School of Health Sciences, P.O. Box 5190 Kent OH

Advisor: Dr. Wagner / Dr. Symons

CHECK (✓) ONE: Research Institution/Agency ✓ Graduate Student/Faculty

RESEARCH PROBLEM - TITLE: Bullying behaviors among female high school athletes

LIST OF AKRON PUBLIC SCHOOLS INVOLVED: Buchtel, East, Ellet, Firestone, Garfield, Kenmore, North (high schools)

Please send three (3) packets of your Research Proposal including the following:

1. Application to Conduct Research Form completely filled out (This sheet)
2. A Non-Technical Abstract/Proposal (not more than 4 pages)
3. An Approved Human Subject Review Board Letter (as appropriate)
4. Advisor’s letter of approval (for Doctoral Dissertation and Master’s Thesis)
5. The Researcher Responsibility Sign-Off form.
6. Questionnaires/tests/other instruments – A disclaimer used as a “footnote” on all pages.
7. Consent forms with a disclaimer as a footnote on all pages.
8. The Ohio Academic Content Standard(s) that your research supports.
9. Data Release Authorization Form (as appropriate)

Please allow SIX WEEKS for a response from our Research Proposal Review Team.

Please return your completed application to: Dr. Patricia Agble, Coordinator, Office of Testing, Research and Evaluation, School Improvement, Room 110, 65 Steiner Ave., Akron, OH 44301.

Revised: July 9, 2010
To: Research Project Coordinators/Students

From: Patricia K. Agble, Ph.D., Coordinator, Testing, Research and Evaluation

Re: Conducting Research within the Akron Public Schools

Thank you for your inquiry in regard to the possibility of conducting research in the Akron Public Schools.

Enclosed please find a copy of:

- Information and Guidelines Concerning Request to Conduct Research in the Akron Public Schools.
- Guidelines regarding Video Taping of Students and Protection of Pupil Rights.
- Researcher Responsibility Sign-Off form.
- Application to Conduct a Research Project in the Akron Public Schools.

If you have any questions after reviewing this information please do not hesitate to contact the Office of Testing, Research and Evaluation.

Best wishes as you progress through your research.

Attachments

Revised: July 9, 2010
AKRON PUBLIC SCHOOLS
RESEARCH APPLICATION GUIDELINES AND FORMS

Valid educational research is an integral part of our profession. Every effort is made to accommodate requests for scholarly and beneficial research within the Akron Public Schools. However, demands on students, professional staff, confidentiality, appropriateness, and the value of the proposed research to the Akron Public Schools are carefully weighed before approval is given.

With our geographic proximity to several universities, we limit the involvement of the Akron Public Schools to research conducted by graduate students, professors, or research agencies. The privilege is not extended to undergraduate projects.

Permission to conduct Action Research is limited to Akron Public Schools (APS) employees. When APS employees conduct Action Research: a short-term classroom or school-based problem-solving work that is not necessarily generalized to another setting (i.e., requirements are not as rigorous as in basic research), it must be approved by the building principal.

Program Evaluation: Prior to a building accepting/adopting a program, accessibility to the building must be approved by the Executive Director. All programs are to be evaluated annually. You may contact the office of Testing, Research and Evaluation for assistance.

Although research proposals are reviewed by the Office year-round, research proposals involving building personnel (e.g. students, teachers etc.) are forwarded to building principals from September 1 through April 15 for their review. Please allow at least six weeks for a response from our Proposal Review Team. Proposals will be approved for one year. If additional time is needed the researcher must request an extension.

The following procedures have been established for conducting research within the Akron Public Schools:

The researcher develops his/her problem specifically to describe what he/she wants to do and obtains the approval of his/her advisor. The proposal should be brief (2-4 pages), lucid, and specific, so that the Review Team may make its decision promptly. The proposal should delineate the expectations of school personnel.

Revised: July 9, 2010
The following proposal outline is suggestive:

I. **Statement of Problem**

II. Statement(s) identifying the Ohio Academic Content Standard(s) related to the research (see Ohio Department of Education’s website/www.ode.state.oh.us).

III. **Procedures**

   a. Level of school(s) to be used: Elementary, Middle, and/or High.
   b. Number of students, classes, teachers, and/or others needed.
   c. Methods of teaching, administering tests or other instruments, and general technique(s) for handling data.
   d. Realistic time commitment on part of staff.
   e. Procedures for distribution and returning materials (regulations restrict school mail service [non-mail] to official school business only).

