COMPARING BULLIES AND VICTIMS: WHO RESPONDS TO A UNIVERSAL INTERVENTION PROGRAM TO DECREASE BULLYING BEHAVIORS IN ELEMETRARY SCHOOLS?

by

GRETCHEN HUFF HUNTER

(Under the Direction of Linda Campbell)

ABSTRACT

This study was conducted using archived data collected during the 2003-2004 school year in four elementary schools in the Southeastern United States. The original project was entitled I-CARE (Interdisciplinary Curriculum for Aggression Reduction in Education) and was designed to evaluate the efficacy of a year-long, universal, psychoeducationally-based, teacher targeted group intervention (Bully Busters). Bully Busters is designed to reduce aggression and bullying in children by training all staff and students and by modifying the school environment. The present study examined which demographic and psychological variables predict responsiveness to the intervention. The student and teacher surveys were developed for the intervention and included subscales on the following topics: school problems, school connection, bullying behaviors, victimization, happiness, confidence in choosing nonviolent solutions, parental supervision, nutrition, knowledge of intervention material, teachers' expectations for positive behavior, teacher self efficacy, and teacher rating of student behaviors. Four hundred eleven elementary students completed the pre- and posttest measures, and ratings were obtained from 393 teachers to provide a behavioral description of each student. Overall, the intervention was

not effective in reducing student self-report of bullying and victimization. Conclusions and areas of further research are discussed.

INDEX WORDS: bullying, victimizations, school problems, school-based intervention

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DEDICATION

To Graham, for making all the stops along the way feel like home.

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Introduction

Statement of the Problem

The World Health Organization (WHO) (Krug, Mercy, Dahlberg, & Zwi, 2002) defines violence as: “The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in orhas a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation. Violence is not an intractable social problem or an inevitable part of the human condition. We can do much to address and prevent it. The world has not yet fully measured the size of the task and does not yet have all the tools to carry it out. But the global knowledge base is growing and much useful experience has already been gained which needs to be implemented”. This statement makes a powerful position statement regarding the problem of violence in our world.

Despite our growing knowledge of how to address and prevent violence, it continues to be perpetrated against and by our most vulnerable citizens, children and adolescents. The Youth at Risk Behavior Survey (Eaton, Kann, Kinchen, Shanklin, Ross, and Hawkins, 2007) indicates that youth are engaging in violent behavior at a high level. Specifically, 5.9 % had carried a gun on school property, 35.5% had been in a physical fight, and 12.4% had been in a physical fight on school property. Additionally, during 1993–2007, a significant linear increase occurred in the percentage of students who did not go to school because of safety concerns (4.4%–5.5%).

Previous research has identified the prevalence of bullying in the United States and across all countries and age/gender groups to range from <1% to 60% of students have reported being directly involved in some kind of bullying behavior or has been the target of the aggression

(Orpinas & Horne, 2006). In a nationwide survey of high school students, about 6% reported not going to school on one or more days in the 30 days preceding the survey because they felt unsafe at school or on their way to and from school. More than 780,000 young people ages 10 to 24 are treated in emergency departments each year for injuries sustained due to violence. On average, 16 persons between the ages of 10 and 24 are murdered each day in the United States (Eaton et al., 2007). In addition to causing injury and death, youth violence affects communities by increasing the cost of health care, reducing productivity, decreasing property values, and disrupting social services. Research supports that bullying is a universal phenomenon with many negative correlates for victims and bullies, but that there are cultural variations in the way that bullying is related to sex, age, and social support (Eslea, Menesini, Morita, O'Moore, Mora-Mercha, & Pereira, 2003).

Within the literature on bullying, the following themes for the problem of bullying are noted: boys are more likely than girls to be both the perpetrators and the victims of physical and verbal aggression, girls are more likely to be the victims of relational and sexual aggression. Bullying and aggression tend to increase in frequency from elementary school to middle school, generally peaking in the 6th grade (Orpinas & Horne, 2006). Cyber bullying or electronic bullying is a new frontier in this area. Findings indicate students' roles in traditional bullying predict the same role in electronic bullying (i.e. bullies maintain their role in both traditional and electronic relationships) (Raskauskas & Stoltz, 2007).

Research has revealed conflicting findings related to predicting bullying behavior later in life. Young children who engage in bullying behavior at an early age have been found to have different levels of continued aggressive behavior throughout adolescence and adulthood: consistent high levels, reduction to low or no behaviors as the youth matures, and consistent

moderate levels (Pepler, Jiang, Craig, & Connolly, 2008). Students who engage in bullying behaviors have been found to exhibit other behavior problems including hyperactivity, conduct problems, peer problems, and low pro-social behaviors (Wolke, Woods, Bloomfield, & Karstadt, 2000).

The consequences of victimization are well established and include: depression, low self-esteem, headaches and other somatic complaints, sleeping difficulties, increased fear for their safety, and suicide (Orpinas & Horne, 2006). More specifically, peer victimization has been found to be positively correlated with psychosocial maladjustment. Results of a meta-analysis from studies published between 1978 and 1997 indicated that peer victimization is most strongly related to depression, followed in descending order by loneliness, global self-esteem, social self-concept, social anxiety, generalized anxiety, and anxiety (both social and generalized) (Hawker & Boulton, 2000).

These consequences likely affect students' school performance in the areas of decreased attendance, concentration, and participation in school activities (Orpinas, Horne, & Staniszewski, 2003). Students may be reluctant to request aid from school staff for fear of reprisals and because of inadequate protection (Newman-Carlson & Horne, 2004). Recent literature has increased our understanding of the long-term consequences of relational victimization. Relational victimization has been found to be related to increased symptoms of depression and social anxiety in early adulthood. Additionally, neither gender nor perceived social support were found to protect against negative effects (Dempsey & Storch, 2008).

Students who witness bullying incidents, referred to as bystanders, can also be affected in ways that affect their functioning. Some bystanders may not have the skills or the knowledge to stop the bullying and may feel guilty for not doing anything to stop it. These children can also

experience fear and apprehension that they could be the next victim if they intervene. These bystanders may become secondary victims in the bullying process (Newman-Carlson & Horne, 2004).

Purpose of the Study

Bully Busters can be described as a universal school-based psychoeducational program to reduce aggression and bullying in children. Universal programs are designed to prevent violence from occurring by training all staff and students and by modifying the school environment. (Orpinas et al., 2003). These programs seek to reduce risk factors and increase protective factors with the purpose of minimizing the likelihood of the occurrence or reoccurrence of violence. Bully Busters, is predicated on the fact that aggression and bullying are behaviors borne of social skills deficits; and that the most effective means of reducing aggression and bullying behaviors in the school is through increasing the awareness, knowledge, and efficacy of teachers regarding how they deal with school based aggression and bullying (Newman-Carlson & Horne, 2004).

Effectiveness of the Bully Busters Intervention

Evaluations of the effectiveness of the Bully Busters intervention in particular have also had mixed results. Initial results demonstrated an impact on teacher skills, knowledge and self-efficacy for managing school bullying (Newman-Carlson & Horne, 2004). Recent results indicate positive change for increasing teacher self-efficacy, no change for teacher's perceptions of change in classroom or school climate, and no change for students' perceptions of change in classroom or school climate (Bell, 2007).

However, the findings from this author's previous work indicate that Bully Busters is effective in meeting the majority of its goals. Students that participated in qualitative interviews were able to display the following: knowledge and specific skills presented during the

intervention, positive change in school and classroom climate, increased confidence about how to handle bullying in their own lives, increase in student awareness of the impact and consequences of bullying, changes in "attitude" and behaviors, decrease in the incidence of bullying over the school year, and increase in empathy for victims and a desire to help victims in the future (Hunter, 2007)

Additionally, and important theme that emerged from the data was the importance of understanding issues of multiculturalism and gender differences in bullying. Students described different dynamics of power and allegiance based on ethnic or racial identification. They discussed the complex nature of forming alliances based on interests and activities as well as by demographic factors (e.g. neighborhood). They also addressed the importance of understanding the relationship between country of orgin, language, and culture. All of the female students addressed gender differences in bullying during their interviews, but only one male student included this topic in his interview. The female participants described the "deep hurt" that girls can inflict by name calling or spreading rumors. They also discussed feeling powerless to stop relational bullying when they witnessed it, guilty because they could not intervene. This finding indicates that the issue of gender differences in bullying is not as salient for male students as for female students (Hunter, 2007).

These findings highlight the mixed results that researchers are encountering when attempting to implement effective interventions. To address these inconsistencies, the field is moving toward a different type of analysis that focuses on how interventions might have been effective/ineffective for some students rather than overall measures of effectiveness. It is recommended that the research questions shift from "Are our programs effective?" to "What works and what does not for whom and under what conditions?" Additionally, recommendations

for future research include assessing both statistical and clinical significance. Studies that have only main effects of prevention programs with null or negative findings might be masking positive effects for some students. Variables need to be examined that might predict better outcomes for some students: developmental timing, low resource versus high resource schools, neighborhood characteristics, and pre-level bullying (Espelage, 2008). current study seeks to follow this new trend of investigation into the specific variables that predict intervention success.

Specifically, this study attempted to determine the efficacy of a year-long psychoeducationally-based, teacher-targeted group intervention conducted at several elementary schools in the Southeastern United States. The present study examined the following research question:

Research Question:

Which demographic and psychological variables differentiate bullies and victims who respond to a universal bullying intervention from those who do not respond to a universal bullying intervention?

Hypotheses

Intervention Effectiveness

Null Hypothesis 1: There is not a significant decrease in bullying behaviors during the course of the intervention.

Null Hypothesis 2: There is not a significant decrease in report of in victimization during the course of the intervention.

Null hypothesis 3: There are no significant relationships between demographic variables and bullying and victimization.

Bullying behavior

Null hypothesis 4: Demographic variables do not predict change in bullying behavior at pretest, posttest, or between the two test periods.

Null hypothesis 5: Psychological variables do not predict change in bullying behavior at pretest, posttest, or between the two test periods.

Victimization

Null hypothesis 6: Demographic variables do not predict change in victimization at pretest, posttest, or between the two test periods.

Null hypothesis 7: Psychological variables do not predict change in victimization at pretest, posttest, or between the two test periods.

Other predictors

Null hypothesis 8: Quality of breakfast foods do not predict change in bullying or victimization behavior at pretest, posttest, or between the two test periods.

Null hypothesis 9: Knowledge of effective bully reduction skills are not related to psychological variables and do not predict change in bullying behavior at posttest.

Null hypothesis 10: Positive contact with others is not related to psychological variables.

Null hypothesis 11: Positive contact with others and intervention knowledge do not impact the amount of bullying or victimization reported at posttest.

Teacher Rating Scale

Null hypothesis 12: Teacher-rated positive behaviors are not related to psychological variables and does not predict positive behaviors

Null hypothesis 13: Teacher self-efficacy does not predict the amount of knowledge students learn from the intervention at posttest.

Definitions

Interpersonal violence: "Interpersonal violence is defined as 'the intentional use of physical force or power, threatened or actual, against another person or against a group or community that results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation" (Dahlberg and Krug, 2002). This definition associates intent with committing the act and does not include a relationship to the outcome. In other words, intent to use force does not necessarily mean intent to cause damage. Indeed, there may be a considerable disparity between intended behavior and intended consequence. A perpetrator may commit a seemingly dangerous act that will likely result in adverse health effects, but the perpetrator may not perceive it as such. For example, a youth may get in a physical fight with another youth. The use of a fist against the head or the use of a weapon in the dispute certainly increases the risk of serious injury or death, though neither outcome may be intended. Other aspects of violence are implied in this definition. For example, it includes all acts of violence, whether public or private, reactive (in response to previous events such as provocation), proactive (instrumental for or anticipating more self-serving outcomes), or criminal or noncriminal" (Dahlberg & Krug, 2002).

Bullying: Various researchers have developed several definitions of bullying. One states "A student is bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students... [Bullying] is a negative action when someone intentionally inflicts or attempts to inflict, injury or discomfort on another, (Olweus, 1994, p. 1173).

Bullying can be defined for this study as a subset of aggression that is characterized by the "PIC" (purposeful, imbalanced, and continual) criteria. The bully is more powerful than the victim and commits aggressive behaviors intentionally and repeatedly over time. Bullying differs from rough and tumble play because 1) one child purposely inflicts harm on another student, 2) children use their full physical strength to cause harm, 3) children do not regroup after an incident to engage in more play, and 4) students do not choose their roles or engage in role reversal (e.g., good guy-bad guy) because they consistently use stable roles (e.g., victim and bully). Students may harm each other accidentally while enthusiastically engaged in play, but this would not meet the criteria for bullying. Another component for the definition of bullying is an imbalance of power. This imbalance can include physical strength, abilities, or influence. Bullying is not a one-time incident. Bullying interactions are carried out continually, over time. Bullying also differs from deliquent criminal behavior (e.g, use of weapons, serious threats, sexual abuse, major physical harm, theft, or property damage), {Horne, 2003 #14}.

There have been several forms of bullying that have been identified in the literature. Physical bullying is action oriented in includes any type of behavior that intentionally inflicts bodily harm (e.g., hitting, pushing, punching, kicking). Emotional bullying is word or verbally oriented and includes using words to humiliate or hurt the victim (e.g., name-calling, teasing, racial slurs, insults). Relational bullying is peer oriented and includes peer exclusion and rejection through rumors, lies, embarrassment, and manipulation. This type of bullying is closely associated with emotional bullying. Bystander victimization involves students who watch the bullying occur but do not feel they have the power to confront the bully or fear that they may be the bully's next target (Horne, 2003).

There are also several types of bullies that have been identified. The aggressive bully is the most common type of bully who initiates aggression toward peers. These bullies can be characterized as fearless, coercive, tough, and impulsive, and may openly attack victims and enjoy having control over others. They may often see the victim's behavior as provocative regardless of the victim's intentions. Common behaviors of the aggressive bully include: pushing, hitting, threatening serious harm, stealing lunches, money or materials, and trapping victims in hallways or bathrooms.