IV. **Materials to be used in the study**

   (1) a non-technical abstract

   (2) approved/signed copy of the University Review of the research involving Human Subjects

   (3) the advisor’s letter of approval (as appropriate)

   (4) the Researcher Responsibility Sign-Off form

   (5) copies of questionnaire(s), tests, or any other instruments or materials to be used. A **disclaimer must be used as a footnote** on all pages of questionnaires regarding Akron Public Schools’ involvement, i.e., a statement acknowledging that you understand that your questionnaire is to be completed by participants voluntarily and the findings from this study in no way represent the philosophy and beliefs of the school district.

   (6) **Consent form(s) with the following components:**

      a. Description of procedure.
      b. Risks, benefits, alternatives.
      c. Time involved.
      d. Freedom to withdraw without prejudice.
      e. Name of researcher and how he/she may be reached for questions.
      f. Permission form to include: Child’s name, Relationship of signer, and date of signature.
      g. Disclaimer.

Revised: July 9, 2010
The identities of students and staff are not revealed in the proposal and final report/publication. The researcher conducts the research with minimal disruption to the school and its staff. The participation of all staff members, and/or students is voluntary.

The Proposal Review Team gives particular attention to:

a. Whether the research is warranted.
b. Problems of an educational instructional nature (Ohio Academic Content Standards).
c. Problems of a procedural or logistical nature or other potential problems.
d. Protection of Pupil Rights: Concerns of a legal nature, particularly rights to privacy on the part of the students and staff. Information Gathering Prohibitions, such as: (1) Political affiliations of student or parents (2) Mental problems of student or family (3) Sexual behavior or attitudes or (4) Religious practices, affiliations or beliefs of student or family.

The researcher is provided a written response of the Proposal Review Team.

The researcher may schedule an appointment with the Coordinator of Testing, Research and Evaluation to discuss the Proposal Review Team's decisions.

UPON COMPLETION OF THE PROJECT, A COPY OF THE STUDY/RESEARCH MUST BE PROVIDED TO THE TESTING, RESEARCH AND EVALUATION OFFICE. It will then be filed in Akron Public Schools' professional library.

AUDIO/VISUALS OF STUDENTS

To briefly take audio/visuals of Akron Public Schools' students, the researcher must:

1. Notify the building principal and secure written approval.
2. Obtain signature of approval from the University research advisor/professor (where applicable).
3. Notify parents of involved students, of project objective and obtain a written release for each student from their parent/guardian.
4. Submit to the Office of Testing, Research and Evaluation, a copy of:
   - the parent notification
   - building principal approval
   - University research advisor/professor approval

All audio/visuals are to be given to the building principal for cataloging or destruction.

Revised: July 9, 2010
THE PROTECTION OF PUPIL RIGHTS AMENDMENT (PPRA)

This federal law provides parents with important rights relative to surveys and certain non-emergency physical examinations conducted by schools that receive federal funds from the Department of Education.

The Protection of Pupil Rights Amendment (PPRA) is a statute originally enacted in 1978 that provides parents with important rights regarding surveys performed by schools. Such surveys may be overly intrusive and personal or may collect information for purposes other than those represented. The PPRA and a second federal law known as FERPA are enforced by the Family Policy Compliance Office (FPCO) of the US Dept. of Education.

The PPRA applies to any school that receives funds from the US Dept. of Education.

The law as amended in January 2002 (the No Child Left Behind Act of 2001) has significantly strengthened the rights of parents, as follows:

Researchers are required to have written parental consent prior to administering surveys that include questions falling into any of the following eight categories:

1. Political affiliations or beliefs of the student or the student’s parent;

2. Mental and psychological problems of the student or the student’s family;

3. Sex behavior and attitudes;

4. Illegal, anti-social, self-incriminating, and demeaning behavior;

5. Critical appraisals of other individuals with whom respondents have close family relationships;

6. Legally recognized privileged or analogous relationships, such as those of lawyers, physicians, and ministers;

7. Religious practices, affiliations, or beliefs of the student or student’s parent; or

8. Income (other than that required by law to determine eligibility for participation in a program or for receiving financial assistance under such program).

Parents and students must be given effective notice of their rights under the statute. (Specify in writing how you will give such notice.)