The passive bully is less common than the aggressive bully and can be insecure and anxious. Passive bullies seek attention and acceptance of the aggressive bully and is likely to join in the bullying if he or she sees bullying is rewarded. Behaviors of the passive bully include: being present and supporting the aggressive bully's actions, copying aggressive actions, using indirect methods to bully others, such as social exclusion and name-calling.

The relational bully is the most common type of bully among females and is effective in girls' social groups. Relational bullies often attempt to gain social status and power through the exclusion of others or by intentionally isolating peers from social activities and events. Common behaviors include: spreading rumors or lies about a peer, attempting to get others to dislike the peer by telling stories, excluding others from social activities on the playground, at the lunch table, or during after-school events, or threatening not to be friends with a peer unless the peer does what the bully wants.

Victimization: Victims are defined in the current study as children who may be characterized as anxious, sensitive, quiet, and insecure. They tend to have few friends, are isolated from their peers, and other students perceive them as physically weak. These children may cry frequently,

have difficulty handling conflicts independently, and are over-protected by individuals at home and in school.

There are several types of victims relevant to the current study. Passive victims try to avoid conflict by staying out of harm's way. These are the most frequent type of victims and they tend to: feel abandoned and isolated by others, feel nervous, anxious and insecure, and be cautious, sensitive, and quiet. These victims may lack physical skills in comparison to bullies, have low self-esteem, and limited friends. These children may display emotional outbursts (e.g., crying) in response to fear of being bullied.

Provocative victims may set out deliberately to provoke the bully and are characterized as more active, assertive, and confident than passive victims. These students may display distracting behaviors that provoke others, or try to gain attention from classmates in a variety of ways. These victims may associate with bullies to increase their social status and receive positive reinforcement from bullies.

Relational victims are characterized by being excluded from groups or ignored by peers. Relational victims are usually not threatened or abused, are excluded from peer social activities, and may be hurt by indirect aggression in the form of social manipulation. These victims may be overlooked because the nature of the bullying is indirect.

Emotional intelligence: emotional abilities that contribute to a person's interpersonal success. The basic characteristics of emotional intelligence include: knowing one's emotions, managing one's emotions, motivating oneself, recognizing emotions in others, and handling relationships.

Chapter 2

Review of Related Research

Recommendations for Prevention Programs

The World Health Organization identified several recommendations related to youth violence in its World Report on Violence and Health including promoting primary prevention responses including social development programmes for children and adolescents (Dahlberg & Krug, 2002). Additionally, effective prevention programs should involve the following characteristics: comprehensive; various instructional methods; sufficient dosage or intensity to effect change; based upon theory; positive interpersonal relationships; appropriate for participants developmental level and culture; sound training for staff; and meaningful program evaluation, (Nation et al., 2003).

The Best Practices of Youth Violence Prevention: A Sourcebook for Community Action also delineates recommendations for youth violence prevention programs. One recommendation includes targeted interventions for young children (10 years and younger). The rationale for choosing this population includes focusing on the fact that "violence is a learned behavior. Therefore, early experiences and skills play key role in the development of violent behavior. Because a person's or nonviolent tendencies may be set in early childhood, preschool-and elementary school-age children are often thought to be ideal participants in interventions that promote nonviolent values and enhance conflict-resolution skills", (Thornton, Craft, Dahlberg, Lynch, & Baer, 2002).

One growing issue in the area of prevention is the idea of providing culturally relevant programs. Reese and Vera (2007) have outlined several ways to respond to the needs of a given

community and simultaneously employ accepted and expected research methods. One method is cultural tailoring of existing prevention programs to increase community investment, recruitment, and retention. Another method is utilizing concepts related to social justice in prevention by expanding use of scientific methods (e.g., ethnographic, cohort studies, etc.) that may be more consistent with cultural norms of how to implement and adopt something new (e.g., skills, processes, etc.).

This issue is complicated by research that indicates that universal programs have the ability to be effective for both White students and students of color regardless of culturally relevant design. Service programs have shown positive overall intervention effects with ethnic minority respondents on their delinquent behavior, school participation, peer relations, academic achievement, behavior problems, psychological adjustment, and attitudes (Wilson, Lipsey, & Haluk, 2003).

Recommendations for Research Methodology

The Center for the Study and Prevention of Violence (CSPV) reviews and recommends selection criteria for evidence-based violence prevention programs. The selection criteria take into account the methodological difficulties that researchers face when attempting to design school-based interventions. One main difficulty that is outlined refers to the fact that entire schools are the unit of analysis and typically designs would require multiple schools per condition to perform a main effects analysis with sufficient power to detect effects. This would result in costly interventions and would exclude many school-based interventions from consideration in determining intervention effectiveness. Additionally, criteria for robust interventions should include: well developed theoretical rationale, evaluation of theory with

evidence that the results are consistently in line with the expectations, demonstration of moderate effect sizes, and evidence that the benefits of the program outweigh the costs. (2008) Additionally, the CSPV outlined several other research problems that should be addressed. These include determining 1) whether the characteristics of the programs, or perhaps of the settings in which they are implemented, differentiate those programs that are more effective from those that are less effective; 2) whether school programs are equally effective and cost effective for high and low-risk children, and in high- and low-risk environments; and 3) how to address cultural and social differences in diverse populations to improve program implementation effectiveness" (2008).

Researchers have used different research designs to address methodological issues inherent in school-based interventions. Dan Olweus, a founder of this area of research, has outlined the use of 'extended selection cohorts' quasi-experimental design in situations where it is not possible or desirable to use a random selection of control schools (Olweus, 2005).

The format of providing school-based interventions should include the idea of using of a "train the trainers" model. This strategy increases the power of the message because the leaders are drawn from the population that will be served, and therefore, provides increased relevance for the group. Leaders are able to understand concerns that group members face, and adjust the group format to fit the values and styles of the group. Also, maintenance of the intervention is increased because the leaders remain in the setting as point people and resources (Waldo & Schwartz, 2008).

Bullying Prevention Programs

There are a variety of bully prevention programs that have been developed and these programs were described in a recent article (Horne et al, 2007). The Bully Busters program's

primary focus is to increase awareness of the prevalence of bullying and develop skills necessary for both teachers and students to address the problems related to bullying that are present in their schools. The Bully Proofing program is a school-wide bully reduction program with additional materials that are available for parents that provide information on effective parenting. Target Bullying: Ecologically-based prevention and intervention for schools is an outcome based program in which administrators collect baseline data and use it to make intervention decisions based on available resources within the school and community.

The I Can Problem Solve (ICPS) program focuses on assisting teachers in the development of strategies for peer mediation. The Life Skills Training (LST) program facilitates development of social skills, prevention of violence, substance and other high-risk behaviors by encouraging the students to develop awareness about their own inter- and intrapersonal responsibilities and objectives. The Promoting Alternative Thinking Strategies (PATHS) program focuses on reducing aggression and other externalizing behaviors while developing healthy and adaptive ways of interacting with others.

The Linking the Interests of Families and Teachers (LIFTS) program focuses on parenting, playground, and classroom areas and facilitates the development of social skills or parenting skills. The Responding in Peaceful and Positive Ways (RIPP) program teaches violence prevention using behavioral and cognitive strategies and encourages students to apply critical thinking skills to solve problems and manage their behavior.

Effectiveness of Intervention Programs

Intervention programs to reduce youth violence are prolific, multifaceted, and have been investigated to determine their effectiveness in a variety of ways. Recommendations for violence prevention programs include: interventions have an appropriate developmental focus to increase

effectiveness; interventions with multiple components (child and adult training) result in superior outcomes; a range of treatment modalities, such as individual and group formats, are identified as evidence-based; treatment integrity should be maintained by following treatment manual guidelines, and interventions should match the applications of the treatment to family cultural preferences, parent personality styles, child developmental levels, and other individual differences (Eyeberg, Nelson, & Boggs, 2008).

Olweus (Olweus & Limber, 2002) has identified several important components of bullying prevention programs. Schools should communicate with all major stakeholders to increase awareness and support of any proposed prevention program. An initial measurement of the problem of bullying is important to determine the extent and specific needs of the school. All stakeholders need to come together to receive initial orientation and training before separating into smaller groups where they will continue to receive training and support. A central coordinator must be identified to provide supervision and support for the teachers during program implementation. The program should have both classroom and family components to increase generalization of skills acquired.

Large scale studies to determine the effectiveness of universal school-based interventions have found mixed results. One study prepared by the Task Force on Community Preventive Services found that these programs decrease rates of violence and aggressive behavior among school-aged children at all grade levels (Hahn et al., 2007). One study that included 300 published violence prevention programs from 1993-1997, found that less than a quarter of these programs report outcome data showing that they reduce or prevent violence. All of the interventions involved classroom-based curricula; about one-third included efforts to change the broader school environment or other settings where youth spend their time. Modest intervention

effects in knowledge, attitudes, and aggressive, violent, and prosocial behavior were reported. Elementary school interventions and programs focusing on the broader school environment appeared more successful in changing violence-related behavior. (Howard, Flora, & Griffin, 1999).

Bully Busters can be described as a universal school-based psychoeducational program to reduce aggression and bullying in children. Universal programs are designed to prevent violence from occurring by training all staff and students and by modifying the school environment. (Orpinas et al., 2003). These programs seek to reduce risk factors and increase protective factors with the purpose of minimizing the likelihood of the occurrence or reoccurrence of violence.

Bully Busters, is predicated on the fact that aggression and bullying are behaviors borne of social skills deficits; and that the most effective means of reducing aggression and bullying behaviors in the school is through increasing the awareness, knowledge, and efficacy of teachers regarding how they deal with school based aggression and bullying (Newman-Carlson & Horne, 2004).

Theoretical Perspectives

Behavioral Perspective

Bully Busters draws on several theoretical models related to creating behavioral change in students' level of bullying behavior**.** A primary perspective of the model is that violence is a learned behavior. The values, attitudes, and interpersonal skills acquired early in life play a key role in the development of violent behavior. Therefore, the intervention is designed to provide guidance and experiences to young children to address problem behaviors before they become more significant (Thornton et al., 2002).

When working with children in school settings it is important to try to prevent problems rather than address problem behaviors after they have appeared. The program increases teacher self-efficacy and effectiveness by providing training in antecedents, behaviors, consequences, and recommendations for how to address problem behaviors while maintaining a solution-focused perspective.

Social-Cognitive Perspective

The intervention also incorporates a social-cognitive perspective. Social-cognitive interventions are designed to teach children with the skills they need to deal effectively with difficult social situations. This is based on Bandura's social-cognitive theory, which posits that children learn social skills by observing and interacting with parents, adult relatives and friends, teachers, peers, and others in the environment, including media role models (Bandura, 1986). Activities such as didactic teaching, modeling, and role-playing to enhance positive social interactions, teach nonviolent methods for resolving conflict, and establish or strengthen nonviolent beliefs are included in the manual (Thornton et al., 2002).

Developmental Perspective

The purpose of the Bully Busters program is to promote the healthy development of children in order to prevent future problems relating to bullying and other forms of aggression. The intervention incorporates both a developmental perspective and a focus on emotional intelligence into the design. Emotional intelligence is defined as emotional abilities that contribute to a person's interpersonal success. The basic characteristics of emotional intelligence include: knowing one's emotions, managing one's emotions, motivating oneself, recognizing emotions in others, and handling relationships. The Bully Busters program includes activities

that build on each characteristic and provide psychoeducational information on identification and practice of emotional intelligence skills.

The program also has an emphasis on developmental assets for elementary-age children. Examples include: family support, caring neighborhood, parent involvement, positive family communication, safety, community values and service to others, adult role models, family boundaries, positive peer influence and interaction, creative activities, religious community, positive supervised time at home, engagement in learning, reading for pleasure, positive values of honesty and responsibility, equality and social justice, healthy lifestyle and sexual attitudes, planning and decision making, cultural competence, peaceful conflict resolution, self-esteem, and sense of purpose.

The Bully-Development Model

The Bully Busters intervention includes a specific model for understanding how bullying behaviors develop based on a review of the literature in this area.

Figure 1

The Bully-Development Model

Culture

↓

Community

↓

Family Demographics

↓ ↓

Child's Personality Traits **Disrupted Family Management**

↓

Weak Conventional Bonding

CHILD

Hostile Parent/Child Interaction **Inconsistent Parenting**

↓

Temperament

↓

Cognitive Ability

↓

Bullying Behaviors

↓

↓ ↓

Reinforced By Peers **Ignored/Sanctioned by Teachers**

Risk and protective factors

Risk factors for youth violence are included in Table 1.

Table 1

Risk Factors for Youth Violence

Individual	history of violent victimization attention deficits hyperactivity or learning disorders history of early aggressive behavior involvement with drugs, alcohol or tobacco low IQ poor behavioral control deficits in social cognitive or information-processing abilities high emotional distress history of treatment for emotional problems antisocial beliefs and attitudes exposure to violence and conflict in the family
Family	authoritarian childrearing attitudes harsh, lax or inconsistent disciplinary practices low parental involvement low emotional attachment to parents or caregivers low parental education and income parental substance abuse or criminality poor family functioning poor monitoring and supervision of children
Peer/School	association with delinquent peers involvement in gangs social rejection by peers lack of involvement in conventional activities poor academic performance low commitment to school and school failure
Community	diminished economic opportunities high concentrations of poor residents high level of transiency high level of family disruption low levels of community participation socially disorganized neighborhoods

Protective factors for youth violence are included in Table 2.

Table 2

Protective Factors for Youth Violence

Individual/Family	intolerant attitude toward deviance high IQ high grade point average positive social orientation religiosity connectedness to family or adults outside the family ability to discuss problems with parents perceived parental expectations about school performance are high frequent shared activities with parents consistent presence of parent during at least one of the following: when awakening, when arriving home from school, at evening mealtime or going to bed involvement in social activities
Peer/School	commitment to school involvement in social activities

Gender

Gender has been strongly related to differences in bullying and victimization. Boys enjoy playtimes more and have more friends, but are also more likely to spend playtimes alone (Eslea et al., 2003). Boys have been found to be more involved in pro-bullying behaviors than girls, and girls have higher rates of both defending the victim and withdrawing from the bullying situation than boys (Salmivalli & Voete, 2004).

Additionally, gender has been found to interact with poverty, behavioral problems, emotional problems, and social competence as a predictor of peer victimization and receipt of prosocial acts. Girls have been shown to have significant decreases in peer victimization relative to boys, and girls in schools with high levels of student poverty were at greater risk for increases in victimization (Dhami, Hoglund, Leadbeater, & Boone, 2005).

Race/Ethnicity

Much of the literature in the area of bullying has included majority White samples with less representative understanding of bullying and victimization in minority students. Research that has been conducted with African American students indicates that overall incidence rates of bullying is lower than with White samples, but that gender differences were similar to previous studies. Also, findings suggest a relative lack of gender differences related to aggression and increased integration of bullies into larger social network (Estell, Farmer, & Cairns, 2007). Another study found the following incidence rates in African American and Hispanic adolescents: bullies (7%), victims (12%), bully-victims (5%), or neither (76%). Gender differences were not observed tor general bullying and victimization, but physical and some verbal types were more prevalent among males (Flescher Peskin, Tortolero, & Markham, 2006). Students are significantly more likely to be reported to have bullied same-race students rather than race students (1995).

Additionally, parental communication, social isolation, and classmate relationships were similarly related to bullying across racial/ethnic groups. Living with two biological parents was protective against bullying involvement for White students only. Furthermore, although school satisfaction and performance were negatively associated with bullying involvement for White and Hispanic students, school factors were largely unrelated to bullying among Black students (Spriggs, Iannotti, Nansel, & Haynie, 2007).

Individual Factors

Several individual social-emotional factors have been found to contribute to bullying behavior. Aggressiveness, isolation, and dislikability (Veenstra, Lindenberg, Oldehinkel, De

Winter, & Verhulst, 2005), intense anger and retaliatory motivation (Champion & Clay, 2007), low levels of empathic responsiveness (Gini, Albiero, Benelli, & Altoe`, 2007).

Students' perception of bully behavior is related to the acceptability of engaging in aggressive behaviors. Students report that the most common reason individuals are bullied is that they have a different appearance. Those who bully suffer from low self-esteem. Bullies desist in engaging in aggressive behaviors once they mature and victims can make bullying stop by standing up for themselves (Frisen, Jonsson, & Persson, 2007).

Family

Family dysfunction has been indicated in numerous studies as a risk factor for bullying behavior. Bullies tend to report: low family support (Perren & Hornung, 2005), high utilization physical discipline by parents (Espelage, Bosworth, & Simon, 2000), chaotic family environments with high levels of psychiatric and legal problems, low levels of physical affection from parents, exposure to violence in the home, experiences of being bullied by a parent or family member. (Smith, Twemlow, & Hoover, 1999). Children who experience maltreatment in the form of physical or sexual abuse (Shields & Cicchetti, 2001), conventional crime and witnessing or indirect victimization (Holt, Finkelhor, & Kaufman Kantor, 2007) are also at higher risk for developing bullying behaviors.

Family attitudes about violence have been shown to be related to bullying behavior. Specifically, the likelihood of bullying was significantly reduced for those students who reported spending time with adults, and specifically with adults who suggest nonviolent strategies to manage conflicts (Espelage et al., 2000).

School

"Children who are bullied at school are likely to obtain low levels of achievement, particularly if they show little conscientiousness and enjoyment of school, and if their parents provide little support for their children's education" (Beran, Hughes, & Lupart, 2008).

Peer Support

Peer support appears to moderate the psychological consequences of bullying and victimization including reduced anxiety and depression (Holt & Espelage, 2007).

Television Exposure

The influence of media violence on youth includes both short and long terms consequences. "Short term exposure increases the likelihood of physically and verbally aggressive behavior, aggressive thoughts, and aggressive emotions. Media violence produces long-term effects via several types of learning processes leading to the acquisition of lasting and automatically accessible aggressive scripts, interpretational schemas, and aggression-supporting beliefs about social behavior, and by reducing individuals' normal negative emotional responses to violence (i.e., desensitization)" (Anderson et al., 2003).

Nutrition

The relationship between nutrition and behavior problems in children has been studied in low-income children. Results show that unreliable food sources with low nutritional value are positively associated with externalizing behavior problems for the older children even after controlling for parental stress, warmth, and depression (Slack & Yoo, 2005).
Longitudinal studies have found that children with malnutrition signs at age 3 years were more aggressive or hyperactive at age 8 years, had more externalizing problems at age 11, and had greater conduct disorder and excessive motor activity at age 17. The results were independent of

psychosocial adversity and were not moderated by gender (Liu, Raine, Venables, & Mednick, 2004).

Pilot Study

In this author's previous work the following themes were noted as reasons that students would choose a violent solution when faced with a bullying situation: mistrust that adult intervention would be effective, fear of being labeled a "snitch or a weasel", and fear of parental punishment if they did not react in a physically violent manner. Participants also discussed the importance of their parents expectations and behaviors on their decisions on how to react to bullying incidents. Students reported that parents gave them messages surrounding the importance of "standing up for yourself", and encouraging physical aggression as an appropriate response to bullying. One student reported that "my dad told me if somebody hits me to hit them back" and indicated that if his father learned that he did not defend himself in a physical way then he would be punished at home for his behavior. Several students expressed reluctance to tell their parents if they were being bullied for fear of the expected reaction. This reluctance to seek assistance from parents for fear of their negative reaction was present in several students discussions of how they decide to deal with bullying, and highlights the impact that parental values and expectations have on students behavior (Hunter, 2007).

Chapter 3

Method

The purpose of the present study was to examine the efficacy of a year-long psychoeducationally-based, teacher-targeted group intervention conducted at several elementary schools in the Southeastern United States to determine which demographic and psychological variables differentiate bullies and victims who respond to a universal bullying intervention from those who do not respond to a universal bullying intervention.

Participants

Four hundred eleven elementary students participated in the study by completing the pre- and posttest measure. Regarding the two grades included in this study, 202 (49%) were fourth graders and 209 (or 51%) were fifth graders.

With respect to ethnic and racial identification in the student-participant sample, 59% reported African American ethnicity, 16% Hispanic, 14% European American, 5% Other Race, 4% Asian, and 1% Mixed Race; 50% were female. Student-participants ranged in age from 8 to 12, with the mean age of 9.8, and a median age of 10. Demographic information for the student-participant sample is provided in Table 3.

The Department of Education provides information related to the demographics of the schools included in the project that is outlined in Table 4. Racial categories are defined as: 1) Asian, Pacific Islander; A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes for example, China, India, Japan, Korea, the Philippine Islands, 2) Black, not of Hispanic origin; A person having origins in any of the black racial groups of Africa, 3) Hispanic; A person of Mexican,

Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race, 4) American Indian/Alaskan Native; A person having origins in any of the original peoples of North American and who maintains cultural identification through tribal affiliation or community recognition, 5) Multi-racial; A person having parents of different races, 6) White, not of Hispanic origin; A person having origins in any of the original peoples of Europe, North Africa, or the Middle East.

Table 3

Demographic Characteristics of the Student-Participant Sample

Demographic Variable	Category	# of participants	Percentage of Total
Gender	Female Male	201 210	48 51
Age	8 9 10 11 12	3 136 203 64 5	.7 33 49 16 1
Race	African American White Hispanic Asian Other Mixed	248 56 65 15 21 5	60 14 16 4 5 1
Grade	4^{th} 5^{th}	202 209	49 51
School	1 2 3 4	110 89 93 119	27 21 22 29
Academic Performance	A's and B's B's and C's C's and F's	291 79 35	70 21 9

Table 4

Demographic Characteristics of Schools, Students(2003-2004 school year)

Location	Race	%	% F&R eligibility
State	African American Hispanic White Asian Multi-Racial American Indian	38 7 51 3 2 .2	46
County	African American Hispanic White Asian Multi-Racial American Indian	56 14 25 3 3 .1	65
School 1	African American Hispanic White Asian Multi-Racial American Indian	65 12 16 4 3 0	78
School 2	African American Hispanic White Asian Multi-Racial American Indian	49 8 34 6 3 .2	62
School 3	African American Hispanic White Asian Multi-Racial American Indian	68 28 2 0 2 0	94
School 4	African American Hispanic White Asian Multi-Racial American Indian	63 29 6 .2 2 .2	93

Ratings were obtained from 393 teachers to provide a behavioral rating of each of the students in their class. No demographic data was collected for the teacher-participant sample. Demographic information obtained from the county district website is provided in Table 5.

Table 5

Demographic Characteristics of Schools, Teachers (2004-2005 school year, earliest reported)

Location	Gender	%	Race	%	Average Years Experience
State	Male Female	19 81	African American White Other race	21 77 2	12.5
County	Male Female	21 79	African American White Other race	18 79 3	12
School 1	Male Female	10 90	African American White	20 80	13
School 2	Male Female	15 85	African American White Other race	10 85 5	14
School 3	Male Female	6 94	African American White Other race	11 83 6	9
School 4	Male Female	8 92	African American White Other race	22 76 2	11

Procedure

The study was conducted using archived data collected during the 2003-2004 school year in four elementary schools. The project was entitled I-CARE (Interdisciplinary Curriculum for Aggression Reduction in Education), funded by the Arthur Blank Foundation and conducted by co-principal investigators Pamela Orpinas, Ph.D. and Arthur (Andy) Horne, Ph.D.

A quasi-experimental pre-test/post-test design was used to collect data from the student-participants. This group consisted of elementary school students enrolled in the participating schools during the 2003-2004 school year. Teachers participated in monthly teacher support groups led by the principal investigators that focused on facilitating understanding of the Bully Buster's implementation manual and providing support for creating change in their school and classrooms. Additional data was gathered from the teachers at the end of the school year in the form of a behavior rating scale completed for each student.

Description of the Treatment Program

Bully Busters: A Teacher's Manual for Helping Bullies, Victims, and Bystanders Grades K-5 (Horne, Bartolomucci, & Newman-Carlson, 2003) the treatment program implemented in the present study. This bully prevention program (referred to as Bully Busters) was developed by incorporating from the research literature those aspects of training and intervention that appeared to have the most support. This psychoeducational program was designed to facilitate the teachers' acquisition of skills, techniques, and intervention and prevention strategies specifically related to problems of bullying and victimization, as well as to enhance teachers' self-efficacy for confronting bullying and victimization in the classroom. The program was implemented in the form of several staff development training workshops.

The contents of the program included information pertaining to bullying and victimization, recommended interventions, prevention strategies, stress-management techniques, as well as classroom activities. The training program was a composite of seven modules, each focusing on specific goals:

Module One: <u>Increasing Awareness of Bullying</u>

- Bullying in Elementary Schools
- Definitions of Bullying
- Common Bullying Locations

- Role of Teachers

Module Two: Preventing Bullying in Your Classroom
- Prevention in the Classroom
- Prevention at the School Level
- Teacher Characteristics
- Building Good Relationships with Tough Kids
- Establishing and Enforcing Classroom Rules
- Addressing Classroom Conflict

Module Three: Building Personal Power
- What is Personal Power?
- Anger Management
- Conflict Resolution
- Building Connections: The Power of Relationships

Module Four: Recognizing the Bully
- The Aggressive versus the Well-Adapted Child
- The Development of Bullying Behaviors
- The Bully-Development Model
- Factors Associated with Bullying Behaviors
- Types of Bullies

Module Five: Recognizing the Victim
- Defining Victimization
- Myths about Victimization
- Recognizing Victims and Victimization
- Impact of Victimization
- Where does Victimization Take Place
- Types of Victims
- Understanding the Victim Role

Module Six: Recommendations and Interventions for Bullying Behavior
- Establishing a Working Relationship with Bullies
- The Four Rs of Bully Control
- Roles in the Bully-Victim Interaction
- Developmental Skills for Bullies
- Reputation for Changing

Module Seven: Recommendations and Interventions for Helping Victims
- Victim Support
- Empowering Victims to Take a Different Role
- Interventions for Different Types of Victims
- Victim Responses to Bullying

Module Eight: Relaxation and Coping Skills

- The Importance of Self-Care
- Stress Awareness
- Applying the Big Questions
- General Recommendations for Managing Stress
-

Each teacher was provided with a manual containing the seven workshop modules, including classroom activities and worksheets for each module. The instructional manual served as an educational guide as well as a classroom curriculum resource (Newman-Carlson & Horne, 2004).

Teachers participating in the study attended three separate staff development training sessions, which began 2 weeks after the start of the school year. The training sessions convened once a week, over the course of 3 weeks, for a period of 2 hours per meeting. Each workshop followed the same instructional format combining both a didactic and experiential approach. In an effort to integrate the workshop materials into the teachers' curriculum, after each workshop, teachers were instructed to share with their students what they had learned in the workshop by using this knowledge in class activities. Upon completion of the psychoeducational workshops, each team met with the instructor for 1 hour, every other week, for 8 weeks. The supervision/team meetings served as an ongoing resource for classroom teachers to (a) share their success or failure stories, (b) seek advice from other teachers and the supervisor, (c) obtain additional classroom activities, (d) dispel fears and feel supported, and (e) develop collaborative problem-solving skills. To ensure the integrity of the bully prevention program, the instructor adhered to the training curriculum presented in the Bully Busters manual, and program integrity was maintained through weekly supervision of the instructor by the primary supervisor for the workshops and subsequent Bully Busters support team meetings, as well as through completing checklists of the requisite activities.