Revised: July 9, 2010
AKRON PUBLIC SCHOOLS (APS)
OFFICE OF TESTING, RESEARCH AND EVALUATION,
SCHOOL IMPROVEMENT

DATA RELEASE AUTHORIZATION FORM
(Required for Research, Grants or Partnerships)

Please return your completed form to: Dr. Patricia Aggle, Coordinator, Office of Testing, Research and Evaluation, School Improvement, Room 119, Ott Staff Development Center, 65 Steiner Avenue, Akron, OH 44301.
Tel.: (330) 761-3066; Fax (330) 761-3240

PLEASE PRINT/TYPED:

Organization:

Address:

Phone:

APS Program Manager/Grant Coordinator/Senior Staff: Please Print Name

Signature and Date

Description of data required:

Reason for the request/How will the data be used?

Expected project completion date:

I certify that data released to me by the Akron Public Schools will be used solely for the above purpose(s), and will not be given or sold to any other individual or entities. Upon completion of this use, all files will be deleted. No backups, copies, or portions of the files will be retained.

Signed: __________________________ Date: __________________________

Name/Title (Please print):

Approved By: __________________________ Date: __________________________

Asst. Superintendent, Curriculum & Instruction

Present a signed approved Data Release Authorization Form to Information Services upon request for data.

Note: Approval is granted for one year. If you wish to continue the project beyond one year, you must submit a Data Release Authorization request.

Revised: July 9, 2010
Akron Public Schools
Office of Testing, Research and Evaluation,
School Improvement, Room 110
Ott Staff Development Center
65 Steiner Avenue,
Akron, OH 44391-1392
(330) 761-3071; Fax (330) 761-3240

Please check all boxes that apply.

1. In compliance with federal and state law as researcher, it will be my responsibility to secure signed parental permission before administering any surveys/tests/etc. to Akron Public School students.

2. As a researcher, I guarantee that when using data, individuals will not be identified nor could be identified from the data. Personally identifiable data (i.e., student names, parent names, addresses, and phone numbers) will be made illegible before copies of records leave the Akron Public Schools, or the Office of Testing, Research & Evaluation, or the Information Services Department. These copies of records will be coded with a number, and once data is taken from these copies, they will be destroyed.

3. Data Release Authorization form has been completed.

4. Before taking audio/visuals of students, I will submit to the Office of Testing, Research and Evaluation, a copy of:
   - The parent notification
   - Building principal approval
   - University research advisor/professor approval (where applicable)

All audio/visuals will be given to the building principal for cataloging or destruction.

5. Upon completion of my study/research, I will provide the Office of Testing, Research and Evaluation with a copy of the final document.

   Researcher's Name: Elizabeth Fethrow
   (Please print)

   Researcher's Signature: [Signature]

   Date: 4/2/2012

Revised: July 9, 2010
PARTICIPANT'S RIGHTS

- Participation in research is voluntary. A participant may refuse to participate or withdraw from research at any time without jeopardy to future medical care, employment, student status or other entitlements.

- The researcher may withdraw a participant from the research at his/her professional discretion.

- If during the course of the study, significant new information that has been developed becomes available which may relate to a participant's willingness to continue to participate, the researcher will provide this information to the participant.

- Any information derived from the research project that personally identifies a participant will not be disclosed without a separate consent, except as specifically required by law.

- If at any time the participant has comments, questions, or concerns regarding the conduct of the research or questions about his/her rights as a research subject, he/she may contact the Office of Testing, Research, and Evaluation at 330-761-3071.

- Consent letters should include information on the Participant’s Rights.

- If audio/visuals are part of the research, the written, and audio/visual materials will be viewed only by the researcher and members of the research team.

My signature means that I agree to the stipulation of the Participant's Rights.

Researcher's Signature: [Signature]
Date: 4/1/2012

Researcher's Name: Elizabeth Fethrow
(Please print)

Revised: July 9, 2010
Proposal

Background/Statement of Problem

Purpose: The purpose of the present research investigation will be to examine the relationship between self-reported bullying behavior, perceived school connectedness, selected demographics, and academic achievement among female high school athletes. The following statement of the problem will identify the extent to which the study of these variables is warranted among school aged youth.

Background: The U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion (2010) offered this sentiment with regard to the potential of schools to affect the lives of youth and adolescents, “Schools have more influence on the lives of young people than any other social institution except the family and provide a setting in which friendship networks develop, socialization occurs, and norms that govern behavior are developed and reinforced.” Literature has identified that approximately one-third of students in secondary schools reported involvement in bullying. Given the substantial prevalence rate, secondary schools are in a unique position to confront issues related to bullying.