Instrumentation

The majority of the literature in this area has used various quantitative research methodology to evaluate the effectiveness of these interventions. These methods include: self-report, peer nominations, teacher nominations, and behavioral observations. Self-report is often the preferred method of assessment for research purposes. A common function of self-report bullying scales involves asking students directly (anonymously) how often they engaged in certain behaviors over a specified time, and similar victims scales are also utilized.

The intervention effectiveness was evaluated using the student survey developed for the I-CARE project. This survey included a demographics section and several scales that address a variety of student perceptions and behaviors related to the intervention, see Appendix 1 and 2. Additionally, data was collected from teachers regarding the social competencies and behaviors of the students in their class, see Appendix 3.

Student Survey

School Problems

T he School Problems scale consists of 8 items (4-point Likert) and is designed to measure dangerous activities in the school such as gangs, fighting, destruction of school property, and bullying at school. Reliability coefficients are provided in Table 5.

School Connection

The School Connection scale consists of 8 items (5-point Likert) and is designed to measure the participant's level of connectedness to the school and includes items related to relationships with teachers and friends.

Victim

The Victim scale consists of 6 items (7-point Likert) and is designed to measure the participant's reported frequency and type of victimization experienced during the previous seven days.

Bully

The Bully scale consists of 6 items (7-point Likert) and is designed to measure the participant's reported frequency and type of bullying behavior perpetrated during the previous seven days.

Happiness

The Happiness scale consists of 5 items (5-point Likert) and is designed to measure the reported positive mood of the student.

Confidence

The Confidence scale consists of 7 items (5-point Likert) and is designed to measure the participant's reported confidence in their ability to choose a nonviolent solution if confronted with a bullying situation.

Parent Supervision

The Parent Supervision scale consists of 2 items (5-point Likert) and is designed to measure the participant's reported level of parental supervision.

Unhealthy scale

The Unhealthy scale consists of 10 items and was included in the pretest survey only to determine the quality of foods participants reported eating for breakfast on a typical school day.

Healthy scale

The Healthy scale consists of 11 items and that was included in the pretest survey only to determine the quality of foods participants reported eating for breakfast on a typical school day.

Knowledge scale

The Knowledge scale consists of 9 items and is designed to measure the participant's reported knowledge about information presented during the Bully Busters intervention. This scale was included in the posttest for participants to determine the impact of the intervention.

Positive Contact Initiated by Others scale

The Positive Contact Initiated by Others scale consists of 9 items and is designed to measure the participant's reported experience of having positive contacts initiated by others during the past seven days. This scale was included in the posttest for participants to determine the impact of the intervention.

Positive Contact Initiated by Self scale

The Positive Contact Initiated by Self scale consists of 9 items and is designed to measure the participant's reported experience of initiating positive contacts with others during the past seven days. This scale was included in the posttest for participants to determine the impact of the intervention.

Table 6

Scale reliability (Student)

Scale Name	Pre (α)	Post (α)	Test-Retest (*r)*
School Problems	.82	.83	.47
School Connection	.70	.83	.54
Victim	.85	.89	.54
Bully	.85	.86	.47
Happiness	.66	.70	
Confidence	.81	.83	.45

Parent Supervision	.75	.79	.48
Unhealthy	.85	na	na
Healthy	.82	na	na
Knowledge (total)	na	.75	na
Knowledge (facts)	na	.68	na
Knowledge (skills)	na	.73	na
Positive Contact Initiated by Others	na	.93	na
Positive Contact Initiated by Self	na	.94	na

Positive Expectations for Student scale

The Positive Expectations for Student scale consists of 5 items (5-point Likert) and is designed to measure the participant's reported expectations that the student will be successful in their class. The internal consistency reliability coefficient, utilizing Crohnbach's alpha was found to be .96.

Teacher Self-Efficacy scale

The Teacher Self-Efficacy scale consists of 8 items (5-point Likert) and is designed to measure the participant's reported expectations that the student will be successful in their class. The internal consistency reliability coefficient, utilizing Crohnbach's alpha was found to be .97.

Positive Student Behaviors scale

The Positive Student Behaviors scale consists of 8 items (5-point Likert) and is designed to measure a range of positive student behaviors including cooperation, friendliness, patience, and emotional control. The internal consistency reliability coefficient, utilizing Crohnbach's alpha was found to be .99. Reliability for each Teacher scale is provided in Table 7.

Table 7

Scale reliability (Teacher)

Scale	Pre (α)
Positive Expectations for Student	0.96
Teacher Self-Efficacy	0.97
Positive Student Behaviors	0.99

Research Design

A quasi-experimental pretest–posttest design was implemented. Prior to the initial commencement of the Bully Busters psychoeducational treatment program, all participants, students and teachers signed an informed consent agreement and completed a demographic information questionnaire. Additionally, all participants completed the prettest questionnaire two weeks prior to the implementation of the bully prevention intervention. Subsequent to the completion of the pretest assessments, teachers participated in the Bully Busters program 1 day per week for 3 consecutive weeks. For the following 8 weeks, the teacher group members participated in bimonthly Bully Busters support team and supervision meetings. After completion of the Bully Busters program and supervision/team meetings, both teachers and students completed the post assessment measures.

Statistical Methods

Intervention effectiveness was analyzed using paired samples t-tests. Independent variables are identified as demographic information including age, sex, race, school and grade. Dependent variables are scores on both the Bully and Victim scales. Relationships between demographic and dependent variables were tested using mixed model ANOVAs.

Bivariate correlations and regression analyses were utilized to determine predictive significance of demographic variables and psychological variables on self-reported rates of

aggression and victimization behavior as estimated response to treatment. Predictor variables are included in Table 8.

Table 8

Predictor Variables, Labels, and Values for Bivariate Correlations and Regression Analyses

Predictor Variable	Label	Value
Race	African American All Other Races	1 0
Year in School	4th 5th	0 1
Sex	Girls Boys	0 1
Age	Continuous Variable	higher = older lower = younger
Grades	Continuous Variable	higher = better grades lower = lower grades
Bully scale	Continuous Variable	higher = more bullying lower = less bullying
Victim scale	Continuous variable	higher = more victimization
School Problems scale	Continuous Variable	higher = more problems
School Connection scale	Continuous Variable	higher = more connected
Happiness scale	Continuous Variable	higher = more happiness
Confidence scale	Continuous Variable	higher = more confidence
Parental Supervision scale	Continuous Variable	higher = more supervision

Bivariate correlations and regression analyses were utilized to determine predictive significance of demographic variables and psychological variables on self-reported rates of other student scales (e.g., contact with others, knowledge of intervention skills, and nutrition) as estimated response to treatment. Predictor variables are included in Table 9.

Table 9

Predictor Variables, Labels, and Values for Other Variables for Bivariate Correlations and Regression Analyses

Predictor Variable	Label	Value
Healthy breakfast	Continuous variable	higher = more healthy
Unhealthy breakfast	Continuous variable	higher = more unhealthy
Bully knowledge-skills	Continuous variable	higher = more skills
Bully knowledge-facts	Continuous variable	higher = more facts
Positive contact self-initiated	Continuous variable	higher = more contact
Positive contact other-initiated	Continuous variable	higher = more contact

Bivariate correlations and regression analyses were utilized to determine predictive significance of teacher rating scales as estimated response to treatment. Predictor variables are included in Table 10.

Table 10

Predictor Variables, Labels, and Values for Bivariate Correlations and Regression Analyses for Teacher Scales

Predictor Variable	Label	Value
Positive Student Behaviors	Continuous variable	higher = more positive
Teacher Self-Efficacy	Continuous variable	higher = more efficacy
Positive Expectations	Continuous variable	higher = more expectations

Limitations

1) The scope of this study was limited to the fourth and fifth-grade teachers and their students at four suburban public elementary schools in the Southeastern United States of America.

2) The teachers participated in the study as a means to fulfill their continuing education credit requirement. Thus, generalization of these findings to populations of teachers whose participation is voluntary or uncompensated is questionable.

3) There was no formal oversight to insure that the teachers were utilizing the bully reduction intervention explicitly (i.e., delivering the in-class activities which were provided to them for their students), or implicitly (i.e., intervening with students in an appropriate way when they witness bullying incidents).

Chapter 4

Results

The present study was designed to explore which variables predict responsiveness to a universal bullying intervention. Changes in these variables were measured utilizing the following hypotheses. This chapter contains the results of the data analyses, as they pertain to the hypotheses.

Research Question:

Which demographic and psychological variables differentiate bullies and victims who respond to a universal bullying intervention from those who do not respond to a universal bullying intervention?

Intervention Effectiveness

Means and standard deviations are provided of all variables from pretest and post-test in Table 11.

Table 11

Means and Standard Deviations of all variables from Pretest and Post-test

	Pretest		Post-test	
	M	SD	M	SD
Age	9.82	.73	10.24	.76
Grades	83.02	6.76	82.57	6.79
School Problems	1.05	.74	1.08	.71
School Connectedness	1.71	.30	2.47	.55
Victim	1.43	1.47	1.62	1.67
Bully	.69	1.04	.91	1.19
Confidence	3.18	.82	3.19	.82

Happy	1.80	.31	4.5	.60
Parent Supervision	4.46	.88	4.5	.80
Unhealthy	1.09	1.74	--	--
Healthy (No Bread)	4.17	2.77	--	--
Healthy (With Bread)	.26	.58	--	--
Bully Knowledge (Total)	--	--	2.59	.41
Bully Knowledge (Skills)	--	--	2.68	.43
Bully Knowledge (Facts)	--	--	2.40	.63
PCI (Other)	--	--	3.94	1.73
PCI (Self)	--	--	4.25	1.60
Positive Behavior	--	--	2.90	1.11
Positive Experience	--	--	3.28	.96
Teacher Self Efficacy	--	--	3.59	.73

Note: PCI = Positive Contact Initiated. Positive Behavior, Positive Experience, Teacher Self-Efficacy are the teacher rated variables.

Null Hypothesis 1: There is not a significant decrease in bullying behaviors during the course of the intervention. This hypothesis was tested using a paired samples t-test. The pretest distribution yielded a mean of .69 and a standard deviation of 1.04. The posttest distribution yielded a mean of .91 and standard deviation of 1.19. These results were analyzed using a paired samples *t* test to determine in scores on the Bully scale were significantly different between pretest and posttest. The reported bullying behavior on pretest and posttest (M = -.20, SD = 1.16) were significantly different (t =-3.396, p = .001). These data are presented in Table 11. Students reported more bullying behavior after one year of the intervention project, and therefore the analysis failed to reject null hypothesis 1.

Table 12

Means, Standard Deviation Values, and Paired Samples t-test Results of the Differences Between the Pre-Test and Post-Test as Measured by the Bully scale

	N	M	SD	t	p
Pre-Test	375	.69	1.04		
Posttest	376	.91	1.19		
Pretest and Posttest		-.20	1.16	-3.40	.001

Null Hypothesis 2: There was not a significant decrease in report of in victimization during the course of the intervention. This hypothesis was tested using a paired samples t-test. The pretest distribution yielded a mean of 1.43 and a standard deviation of 1.47. The posttest distribution yielded a mean of .1.63 and standard deviation of 1.67. These results were analyzed using a paired samples *t* test to determine in scores on the Victim scale were significantly different between pretest and posttest. The reported bullying behavior on pretest and posttest (M = -.18, SD = 1.52) were significant (t =-2.2, p = .025). These data are presented in Table 12. Students reported more victimization after one year of the intervention, and therefore the analysis failed to reject null hypothesis 2.

Table 13

Means, Standard Deviation Values, and Paired Samples t-test Results of the Differences Between the Pre-Test and Post-Test as Measured by the Victim scale

	N	M	SD	t	p
Pre-Test	375	1.43	1.47		
Posttest	376	1.63	1.67		
Pretest and Posttest		-.18	1.52	-2.2	.025

Null hypothesis 3: There are no significant relationships between demographic variables and bullying and victimization. This hypothesis was tested using mixed model ANOVAs.

Table 14

Means for Bullying and Victimization as a function of race, gender, and time

	African American				Other Races			
	Male		Female		Male		Female	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
Bully	1.03	1.30	.74	.90	.46	.76	.37	.42
Victim	1.71	1.77	1.53	1.71	1.34	1.74	1.00	1.15

Note: African Americans reported significantly more bullying than other racial groups. Additionally, the majority of the sample is made up of African American students (N = 223). Therefore, a dichotomous "African American vs. all other races" will be used as a defining demographic variable.

There was no significant interaction between bullying and race ($F(1,368) = .14$, $p = .708$) or bullying and gender ($F(1, 368) = 2.11$, $p = .148$). Thus, examining the means we can see that African Americans reported more bullying than other races at the pretest (.88 vs. .42) and were also more at posttest (1.10 vs. .58). In addition the magnitude of the difference between African Americans and other races at pretest and posttest were not significantly different (e.g no significant interaction). Examining the means for gender, we can see that males reported more bullying than females at pretest (.81 vs. .59) and at posttest (1.09 vs. .71). As such, the magnitude of the difference between boys and girls at pretest vs. posttest was not significantly different from each other. Finally, there was no three-way interaction ($F(1, 368) = .39$, $p = .53$). The differences between African American males, other race males, African American females, and other race females did not differ between pretest and posttest.

Between subjects factors were examined to further understand the relationship between demographic variables and bullying behavior. There was a main effect of Race ($F(1, 368) = 25.64$, $p < .01$) and a main effect of Gender ($F(1, 368) = 8.61$, $p < .01$). Thus, overall African Americans reported more bullying behavior (.993) than other races (.506) and males (.891)

reported more bullying behavior than females (.609). Examining the raw means we can see that African Americans reported more bullying behavior at both pretest and posttest and males reported more bullying behavior than females and both pretest and posttest. Finally there was no interaction between gender and race ($F(1, 368) = .46$, $p = .497$. Thus, the effect of race on bullying behavior was the same at different levels of gender, and the effect of gender on bullying behavior was the same at different levels of race.

A similar 2 x 2 x 2 mixed model ANOVA was constructed to understand the relationships between demographic variables and victimization. This analysis revealed that victimization was significantly different between the pretest and the posttest (e.g., victimization increased over time). There was no interaction between race and victimization ($F(1, 368) = .872$, $p = .35$). Thus, the differences between African Americans and other races at pretest was not significantly different than the differences between African Americans and other races at posttest. Examining the means we can see that African Americans reported more victimization than other races at pretest (1.62 vs. 1.16) and they also reported more victimization at post-test (1.74 vs. 1.42).

There was also no interaction between gender and victimization ($F(1, 368) = .164$, $p = .686$). The difference between males and females in terms of victimization at pretest was not significantly different than the difference between males and females at posttest. Examining the means we see that boys reported more victimization at pretest than girls (1.57 vs. 1.32) and also more victimization at posttest than girls (1.76 vs. 1.48). Finally, there was no interaction between race and gender and victimization $F(1, 368) = 1.22$, $p = .269$).

Between subjects factors were examined to further understand the relationship between demographic variables and victimization. There is a significant effect of Race on victimization $F(1, 368) = 6.743$, $p < .05$). On average, African Americans (1.681) reported more victimization

than other races (1.307). There was also a significant effect of gender on victimization $F(1, 368) = 4.113$, $p = .043$) with males (1.641) reporting more victimization than females (1.348) overall. There was no interaction between race and gender $F(1, 368) = 1.46$, $p = .227$). Thus, victimization was not different between different sub categories of race and gender. As this analysis indicates, there were significant relationships between dependent and demographic variables and null hypothesis 3 was rejected.

Bullying behavior

Null hypothesis 4: Demographic variables do not predict change in bullying behavior at pretest, posttest, or between the two test periods. This hypothesis was tested using bivariate correlations and regression models.

Table 15

Bivariate Correlations Between Demographic and Bully Variables Between Test Periods

Variable 1	Variable 2	Correlation	p
Race	Bully_Pre	.219	.000
Race	Bully_Post	.218	.000
Year in School	Age	.669	.000
Sex	Grades	-.103	.047
Sex	Bully_Pre	.110	.034
Sex	Bully_Post	.175	.001
Grades	Bully_Pre	-.110	.035
Grades	Bully_Post	-.113	.030
Bully_Pre	Bully_Post	.463	.000

The pretest regression $F(5, 359) = 5.149$, $p < .001$ and accounted for 7% of the variance in bully behavior ($R^2 = .07$). Race was a strong positive predictor of bullying at pretest ($\beta = .21$, $p < .001$). African American students report significantly more bullying behavior at pretest than other race students. Self-reported grades were a near significant predictor of bullying behavior ($\beta = -.10$, $p = .058$). This was a negative association, so higher grades are associated with less

bullying behavior. Finally, gender was also marginally significant (β = .09, p = .090). This was a positive relation, thus males reported engaging in more bullying behavior than females.

The postest regression was also significant: $F(5, 360) = 7.189$, $p < .001$ and accounted for 9% of the variance in future bullying behavior (R^2 = .09). Race was a significant positive predictor (β = .22, $p < .001$), with African Americans reporting significantly more future bullying behavior than other race students. Gender was also a positive predictor (β = .16, $p < .01$) with males reporting more engagement in bullying behavior at postest than females. Finally, grades were a marginally significant negative predictor (β = -.09, p = .072), better grades were associated with less bullying behavior at postest. As this analysis indicates, there were significant relationships between dependent and demographic variables and null hypothesis 4 was rejected.

Null hypothesis 5: Psychological variables do not predict change in bullying behavior at pretest, posttest, or between the two test periods. This hypothesis was tested using bivariate correlations and regression models. Significant bivariate correlations between all variables are shown in Table 16.

Table 16

Bivariate Correlations Between Psychological and Bully Variables

Variable 1	Variable 2	Correlation	p
Bully_Pre	Bully_Post	.463	.000
Bully_Pre	School Problems_Pre	.201	.000
Bully_Pre	School Connection_Pre	-.218	.000
Bully_Pre	Happy_Pre	-.215	.000
Bully_Pre	Confidence_Pre	-.416	.000
Bully_Pre	Supervision_Pre	-.114	.029
Bully_Post	School Problems_Pre	.229	.000
Bully_Post	School Connection_Pre	-.204	.000
Bully_Post	Happy_Pre	-.214	.000
Bully_Post	Confidence_Pre	-.278	.000
School Problems_Pre	School Connection_Pre	-.351	.000
School Problems_Pre	Happy_Pre	-.260	.000
School Problems_Pre	Confidence_Pre	-.190	.000

School Connection_Pre	Happy_Pre	.698	.000
School Connection_Pre	Confidence_Pre	.409	.000
Happy_Pre	Confidence_Pre	.405	.000
Confidence_Pre	ParentSupervision_Pre	.147	.005

More school problems is associated with more bullying. More school connectedness, happiness, and confidence is associated with less bullying. Parental supervision is somewhat associated with bullying, but is in expected direction: more supervision, less bullying.

Table 17

Regression Model Predictors for Bully Scale and Psychological Variables

Regression Model Predictors	Dependent Variable	Coefficients	ß	R^2	Sig.
Bully_Pre Parental Supervision_Pre School Problems_Pre Confidence_Pre School Connectedness_Pre	Bully_Post	--	--	.262	.000
Bully_Pre	Bully_Post	--	0.52	.214	.000
Parental Supervision_Pre School Problems_Pre Confidence_Pre School Connectedness_Pre	Bully_Post	--	--	.120	.000
		School Problems_Pre	.256	--	.003
		Confidence_Pre	-.320	--	.000
Confidence_Pre	Bully_Pre	--	-0.52	.173	.000
Bully_Pre	Confidence_Pre		-.331	.173	.000
Bully_Pre	School Connectedness_Pre		.064	.047	.000

Note: The Happy variable was not included in either regression model due to problems with collinearity (r=.405) with the Confidence scale, and decreased reliability (.66).

Two total regression models were examined to understand the relationship between psychological variables and bullying behavior. The first regression included pretest levels of bullying and was significant $F(5, 359) = 25.080$, $p < .001$ and accounted for 26% of the variance

in bully behavior change (R^2= .26). However, this model did not have any significant predictors of bullying behavior change over time. When the relationship between Bully_Pre and Bully_Post was examined the regression was significant $F(1, 371) = 101.174$, $p < .001$ and accounted for 21% of the variance in bully behavior change ($R^2 = .21$). Therefore, the Bully_Pre variable is estimated to account for a large amount of the variance in bully behavior change and was removed from the model. The second total regression model removed pretest levels of bullying and was also significant $F(4, 362) = 12.191$, $p < .001$ and accounted for 12% of the variance in bully behavior change (R^2=.12). The model had two significant predictors: School Problems (ß = .256) and Confidence (ß = -.320).

The relationships between other psychological variables and bullying behavior were also examined using individual regression models. Confidence was a negative predictor of bullying at pretest (ß = -.523), as was bullying was a negative predictor of confidence (ß = -.331), and bullying at pretest was a positive predictor of school connectedness (ß = .064). As this analysis indicates, there were significant relationships between psychological and dependent variables and null hypothesis 5 was rejected.

Victimization

Null hypothesis 6: Demographic variables do not predict change in victimization at pretest, posttest, or between the two test periods. This hypothesis was tested using bivariate correlations and regression models. Significant bivariate correlations are presented in Table 18.

Table 18

Bivariate Correlations Between Demographic and Victim Variables

Variable 1	Variable 2	Correlation	p
Victim_Pre	Victim_Post	.533	.000
Victim_Pre	Race	.157	.002
Sex	Grades	-.103	.047

Year in School	Age	.669	.000

The pretest regression was significant $F(6, 356) = 50.953$, $p < .001$ and accounted for 3% of the variance in victimization behavior change ($R^2 = .03$). Race was the only significant positive predictor of victimization (ß = .442). The posttest regression was also significant $F(4, 361) = 3.606$, $p < .007$ and accounted for 4% of the variance in victimization behavior change over time ($R^2 = .04$). Race was once again a positive predictor ($\beta = .355$), with African American students reporting more victimization. Grade was a negative predictor ($\beta = -.386$) indicating that 4th graders reported more victimization than 5th graders. Finally, gender was marginally significant ($\beta = .340$, $p = .051$), with males reporting more future victimization than females. As this analysis indicates, there were significant predictors of victimization behavior over time and null hypothesis 6 was rejected.

Null hypothesis 7: Psychological variables do not predict change in victimization at pretest, posttest, or between the two test periods. This hypothesis was tested using bivariate correlations regression models. Significant bivariate correlations between psychological and victim variables are found in Table 19.

Table 19

Bivariate Correlations Between Psychological Predictors and Victim Variable

Variable 1	Variable 2	Correlation	p
Victim_Pre	Victim_Post	.533	.000
Victim_Pre	SchoolProb_Pre	.313	.000
Victim_Pre	SchoolConnect_Pre	-.369	.000
Victim_Pre	Happy_Pre	-.349	.000
Victim_Pre	Confidence_Pre	-.252	.000
Victim_Pre	ParSuper_Pre	-.137	.008
Victim_Post	SchoolProb_Pre	.194	.000
Victim_Post	SchoolConnect_Pre	-.305	.000
Victim_Post	Happy_Pre	-.371	.000

Victim_Post	Confidence_Pre	-.236	.000
Victim_Post	ParSuper_Pre	-.125	.016
SchoolProb_Pre	SchoolConnect_Pre	-.351	.000
SchoolProb_Pre	Happy_Pre	-.260	.000
SchoolProb_Pre	Confidence_Pre	-.190	.000
SchoolConnect_Pre	Happy_Pre	.698	.000
SchoolConnect_Pre	Confidence_Pre	.409	.000
SchoolConnect_Pre	PareSuper_Pre	.112	.032
Happy_Pre	Confidence_Pre	.405	.000
Confidence_Pre	ParSuper_Pre	.147	.005

Table 20

Regression Model Predictors for Victim Scale and Psychological Variables

Regression Model Predictors	Dependent Variable	Coefficients	ß	R^2	Sig.
Victim_Pre Parental Supervision_Pre School Problems_Pre Confidence_Pre School Connectedness_Pre	Victim_Post			.305	.000
		School Connectedness_Pre	-.629		.034
Parental Supervision_Pre School Problems_Pre Confidence_Pre School Connectedness_Pre	Victim_Post	--	--	.127	.000
		School Connectedness_Pre	-1.323	--	.000
		Confidence_Pre	-.240		.030
School Problems_Pre	Victim_Post		.438	.038	.000
Confidence_Pre	Victim_Post		-.478	.056	.000
School Connectedness_Pre	Victim_Post	--	-1.706	.093	.000
Victim_Pre	Confidence_Pre		-.141	.063	.000
Victim_Pre	School Connectedness_Pre		-.076	.136	.000

Note: The Happy variable was not included in either regression model due to problems with collinearity (r=.405) with the Confidence scale, and decreased reliability (.66).

Two total regression models were examined to understand the relationship between psychological variables and victimization. The first regression included pretest levels of victimization and was significant $F(5, 354) = 31.127$, $p < .001$ and accounted for 31% of the variance in bully behavior change ($R^2 = .31$). School connectedness the only significant predictor in this model (ß = -.629). The second total regression model removed pretest levels of victimization and was also significant $F(4, 358) = 13.023$, $p < .001$ and accounted for 13% of the variance in victimization ($R^2 = .13$). The model had two significant predictors: school connectedness (ß = -1.323) and confidence (ß = -.240). Therefore, including victimization at pretest masks the contribution of the confidence variable in the model.

The relationships between other psychological variables and victimization were also examined using individual regression models. School problems at pretest was a positive predictor of victimization at postest (ß = .438), confidence at pretest was a negative predictor of victimization at postest (ß = -.478), and school connectedness at pretest was a negative predictor of victimization at postest (ß = -1.706). Additionally, victimization at pretest was a negative predictor of confidence (ß = -.141) and school connectedness at pretest (ß = -.076). As this analysis indicates, there were significant predictors of victimization behavior over time and null hypothesis 6 was rejected.

Other predictors

Null hypothesis 8: Quality of breakfast foods do not predict change in bullying or victimization behavior at pretest, posttest, or between the two test periods. This hypothesis was tested using regression models. The pretest bullying regression was significant $F(2, 369) = 4.106$, $p < .001$ but accounted for only 2% of the variance in victimization change ($R^2 = .02$). Unhealthy breakfast was a positive predictor indicating that more unhealthy foods was associated with more

engagement in bullying behavior. Healthy breakfast was a negative predictor, or more healthy foods were associated with less engagement in bullying behavior.

The posttest bullying regression was significant $F(2, 370)= 9.853$, $p <.001$ but accounted for only 4% of the variance in victimization change ($R^2 = .04$). Only unhealthy breakfast was a significant predictor and was positively associated with future bullying behavior. The residual change bullying regression was significant $F(3, 366)= 41.585$, $p <.001$ and accounted for .25% of the variance in victimization change ($R^2 = .25$). Unhealthy breakfast was a positive predictor of change in bullying behavior, or the more students reported eating an unhealthy breakfast the more likely they were to have an increase in bullying behavior over time.

The pretest victimization regression was not significant $F(2, 369)= .366$, $p >.05$ and did not account for any of the variance in victimization change ($R^2 = .001$). The posttest victimization regression was not significant $F(2, 370)= .730$, $p >.05$ and did not account for any of the variance in victimization change ($R^2 = .001$). Breakfast does not have any impact on whether a student reports being victimized. As this analysis indicates, there were significant predictors of bullying behavior and victimization behavior over time and null hypothesis 8 was rejected.

Null hypothesis 9: Knowledge of effective bully reduction skills and facts are not related to psychological variables and do not predict change in skills at posttest. This hypothesis was tested using bivariate correlations and regression models. Significant bivariate correlations are presented in Table 21.