An emerging body of literature has confirmed that bullying can interfere with the ability of bullies and victims to be academically successful in school. In this context, bullying has been identified as a complex health concern, influenced by biological, social, cultural, psychological, behavioral, and environmental determinants. In addition, bullying affects students, schools, communities, and families. An abundant amount of literature on the topic has revealed consequences for the physical, emotional, and social health of both bullies and victims. Bullying affects the overall school climate and can exert a negative effect on a students’ sense of security and safety while at school. Because of this fear, students who are bullied are less likely to attend school, making it difficult to be academically successful.

Elizabeth Fettrow, M.A. CHES

Application to Conduct Research in Akron Public Schools
Bullying and the peer-group: A few studies have explored peer networks and bullying, finding that peer networks can influence bullying behavior among middle school students. In specific, students who identified with a peer group that bullied other students frequently were more likely to engage in this behavior. Other research studies have found that peer networks influence bullying behavior for both boys and girls.

The present investigation will seek to identify athletes' sense of connection to school. School connection can be defined as the extent to which students feel adults and peers in the school care about them and their learning. Students who participate in extracurricular activities, such as athletics, were found to have higher levels of school connection than students who did not participate in extracurricular activities. School connection has been identified as a protective factor, preventing adolescents from engaging in risk-taking behavior such as smoking and drinking alcohol. In addition, students who feel a sense of connection with adults and peers in the school setting were less likely to bully or be victimized by bullying. High levels of school connection have been shown to improve academic outcomes, as well.

In the 2010-2011 school year (SV), there were 3,173, 549 females who participated in interscholastic sports nationwide (National Federation of State High School Association (NFSHSA) Participation Survey, pg. 2). Given the substantial number of females who participate in interscholastic athletics, studying the variables of bullying and connectedness as it occurs among members of the same peer group can provide important information for schools in confronting and managing bullying.

Finally, examining the levels of self-reported bullying behavior and perceived school connection in context of educational achievement will make significant contributions to the body of literature on health and academic outcomes. Surprisingly, little to date has been done to explore these variables as they occur among in-season, female, high school athletes.

Elizabeth Fettrow, M.A. CHES

Application to Conduct Research in Akron Public Schools
Procedures

a. Level of school(s) to be used

Permission is being sought to access all high schools that comprise the Akron City Series Conference. In total, there are seven schools. These schools are as follows:

1. Buchtel
2. East
3. Ellet
4. Firestone
5. Garfield
6. Kenmore
7. North

b. Number of students, classes, teachers and/or others needed.

- Permission is being sought to access all female student athletes participating in softball and track/field.

- It is estimated that approximately 400-500 athletes will be used for the study. It is not certain at this time how many athletes participate on each team and in each building.

c. Methods of teaching, administering tests or other instruments, and general techniques for handling data.

Data will be collected one time from all female student athletes whose parents have granted permission to participate and for who willingly consent their own participation. Instruments will be contained in a sealed envelope when delivered to student athletes. In addition, completed instruments will be returned in the envelope with the signed participant consent form. When collected, both documents will be separated in to two piles and will be shuffled to assure that instruments and consent forms will not be at the same place in either pile. Once data collection has concluded, all completed documents will be transported to a secured, locked office, on the campus of Kent State University until the principal investigator enters these data to be analyzed.

Elizabeth Fettrow, M.A. CHES

Application to Conduct Research in Akron Public Schools
d. Realistic time commitment on part of staff.

Coaches of each team will be utilized for the following activities:

1. Providing an official roster to the principal investigator
2. Distribution and collection of the parent consent forms
3. Identification of a day/time for data collection
4. Deciding/acquiring a location for data collection

Coaches are being asked to communicate (electronically or by phone) with the principal investigator to complete the tasks listed in this section. As an approximation, coaches will need to commit time to meet with the principal investigator to go over the data collection protocol (10 minutes), distribute parent consent forms to athletes (5 minutes), and collect parent consent forms from athletes (will occur over the span of a few days). Coaches will not be present in the designated space during the time of data collection. No other time commitment on behalf of the coach will be utilized for this project.

e. Procedures for distribution and returning materials.

There are three pieces of information that the principal investigator will distribute and collect for the research project.

1. Parent Consent Form

The parent consent forms will be handed to coaches in the initial meeting with the principal investigator. Coaches will be asked to read a recruitment script and hand parent consent forms to athletes. In addition, coaches will be responsible for collecting parent consent forms. Signed parent consent forms will be picked up from the coaches by the principal investigator on the day/time decided by both parties.