Table 21

Bivariate Correlations Between Psychological Variables at Pretest and Knowledge of Effective Bully Reduction Skills at Posttest

Variable 1	Variable 2	Correlation	p
BullyKnow_Post	SchoolProb_Pre	-0.11	0.04
BullyKnow_Post	SchoolConnect_Pre	0.22	.000
BullyKnow_Post	Happy_Pre	0.2	.000
BullyKnow_Post	Confidence_Pre	0.32	0.01
BullyKnow_Post	ParSuper_Pre	0.13	.000
SchoolProb_Pre	SchoolConnect_Pre	-0.35	.008
SchoolProb_Pre	Happy_Pre	-0.26	.000
SchoolProb_Pre	Confidence_Pre	-0.19	.000
SchoolConnect_Pre	Happy_Pre	0.7	.000
SchoolConnect_Pre	Confidence_Pre	0.41	.000
SchoolConnect_Pre	ParSuper_Pre	0.11	0.03
Happy_Pre	Confidence_Pre	0.41	.000
Confidence_Pre	ParSuper_Pre	0.15	0.01

All the psychological variables at pretest were correlated with knowledge at posttest. More school connectedness, happiness, confidence, and parental supervision were all associated with knowledge, and more school problems were associated with less knowledge. The regression was significant $F(5, 351) = 7.31$, $p < .001$) and accounted for 9% of the variance in bully knowledge (skills and facts). Confidence was the only significant predictor ($\beta = .17$, $p < .01$) indicating that students with higher confidence at the start of the intervention had more bully knowledge at the end of the intervention.

The knowledge scale is divided into two parts: 1) skills taught during the intervention to effective manage bullying behavior, and 2) specific information about the construct of bullying (e.g., definitions). To further examine the issue of knowledge, two more regressions were run. For both regressions, the same psychological variables were entered as predictors; however, one regression predicted the skills subscale and the other the facts subscale. The facts regression was not significant overall, nor were any specific variables significant predictors of facts about

bullying.

The skills regression was significant $F(5, 351) = 9.80$, $p < .001$) and accounted for 12% of the variance in the skills subscale. Confidence was the only significant predictor ($\beta = .26$, $p < .01$). This moderately strong positive predictor indicated that, on average, students with high confidence at the start of the intervention reported higher scores on the skills subscale of the bully knowledge measure. Confidence is an important predictor of bully knowledge. This is what we learned from the first regression. However, to say this is to misrepresent the data. As our factor analysis indicated bully knowledge (at least in this study) is composed of two separate factors: skills and facts. Confidence is a strong predictor of skills; however nothing predicted facts.

Null hypothesis 10: Positive contact with others is not related to psychological variables. This hypothesis was tested using bivariate correlations and regression models. Significant bivariate correlations are presented in Table 22 and 23.

Table 22

Bivariate Correlations Between Psychological Variables at Posttest and Positive Self-Initiated Contact with Others at Posttest

Variable 1	Variable 2	Correlation	p
PCI_Self_Post	SchoolProb_Post	-0.11	0.04
PCI_Self_Post	Confidence_Post	0.17	0.01
PCI_Self_Post	ParSuper_Post	0.2	.000
SchoolProb_Post	SchoolConnect_Post	-0.3	0
SchoolProb_Post	Happy_Post	-0.23	.000
SchoolProb_Post	Confidence_Post	-0.22	0
SchoolProb_Post	ParSuper_Post	-0.18	.000
SchoolConnect_Post	Happy_Post	0.67	0.03
SchoolConnect_Post	Confidence_Post	0.38	.000
Happy_Post	Confidence_Post	0.38	0

School problems were negatively correlated with PCI_self ($r = .11$, $p < .05$) indicating that more school problems is associated with less PCI_self. Confidence ($r = .17$, $p < .01$) and parental

supervision (r = .20, p < .001) were both positively correlated with PCI_self. The regression was significant $F(5, 354)$= 11.284, p <.001 and accounted for 6%of the variance in knowledge change (R^2 = .06). Parental supervision was a small to moderate positive predictor of PCI_self.

Table 23

Bivariate Correlations Between Psychological Variables and Positive Other-Initiated Contact with Others at Posttest

Variable 1	Variable 2	Correlation	p
PCI_Other_Post	SchoolProb_Post	-0.16	.003
PCI_Other_Post	SchoolConnect_Post	0.24	.000
PCI_Other_Post	Happy_Post	0.23	.000
PCI_Other_Post	Confidence_Post	0.12	.030
PCI_Other_Post	ParSuper_Post	0.15	0
SchoolProb_Post	SchoolConnect_Post	-0.3	0
SchoolProb_Post	Happy_Post	-0.23	.000
SchoolProb_Post	Confidence_Post	-0.22	0
SchoolProb_Post	ParSuper_Post	-0.18	0
SchoolConnect_Post	Happy_Post	0.67	0
SchoolConnect_Post	Confidence_Post	0.38	.000
Happy_Post	Confidence_Post	0.38	0
Confidence_Post	ParSuper_Post	0.28	0

School problems were negatively correlated with PCI_other (r = .16, p <.01). School connection (r = .24, p < .001), confidence (r = .11, p < .05), happiness (r = .23, p < .001) and parental supervision (r = .15, p < .01) were positively correlated with PCI_other. The regression was significant $F(5, 354)$= 21.503, p <.001 and accounted for 10%of the variance in knowledge change (R^2 = .10). School connectedness, happiness, and parental supervision were positive predictors of PCI_other.

Null hypothesis 12: Positive contact with others and intervention knowledge do not impact the amount of bullying or victimization reported at posttest. This hypothesis will be tested using bivariate correlations and regression models. Significant bivariate correlations are presented in Table 24.

Table 24

Bivariate Correlations Between Positive Contact with Others, Knowledge, and Bully and Victim Behavior at Posttest

Variable 1	Variable 2	Correlation	p
Bully_Post	BullyKnowSkills_Post	-0.21	0
Victim_Post	BullyKnowSkills_Post	-0.19	0
BullyKnowSkills_Post	BullyKnowFacts_Post	0.3	.000
BullyKnowSkills_Post	PCI_self_Post	0.29	0
BullyKnowSkills_Post	PCI_other_Post	0.27	0
BullyKnowFacts_Post	PCI_other_Post	0.16	0
PCI_self_Post	PCI_other_Post	0.76	.000

Skills knowledge is negatively correlated to both bully behavior (r = -.21, p < .001) and victimization (r = -.19, p < .001). More skills knowledge is associated with less bullying behavior and less victimization. The regression was significant (F(4, 359) = 7.38, p < .001) and accounted for 8% of the variance in bully behavior at the end of the intervention. There were two significant predictors. Bully skills was a strong negative predictor of bullying behavior (β = -.28). Thus, students that reported more knowledge about bully skills were less likely to report engaging in bullying behavior. PCI_other was a moderately strong positive predictor of bullying behavior (β = .18). Thus, students that reported more PCI_other were also more likely to report engaging in bullying behavior.

Another regression model was constructed to understand the relationship to victimization. regression was also significant F(4, 359) = 9.54, p < .001) and accounted for 10% of the variance in victimization. There were three significant predictors. Bully skills (β = -.25, p < .001) and PCI_other (β = -.28, p < .001) were both negative predictors of victimization. Thus, students that reported high bully skills and high PCI_other were associated with low victimization. PCI_self was a positive predictor of victimization (β = .36, p < .001). Students that reported high amounts of PCI_self were associated with high amounts of victimization. Positive contact

with others and intervention knowledge does impact the amount of bullying or victimization reported at posttest, therefore null hypothesis 12 was rejected.

Teacher Rating Scale

Null hypothesis 13: Teacher-rated positive behaviors are not related to psychological variables and do not predict positive behaviors. This hypothesis will be tested using bivariate correlations and regression models. Significant bivariate correlations are presented in Table 25.

Table 25

Bivariate Correlations Between Positive Behaviors and Psychological Variables

Variable 1	Variable 2	Correlation	p
PositiveBeh	SchoolProb_Pre	-0.13	0.02
PositiveBeh	SchoolConnect_Pre	0.2	0
PositiveBeh	Happy_Pre	0.1	0.05
PositiveBeh	Confidence_Pre	0.11	0.03
PositiveBeh	ParSuper_Pre	0.1	0.06
SchoolProb_Pre	SchoolConnect_Pre	-0.35	0
SchoolProb_Pre	Happy_Pre	-0.26	0
SchoolProb_Pre	Confidence_Pre	-0.19	0
SchoolConnect_Pre	Happy_Pre	0.7	0
SchoolConnect_Pre	Confidence_Pre	0.41	0
SchoolConnect_Pre	ParSuper_Pre	0.11	0.03
Happy_Pre	Confidence_Pre	0.41	0
Confidence_Pre	ParSuper_Pre	0.15	0.01
PositiveBeh	SchoolProb_Post	-0.19	0
PositiveBeh	SchoolConnect_Post	0.12	0.02
PositiveBeh	Confidence_Post	0.2	0
PositiveBeh	ParSuper_Post	0.17	0
SchoolProb_Post	SchoolConnect_Post	-0.3	0
SchoolProb_Post	Happy_Post	-0.23	0
SchoolProb_Post	Confidence_Post	-0.22	0
SchoolProb_Post	ParSuper_Post	-0.18	0
SchoolConnect_Post	Happy_Post	0.67	0
SchoolConnect_Post	Confidence_Post	0.38	0
Happy_Post	Confidence_Post	0.38	0
Confidence_Post	ParSuper_Post	0.28	0

School problems are negatively correlated with positive behaviors. School connectedness, happiness, confidence, and parental supervision are all positively associated with positive behaviors. The pretest regression was significant $F(5, 356)= 4.833$, $p < .001$ and accounted for 6% of the variance in knowledge change ($R^2 = .06$). School connectedness before the intervention was a moderately strong positive predictor of teacher rated positive behaviors after the intervention.

The posttest regression was also significant $F(5, 357)= 7.008$, $p < .001$ and accounted for 8% of the variance in knowledge change ($R^2 = .08$). School problems was a small negative predictor of positive behaviors, more school problems at the end of the intervention were associated with less positive behaviors. Confidence and parental supervision were both positive predictors of positive behavior, high confidence and parental supervision at the end of the intervention were associated with more positive behaviors at the end of the intervention. Teacher-rated positive behaviors are related to psychological variables and do predict positive behaviors, therefore null hypothesis 13 was rejected.

Null hypothesis 14: Teacher self-efficacy does not predict the amount of knowledge students learn from the intervention at posttest. This hypothesis will be tested using a regression model. The regression was significant $F(1, 368)= 1.218$, $p < .05$ and accounted for 2% of the variance in knowledge change ($R^2 = .02$). Teacher self-efficacy is a positive predictor of bully knowledge, thus the more a teacher believes they are effective with a particular student, the more knowledge that student gains about bullying. Teacher self-efficacy does predict the amount of knowledge students learn from the intervention at posttest, therefore null hypothesis 14 was rejected.

Summary

1) The intervention was not effective in reducing bullying behaviors or victimization. Students reported more bullying and victimization after one year of the intervention than at pretest. African Americans and males reported more bullying and victimization at pretest and posttest than other races or females. African Americans and males were also more likely to report an increase in bullying behavior over the course of the intervention.

2) Several variables were positive predictors of bullying behavior including being African American, male, reporting high amounts of problems in their school, and earning lower grades. Confidence and school connectedness were negative predictors of bullying. Several variables were positive predictors of victimization including being African American, male, and being a 4th grade student. Confidence and school connectedness were also negative predictors of victimization.

3) Unhealthy breakfast was a positive predictor of bullying behavior, and students that ate unhealthy breakfast were more likely to report an increase of bullying behavior over time.

4) Confidence is an important predictor of bully knowledge. Examination of this scale yielded two separate factors: skills and facts. Confidence is a strong predictor of skills; however nothing predicted facts. Thus, the intervention should focus on teaching students the skills needed to handle bullies.

5) Parental supervision was a positive predictor of positive contacted self-initiated. School connectedness, happiness, and parental supervision were positive predictors of positive contacted other-initiated. Students with high rates of bully knowledge skills were less likely to engage in bullying behavior. Students that report more positive contact initiated by others are more likely to report engaging in bullying behavior.

6) School connectedness, confidence, and parental supervision were positive predictors of teacher-rated positive behaviors. School problems was a negative predictor of teacher-rated positive behaviors. Teacher self-efficacy is a positive predictor of bully knowledge.

Chapter 5

Discussion

Research and Clinical Implications

There is a large body of literature that has examined the efficacy of bullying prevention/intervention programs. However, there is limited information regarding investigation into the specific variables that predict intervention success. To address this issue, the field is moving toward a different type of analysis that focuses on how interventions might have been /ineffective for some students rather than overall measures of effectiveness. This study sought to examine which variables differentiate bullies and victims who respond to a universal bullying intervention from bullies and victims who do not respond to a universal bullying intervention

Intervention Efficacy and the Reduction of Bullying and Victimization

Overall, it seems that the intervention was not effective in reducing student self-report of bullying and victimization. Students reported more bullying and victimization after a year of the prevention/intervention project. This finding could be explained by several hypotheses: 1) the intervention was not effective, 2) the implementation was compromised by the quality of training provided to teaching staff, 3) the instrumentation for the intervention has problems with reliability and/or validity, 4) the teachers inconsistently implemented the intervention, 5) students did benefit from the intervention but their reporting was non-representative due a learning effect (i.e., at the pretest students were not knowledgeable about what behaviors constitute bullying and victimization and therefore underreported, but by posttest students had learned about the concepts and accurately reported).

This author believes that some of these hypotheses have more merit than others. The intervention appears to have well-established theoretical underpinnings (e.g., behavioral, socio-cognitive, developmental). Bully Busters also is reported to have good face validity according to experienced school administrators and child clinicians. The instrumentation scales were found to have high reliability (.8 to .9), with the exception of the Happiness scale which was removed from analyses because of this issue. Additionally, this author's previous work suggests that Bully Busters is effective in meeting the majority of its' goals. Students that participated in qualitative interviews were able to display the following: knowledge and specific skills presented during the intervention, positive change in school and classroom climate, increased confidence about how to handle bullying in their own lives, increase in student awareness of the impact and consequences of bullying, changes in "attitude" and behaviors, decrease in the incidence of bullying over the school year, and increase in empathy for victims and a desire to help victims in the future (Hunter, 2007).

The hypothesis concerning implementation problems is consistent with this author's previous qualitative work in which all of the participants discussed their perception of the relationship between the quality of the intervention and the investment of their teacher. Several students made statements that described their perception that their teacher was not invested in the activities, and did not wish to use class time to complete the activities. This finding was also found in a related quantitative evaluation of the middle school Bully Busters program. "There appears to be evidence that a few groups (of teachers) assumed an 'oppositional' stance toward the materials and the co-facilitators. It is likely that the intervention that these groups received differed significantly from the more 'treatment-compliant' groups" (Bell, 2007). Teachers confidence in their ability to provide the intervention and manage student behaviors is clearly a

critical part of the intervention effectiveness. The implementation problems do not seem to be related to initial training of teachers due to the trainers' qualifications. The training for teachers in this study was completed two highly qualilfied researchers/clinicians: the author of the treatment manual, and an experienced researcher in health promotion and prevention programs.

The final hypothesis is a likely scenario due to the pre-post research design. Bullying-specific information is thought to be a novel concept to elementary school students. Therefore, it is reasonable to infer that students would report low levels of bullying and victimization at the beginning of the intervention due to ignorance of these concepts, and high amounts at the end of the intervention because they learned material throughout the year.

Demographic Variables and Bullying and Victimization

Several demographic variables were correlated with bullying or victimization in this participant group. African Americans reported more bullying behavior and victimization than other races at pretest and posttest. Race was also predictive of increasing bullying behavior and victimization during the course of the intervention.

This finding is in contrast to previous research that has been conducted with African American students. Previous studies indicate that overall incidence rates of bullying is lower than with White samples (Estell, Farmer, & Cairns, 2007). Another study found the following incidence rates in African American and Hispanic adolescents: bullies (7%), victims (12%), bully-victims (5%), or neither (76%). Students are significantly more likely to be reported to have bullied same-race students rather than race students (Flescher Peskin, Tortolero, & Markham, 2006). This finding may be related to the participant sample of this study which included a majority of African American students (N=223/411). This is different from previously studied samples which have included a majority of White students. Given that children are more

likely to bully same-race rather than other-race victims, it could be inferred that these students engaged in higher rates of bullying than previously reported. This finding could be also be explained by the effects of the differences between samples (e.g., socioeconomic status, school resources, family values related to violence).

This finding could also represent limited intervention efficacy with non-majority students. There is a move in the prevention field itowards development of culturally-tailored interventions in the field with the goal of increasing intervention effectiveness. This issue is complicated by research that indicates that universal programs have the ability to be effective for both White students and students of color regardless of culturally-relevant design. Service programs have shown positive overall intervention effects with ethnic minority respondents on their delinquent behavior, school participation, peer relations, academic achievement, behavior problems, psychological adjustment, and attitudes (Wilson, Lipsey, & Haluk, 2003).

Sex/gender was also related to bullying behavior and victimization at both Pre and Post tests. Males reported higher initial rates of bullying behavior and victimization and greater increase over time compared with females. This finding has been replicated in previous literature on risk and protective factors in bullying and has been strongly related to differences in bullying and victimization. Boys have been found to be more involved in pro-bullying behaviors than girls, and girls have higher rates of both defending the victim and withdrawing from the bullying situation than boys (Salmivalli & Voete, 2004).

Grades (e.g., earned in classes) were negatively correlated with bullying behavior on both Pre and Post measures, and a moderate predictor of bullying behavior change during the course of the intervention. Higher grades were associated with participants reporting lower bullying behavior. There was a gender difference on this measure with boys reporting both lower grades

and increased bullying behavior. This finding may represent a gender difference in compliance with the learning environment (e.g., girls may be earning higher grades and reporting less bullying due to increase compliance in supervised settings). Also, students that earn higher grades may have other factors that supporting their success that have been previously identified as risk or protective factors (e.g., family support, higher IQs, absence of learning disorders).

Psychological Variables and Bullying and Victimization

Three psychological variables were predictive of bullying behavior or victimization: school problems, confidence, and school connectedness. More school problems (e.g., gangs, racism, unsafe climate) were found to be predictive of increased levels of bullying. This finding is consistent with previous identified risk factors including association with delinquent peers and involvement in gangs. Confidence (e.g., ability to choose a nonviolent solution to conflict) was predictive of less bullying and victimization. Previously identified risk factors include high emotional distress, poor behavioral control, history of treatment for emotional problems, and hyperactivity or learning disorders. This finding suggests that participants with greater emotional resources are able to make more positive choices when confronted with challenging situations.

Another predictor was more school connectedness (e.g., positive feelings associated with the school and its personnel) is associated with less bullying and victimization. Previous protective factors include commitment to school, connectedness to adults outside the family, and involvement in social activities. These findings are encouraging because school administrators, educators, parents, and clinicians can put their resources towards these variables to effect change in the overall problem of bullying and victimization facing our students.

Other Predictors

Unhealthy breakfast was a predictor of increased bullying behavior during the course of the intervention. Quality of breakfast foods did not predict victimization, thus breakfast did not have any impact on whether a student reported being victimized. It is unclear why quality of breakfast foods was a predictive factor for bullying behavior but not victimization. One hypothesis that is consistent with the previous literature is that unreliable food sources with low nutritional value are positively associated with externalizing behavior problems, and increased aggressive or hyperactive behavior. This type of behavioral presentation is more consistent with bullying behavior than victimization. Another hypothesis is that other variables (e.g., socioeconomic status, family resources) may explain why students who do not receive adequate nutritional resources may also engage in bullying behavior.

Knowledge of information taught during the course of the intervention is an important component of the overall intervention. The knowledge scale contained two distinct components: facts (e.g., definitions) and skills (e.g., how to effetively handle conflict). Students with high levels of knowledge were more likely to report low levels of bullying and victimization during the course of the intervention. However, only the skills component was strongly predictive of decreased bullying and victimization. Confidence was the only significant predictor of increased knowledge. Additionally, more school connectedness, happiness, confidence, and parental supervision were all associated with greater skills knowledge.

Positive contact with others is related to psychological variables, bullying and victimization, and knowledge. Parental supervision was predictive of students initiating contact with others, and could indicate that students with higher perceived support from their families have increased confidence to engage in positive social interactions. Additionally, school

connectedness, happiness, and parental supervision were predictive of students reporting high levels of having positive contact initiated by others.

Interestingly, these PCI-Other students also reported engaging in more bullying behavior. This finding could indicate that the students in this sample who perceive themselves as having many friends and social interactions are also more likely to engage in bullying behavior. This is consistent with previous literature which has found that for African American students there is an increased integration of bullies into larger social network (Estell, Farmer, & Cairns, 2007), as opposed to more social isolation in White samples.

Knowledge (e.g., skills) and PCI-Other were negative predictors of victimization. Students that learned how to deal effectively with bullying through the intervention and reported positive contact with others experienced decreased rates of victimization. Conversely, PCI-Self was a positive predictor of victimization. This finding may be explained by students that try to initiate positive contact to a high level may inadvertantly put themselves in the path of bullies.

Teacher Ratings

Teacher-rated positive behaviors were predicted by several psychological variables: school problems, school connectedness, confidence, and parental supervision. School problems was a negative predictor, indicating that students report of problems in their school was related to teachers' perception of behavior problems in these students. School connectedness, confidence, and parental supervision were all positively predictive of increased positive behaviors. Teachers are likely to view students that have high levels of family support and discipline, are connected to school, and are confident in their abilities as displaying more appropriate school behaviors than other students.

Teacher self-efficacy is a positive predictor of bully knowledge, thus the more a teacher believes they can be effective with a particular student, the more knowledge that student gains about bullying.

Limitations

1) The scope of this study was limited to the fourth through fifth-grade teachers and their students at four suburban public elementary schools in the Southeastern United States of America.

2) The teachers participated in the study as a means to fulfill their continuing education credit requirement. Thus, generalization of these findings to populations of teachers whose participation is voluntary or uncompensated is questionable.

3) There was no formal oversight to insure that the teachers were utilizing the bully reduction intervention explicitly (i.e., delivering the in-class activities which were provided to them for their students), or implicitly (i.e., intervening with students in an appropriate way when they witness bullying incidents).

4) There was no demographic information collected for the teachers. This could have been helpful in understanding the relationships between teacher variables and intervention effectiveness.

Conclusions and Recommendations for Further Research

Bully Busters is more effective for students with the following demographic and Psychological variables: White, Asian, Hispanic, or other race/ethnicity (e.g., less effective for African American students); female; earn high grades in school; high levels of happiness; high confidence in their ability to choose non-violent solutions; good nutrition; high levels of parental supervision; high levels of school connectedness; high levels of positive contact with others;

have positive behaviors as rated by their teachers; and have teachers with high self-efficacy related to the intervention.

Bully Busters is an effective intervention for some students, but could be redesigned to be more powerful. Specifically, the intervention could be modified to include more culturally-relevant and gender specific information and strategies. The intervention should focus on teaching students skills to effectively deal with peer conflict rather that specific information about bullies and victims. This could mean a greater focus on general social skills, use of alternative teaching strategies such as role playing and more rehearsal of skills, or student-driven projects to create additional resources. Also, positive predictors (e.g., school connectedness, confidence) could be capitalized on using intervention strategies and existing school resources. This data indicates the need for additional support and services for students with identified risk factors in conjunction with Bully Busters to increase intervention effectiveness. Students may benefit from more intensive individual or small group interventions provided by qualified school personnel.

Individual students, rather than group information, could be identified to understand the interaction of multiple variables and how this translates into ability to benefit from the intervention on an individual level. This information could then be used to further pinpoint how to intervene with individual students.

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APPENDIX 1

Student Survey Pre

I-CARE Project

Instructions:

Completing the survey is voluntary. You may stop at any time.

You may refuse to answer any question.

1. Write your answers to the questions in this booklet.

2. DO NOT write your name anywhere on the survey.

THANK YOU FOR ANSWERING THIS SURVEY.

SECTION 1. Please circle your answer.

1. My school is:
a. A. Elementary
b. B. Elementary
c. C. Elementary
d. D. Elementary

2. My grade is:
a. 4^{th} grade
b. 5^{th} grade

3. My age is:
a. 8
b. 9
c. 10
d. 11
e. 12 or older

4. I am a:
a. Boy
b. Girl

5. I am:
a. Black (African American & not Hispanic)
b. White (not Hispanic)
c. Hispanic
d. Asian
e. Other

6. My usual grades are:
a. Mostly As (90s)
b. Mostly As and Bs (90s and 80s)
c. Mostly Bs (80s)
d. Mostly Bs and Cs (80s and 70s)
e. Mostly Cs (70s)
f. Mostly Cs and Fs (70s and 60s)

7. Think about the grown-ups living in your house. Put a check by each grown-up who lives in your house.

____ Mother
____ Father
____ Stepmother/Father's Girlfriend
____ Stepfather/Mother's Boyfriend
____ Foster Mother/Guardian
____ Foster Father/Guardian
____ Grandmother
____ Grandfather
____ Aunt
____ Uncle
____ Other relatives or friends

SECTION 2.
Are these a PROBLEM AT YOUR SCHOOL?

	No problem	**Little problem**	**Medium problem**	**Big problem**
Fighting (hitting and kicking) among students	**o**	l	l	l
Kids wrecking school property	**o**	l	l	l
Student disrespect for teachers	**o**	l	l	l
People who are different colors don't like each other	**o**	l	l	l
Unsafe areas in the school	**o**	l	l	l
Teachers ignore it when students threaten other students	**o**	l	l	l
Teachers ignore it when students tease other students	**o**	l	l	l
Bullying	**o**	l	l	l

SECTION 3.
These questions are also about your SCHOOL.

	Yes	**Sometimes**	**No**
1. I have friends at this school.	J	K	L
2. My teachers care about me.	J	K	L
3. I am happy to be at this school.	J	K	L
4. The teachers treat students fairly.	J	K	L
5. I feel safe in my school.	J	K	L
6. Teachers treat students with respect.	J	K	L
7. Rules and consequences (punishments) are fair.	J	K	L
8. Students can make friends easily at this school.	J	K	L

SECTION 4.

Think about what happened DURING THE LAST 7 DAYS, when you answer these questions.

	During the last 7 days:	0 times	1 time	2 times	3 times	4 times	5 times	6 or more times
1.	How many times did a kid from your school tease you?	0	1	2	3	4	5	6+
2.	How many times did a kid from your school push, shove, or hit you?	0	1	2	3	4	5	6+
3.	How many times did a kid from your school call you a bad name?	0	1	2	3	4	5	6+
4.	How many times did kids from your school say that they were going to hit you?	0	1	2	3	4	5	6+
5.	How many times did other kids leave you out on purpose?	0	1	2	3	4	5	6+
6.	How many times did a student make up something about you to make other kids not like you anymore?	0	1	2	3	4	5	6+
7.	How many times did you tease a kid from your school?	0	1	2	3	4	5	6+
8.	How many times did you push, shove, or hit a kid from you school?	0	1	2	3	4	5	6+
9.	How many times did you call a kid from your school a bad name?	0	1	2	3	4	5	6+
10.	How many times did you say that you would hit a kid from your school?	0	1	2	3	4	5	6+
11.	How many times did you leave out another kid on purpose?	0	1	2	3	4	5	6+
12.	How many times did you make up something about other students to make other kids not like them anymore.	0	1	2	3	4	5	6+

☺ **SECTION 5.**

The next questions ask about how you feel. Circle the face that describes how you feel.