2. Participant Consent Form

On the day of data collection, all athletes will meet with the principal investigator. Prior to that time, the principal investigator will have gone through the signed parent consent forms and will have identified athletes for who parents granted consent to participate. Athletes whose parents granted
consent will receive a participant consent form to sign. Participant consent forms will be collected from athletes and stored apart from the completed instruments.

3. Instrument
Data will be collected through a one-time anonymous survey. Participants’ completed instruments will be placed in the packet in which they were delivered and returned to the principal investigator when finished. The principal investigator will make sure the packet does not contain the participants name and will place the completed questionnaire in a pile separate from the signed participant consent form. Separating the questionnaire and consent forms will ensure that no signed consent form can be linked to a participants’ completed instrument.
Statement(s) identifying the Ohio Academic Content Standard(s) related to the research. (Career-Tech Content Standards)

According to the Ohio Department of Education (2007), “The Family and Consumer Sciences (FCS) Content Standards include sections on financial literacy, building relationships, nutrition, food safety, consumer strategies, child development and career blueprints. Mathematics, English language arts, science and social studies academic content standards are embedded in the FCS standards.” A link to these FCS content standards can be found by accessing:

http://education.ohio.gov/GD/Template/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=1697&ContentID=27030&Content=113915

Using the FCS content standards as a guide, the proposed research will provide important insight for instruction related to the FCS Standards #1, #2, #7, and #8. Listed in Table 1 are those specific benchmarks (including level) from the FCS competency chart:

<table>
<thead>
<tr>
<th>Standard #1: Advocate a Healthy Lifestyle</th>
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<tbody>
<tr>
<td>Benchmark A (Introductory, Intermediate, Advanced): Identify social and cultural factors that influence healthy lifestyle choices</td>
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</table>

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<tr>
<th>Standard #2: Build Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benchmark B (Introductory): Develop coping and personal resiliency skills</td>
</tr>
<tr>
<td>Benchmark A (Intermediate): Appraise methods that build and maintain healthy interpersonal relationships</td>
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</tbody>
</table>

<table>
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<tr>
<th>Standard #7: Manage a life plan</th>
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</thead>
<tbody>
<tr>
<td>Benchmark F (Introductory, Intermediate, Advanced): Recommend skills for resisting peer pressure and resolving conflict in interpersonal, educational, and workplace relationships</td>
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</table>

<table>
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<tr>
<th>Standard #8: Manage Personal Transitions</th>
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</thead>
<tbody>
<tr>
<td>Benchmark D (Introductory, Intermediate): Apply social skills that lead to effective school and family relationships</td>
</tr>
</tbody>
</table>

Elizabeth Fettrow, M.A. CHES Application to Conduct Research in Akron Public Schools
REFERENCES
REFERENCES


Adelman, H., & Taylor, L. (2011a). About mean girls as a youth culture subgroup School Mental Health Project, Department of Psychology, UCLA.


Assembly Education Committee Statement to Assembly, Bill No. 3466 with committee amendments. State of New Jersey. (Nov. 15th, 2010). Revise and supplement to the law on harassment, intimidation, and bullying in public schools.


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National Prevention Subcommittee on Comprehensive School Health Education. (2005). The American Cancer Society’s Approach to Youth Education. American Cancer Society, pp. 1-48/


Packer, J. (2007, December). The NEA supports substantial overhaul, not repeal, of NCLB. Phi Delta Kappan, 275-277


Press Release, Federal Partners Celebrate Anti-Bullying Efforts and Pledge to Continue Work at Second Annual Bullying Prevention Summit, September 2011,

Press Release, We Will Not Fail Our Children, September 2011,


   National Center for Education Statistics, Institute of Education Sciences, U.S.

   Department of Education. Washington, DC.

Soltz, D. F. (1986). Athletics and academic achievement: What is the relationship?

   *National Association for Secondary School Principals (NASSP) Bulletin*, 70(492),

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   *The High School Magazine*, 7(6), 36-39.


Retrieved from the National Center for Mental Health Promotion and Youth Violence Prevention website http://www.promoteprevent.org/resources/analysis-state-bullying-laws-and-policies


doi:10.1080/00098651003655902


The National Education Association. More about our position on NCLB. Retrieved from:

http://www.nea.org/home/1213.htm