	Happy	So-so	Not happy
1. How happy do you feel about your SCHOOL?	J	K	L

2. How happy do you feel about your FRIENDS at school?	□	K	L
3. How happy do you feel about your FAMILY?	□	K	L
4. How happy do you feel about your TEACHERS?	□	K	L
5. How happy do you feel about YOURSELF?	□	K	L

If you have a problem with a student, how SURE are you that you could do the following things IF YOU WANTED TO?

		Very sure	Somewhat sure	Don't know	Not very sure	Not sure at all
1.	Stay out of fights by choosing other solutions?	□□	C	?	□	DD
2.	Talk out a disagreement?	□□	C	?	□	DD
3.	Calm down when you are mad?	□□	C	?	□	DD
4.	Ignore someone who is making fun of you?	□□	C	?	□	DD
5.	Avoid a fight by walking away?	□□	C	?	□	DD
6.	Apologize to the other student?	□□	C	?	□	DD
7.	Seek help from an adult?	□□	C	?	□	DD

SECTION 7. The last section!
The next questions are about your routine at home.

1. On weekdays (Monday, Tuesday, Wednesday, Thursday, Friday), how many hours of TV do you watch a day?

a. I don't watch television (TV) during the week days
b. 1 hour or less a day
c. 1 to 2 hours a day
d. 2 to 3 hours a day
e. 3 to 4 hours a day
f. 4 or more hours a day

2. During the weekend (Saturday or Sunday), how many hours of TV do you watch a day?

a I don't watch television (TV) during the week days

b. 1 hour or less a day
c. 1 to 2 hours a day
d. 2 to 3 hours a day
e. 3 to 4 hours a day
f. 4 or more hours a day

3. What time do you usually go to SLEEP on a school night?

a. Before 8:00 PM
b. Between 8:01 PM and 9:00 PM
c. Between 9:01 PM and 10:00 PM
d. Between 10:01 PM and 11:00 PM
e. Between 11:01PM and 12:00 midnight
f. After 12:00 midnight

4. What time do you usually WAKE UP in the morning on a school day?

a. Before 5:00 AM
b. Between 5:01 AM and 6:00 AM
c. Between 6:01 AM and 7:00 AM
d. Between 7:01 AM and 8:00 AM
e. Between 8:01 AM and 9:00 AM
f. After 9:00 AM

8. When you are away from home, do your parents know where you are?

a. Never or almost never
b. Rarely
c. Sometimes
d. Usually
e. Almost always or always

9. When you are away from home, do your parents know who you are with?

a. Never or almost never
b. Rarely
c. Sometimes
d. Usually
e. Almost always or always

10. How well do you get along with the parent or guardian that you live with all or most of the time?

a. Very well

b. Well

c. Just OK

d. Bad

e. Very Bad

11. What do you usually eat in the morning before starting classes? (Mark all that apply.)

__ Nothing

__ White bread

__ Whole wheat bread

__ Candy

__ Snack cake such as Honey Bun or Oatmeal Crème Pie

__ Biscuits

__ Cookies

__ Bowl of cereal with milk

__ Pop tarts or other breakfast snacks

__ Eggs

__ Bacon or Sausage

__ Potato chips or other snack chips and crackers

__ Pancakes or French toast

__ Fruit bar or granola bar

__ Glass of 100% fruit juice

__ Tea

__ Coffee

__ Gatorade or other sport drinks

__ Fruitopia or other fruit drink

__ Glass of milk

__ Coke or other soft drinks

APPENDIX 2

Student Survey Post

I-CARE Project

Student Survey
Spring 2004

Instructions:

Completing the survey is voluntary. You may stop at any time.

You may refuse to answer any question.

Write your answers to the questions in this booklet.

DO NOT write your name anywhere on the survey.

THANK YOU FOR ANSWERING THIS SURVEY.

. (cut on the perforated line)

School #:
Teacher's last name:
Grade:

Student's name:
Code:

SECTION 1. Please circle your answer.

4. My school is:
a. A. Elementary
b. B. Elementary
c. C. Elementary
d. D. Elementary

5. My grade is:
a. 4^{th} grade
b. 5^{th} grade

6. My age is:
a. 8
b. 9
c. 10
d. 11
e. 12 or older

7. I am a:
a. Boy
b. Girl

8. I am:
a. Black (African American & not Hispanic)
b. White (not Hispanic)
c. Hispanic
d. Asian
e. Other

9. My usual grades are:
a. Mostly As (90s)
b. Mostly As and Bs (90s and 80s)
c. Mostly Bs (80s)
d. Mostly Bs and Cs (80s and 70s)
e. Mostly Cs (70s)
f. Mostly Cs and Fs (70s and 60s)

10. Think about the grown-ups living in your house. Put a check by each person who lives in your house.

____ Mother
____ Father
____ Stepmother/Father's Girlfriend
____ Stepfather/Mother's Boyfriend
____ Aunt
____ Uncle
____ Other relatives or friends
____ Brother(s)
____ Sister(s)
____ Other kids

____ Foster Mother/Guardian
____ Foster Father/Guardian
____ Grandmother
____ Grandfather

SECTION 2.

Are these a PROBLEM AT YOUR SCHOOL?

	No problem	**Little problem**	**Medium problem**	**Big problem**
Fighting (hitting and kicking) among students	**o**	□	l	l
Kids wrecking school property	**o**	□	l	l
Student disrespect for teachers	**o**	□	l	l
People who are different colors don't like each other	**o**	□	l	l
Unsafe areas in the school	**o**	□	l	l
Teachers ignore it when students threaten other students	**o**	□	l	l
Teachers ignore it when students tease other students	**o**	□	l	l
Bullying	**o**	□	l	l

SECTION 3.

These questions are also about your SCHOOL.

	Yes, always	**Yes, most of the time**	**Sometimes**	**No**
1. I have friends at this school.	□□	J	K	L
2. My teachers care about me.	□□	J	K	L
3. I am happy to be at this school.	□□	J	K	L
4. The teachers treat students fairly.	□□	J	K	L

5. I feel safe in my school.	□□	J	K	L
6. Teachers treat students with respect.	□□	J	K	L
7. Rules and consequences (punishments) are fair.	□□	J	K	L
8. Students can make friends easily at this school.	□□	J	K	L

ÿ**SECTION 4.**
Think about what happened DURING THE LAST 7 DAYS, when you answer these questions.

	During the last 7 days:	**0 times**	**1 time**	**2 times**	**3 times**	**4 times**	**5 times**	**6 or more times**
1.	How many times did a kid from your school tease you?	0	1	2	3	4	5	6+
2.	How many times did a kid from your school push, shove, or hit you?	0	1	2	3	4	5	6+
3.	How many times did a kid from your school call you a bad name?	0	1	2	3	4	5	6+
4.	How many times did kids from your school say that they were going to hit you?	0	1	2	3	4	5	6+
5.	How many times did other kids leave you out on purpose?	0	1	2	3	4	5	6+
6.	How many times did a student make up something about you to make other kids not like you anymore?	0	1	2	3	4	5	6+
7.	How many times did you tease a kid from your school?	0	1	2	3	4	5	6+
8.	How many times did you push, shove, or hit a kid from you school?	0	1	2	3	4	5	6+
9.	How many times did you call a kid from your school a bad name?	0	1	2	3	4	5	6+
10.	How many times did you say that you would hit a kid from your school?	0	1	2	3	4	5	6+
11.	How many times did you leave out another kid on purpose?	0	1	2	3	4	5	6+
12.	How many times did you make up something about other students to make other kids not like them anymore.	0	1	2	3	4	5	6+

☺ **SECTION 5.**

The next questions ask about how you feel. Circle the face that describes how you feel.

	Very Happy	**Happy**	**So-so**	**Unhappy (Not happy)**	**Very unhappy**
1. How happy do you feel about your SCHOOL?	JJ	J	K	L	LL
2. How happy do you feel about your FRIENDS at school?	JJ	J	K	L	LL
3. How happy do you feel about your FAMILY?	JJ	J	K	L	LL
4. How happy do you feel about your TEACHERS?	JJ	J	K	L	LL
5. How happy do you feel about YOURSELF?	JJ	J	K	L	LL

If you have a problem with a student, how SURE are you that you could do the following things IF YOU WANTED TO?

		Very sure	Somewhat sure	Don't know	Not very sure	Not sure at all
1.	Stay out of fights by choosing other solutions?	**CC**	C	?	**D**	DD
2.	Talk out a problem or disagreement?	**CC**	C	?	**D**	DD
3.	Calm down when you are mad?	**CC**	C	?	**D**	DD
4.	Ignore someone who is making fun of you?	**CC**	C	?	**D**	DD
5.	Avoid a fight by walking away?	**CC**	C	?	**D**	DD
6.	Apologize (say 'sorry') to the other student?	**CC**	C	?	**D**	DD
7.	Get help from an adult?	**CC**	C	?	**D**	DD

SECTION 7.

During this year (since September), I learned at school:

	What an aggressive bully is.	**Yes**	**No**	**Not sure**
	What a relational bully is.	**Yes**	**No**	**Not sure**
	How bystanders can prevent bullying.	**Yes**	**No**	**Not sure**
	Different ways to calm down when I am angry or tense.	**Yes**	**No**	**Not sure**

	Different ways to respond when I am angry, that will not get me in trouble.	**Yes**	**No**	**Not sure**
	How to solve problems or conflicts with other kids.	**Yes**	**No**	**Not sure**
	How to talk out a problem with other kids.	**Yes**	**No**	**Not sure**
	How to give and receive compliments (praise, kind words).	**Yes**	**No**	**Not sure**
	How things that I do can make others feel good or bad.	**Yes**	**No**	**Not sure**

The next questions are about home.

10. When you are away from home, do your parents know where you are?

a. Never or almost never

b. Rarely

c. Sometimes

d. Usually

e. Almost always or always

11. When you are away from home, do your parents know who you are with?

a. Never or almost never

b. Rarely

c. Sometimes

d. Usually

e. Almost always or always

12. How well do you get along with the parent or guardian that you live with all or most of the time?

a. Very well

b. Well

c. Just OK

d. Bad

e. Very Bad

13. Do you eat breakfast at school?

a No

b. Yes, 1 to 2 times a week

c. Yes, 3 to 4 times a week

ci. d. Yes, every day I come to school

The next page is the last!

SECTION 8. The last section!

Think about what happened DURING THE LAST 7 DAYS, when you answer these questions.

During the last 7 days:	0 times	1 time	2 times	3 times	4 times	5 times	6 or more times
How many times did a kid from your school say or do something nice to you?	0	1	2	3	4	5	6+
How many times did a kid from your school say "thanks" or "you are welcome" to you?	0	1	2	3	4	5	6+
How many times did a kid from your school help you?	0	1	2	3	4	5	6+
How many times did kids from your school say or do something that made your feel good?	0	1	2	3	4	5	6+
How many times did a kid from your school invite you to participate in a game, group conversation, or a class activity?	0	1	2	3	4	5	6+
How many times did a kid from your school say a compliment (praise, kind word) to you?	0	1	2	3	4	5	6+
How many times did a kid from your school offer to help you?	0	1	2	3	4	5	6+
How many times did a kid from your school share something with you?	0	1	2	3	4	5	6+
How many times did a kid from your school act friendly with you?	0	1	2	3	4	5	6+
How many times did you say or do something nice to a kid from your school?	0	1	2	3	4	5	6+
How many times did you say, "thanks" or "you are welcome" to a kid from your school?	0	1	2	3	4	5	6+
How many times did you help a kid from your school?	0	1	2	3	4	5	6+
How many times did you say or do something that made another kid feel good?	0	1	2	3	4	5	6+
How many times did you invite a kid from your school to participate in a game, group conversation, or a class activity?	0	1	2	3	4	5	6+
How many times did you say a compliment (praise, kind word) to a kid from your school?	0	1	2	3	4	5	6+
How many times did you offer to help a kid	0	1	2	3	4	5	6+

from your school?							
How many times did you share something with a kid from your school?	0	1	2	3	4	5	6+
How many times did you act friendly with a kid from your school?	0	1	2	3	4	5	6+

THANKS, YOU DID GREAT!

APPENDIX 3

Teacher Behavior Rating Scale

I-CARE PROJECT
TEACHER BEHAVIOR RATING OF STUDENTS
FALL 2003

Please answer the following questions keeping _____ in mind.
(Child's code)

	Not At All	**A Little**	**Moderately Well**	**Well**	**Very Well**
Can accept things not going his/her way.					
Copes well with failure.					
Accepts legitimate imposed limits.					
Expresses needs and feelings appropriately.					
Thinks before acting.					
Resolves peer problems on his/her own.					
Can calm down when excited or all wound up.					
Can wait in line patiently when necessary.					
Is very good at understanding other people's feelings.					
Is aware of the effect of his/her behavior on others.					
Works well in a group.					
Plays by the rules of the game.					
Controls temper when there is a disagreement.					
Shares materials with others.					
Cooperates with peers without prompting.					
Is helpful to others.					

. Listens to others' points of view.					
. Can give suggestions and opinions without being bossy.					
. Acts friendly towards others.					

Please indicate the degree to which each of the following statements reflects your expectations for this child.

Mark only one choice for each item.

	Disagree completely	**Disagree somewhat**	**Neutral**	**Agree somewhat**	**Agree completely**
. This student will be able to accomplish his/her goals.					
. This student will be good at learning new skills.					
. This student will carry through on responsibilities.					
. This student will be able to participate in my class.					
. This student will be able to handle new situations well.					

Please indicate how each of the following statements applies to this child.
Mark only one choice for each item.

	Highly uncertain	**Somewhat uncertain**	**Uncertain**	**Somewhat confident**	**Highly confident**
. I feel capable to help this student master the material taught this year.					
. I am certain I can manage this student's behavior.					
. I feel I can help this student become a successful student.					