THE EFFECTS OF A CYBERBULLY PREVENTION PROGRAM ON MIDDLE SCHOOL STUDENTS' ONLINE BEHAVIORS AND SELF-ESTEEM

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ABSTRACT

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THE EFFECTS OF A CYBERBULLY PREVENTION CURRICULUM
ON MIDDLE SCHOOL STUDENTS' ONLINE BEHAVIORS AND SELF-ESTEEM

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The purpose of the current study was to examine the effects of a cyberbully prevention curriculum on 168 sixth-grade students. The researcher randomly assigned students to treatment and control groups. The treatment group received 8 weeks of cyberbully prevention curriculum while participants in the control group remained in their regular health class. The researcher assessed all students in each group for cyberbullying/victimization behaviors as well as bystander behaviors using an adapted version of the Cyber Savvy Survey (Willard, 2011), a cyberbullying behavior survey that was administered at pretest, posttest, and a delayed posttest. The researcher also assessed self-esteem across the same time points using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Analysis of the results included separate MANCOVAs for cyberbullying/victimization and bystander behaviors at posttest and delayed posttest, controlling for appropriate pretest scores. Additionally, the researcher used ANCOVAs to examine any change in self-esteem at posttest and delayed posttest, controlling for pretest self-esteem scores. Results were supported with qualitative responses offered by students to open-ended questions asked on the Adapted Cyber Savvy Survey. The results

of the current study may have important implications for educational practitioners and directions for future research.

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CHAPTER I

INTRODUCTION

Background Information

Adolescents use technology (e.g., cell phones, computers) to communicate with each other on a daily basis. Although use of the Internet connects students worldwide and may have many educational benefits, not all online activity is positive. Students use text mail, e-mail, social networking sites, and chatrooms to interact with each other with both positive and negative outcomes. These social outlets have provided an environment conducive to online aggressive behavior referred to as cyberbullying (Hinduja & Patchin, 2008; Kowalski & Limber, 2007; Willard, 2006). Researchers have defined cyberbullying as "willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices" (Hinduja & Patchin, 2009, p. 5).

Researchers have compared cyberbullying to more traditional forms of direct and indirect aggression. Olweus defined bullying that includes direct aggression as "repeated physical and aggressive attacks on a victim" (1993, p.15). Indirect bullying can include more relational and social types of aggression, such as spreading rumors, gossip, social manipulation, harassment, and exclusion, as well as name-calling, teasing, and taunting (Crick & Grotpeter, 1995). In order for behaviors to be classified as bullying, the following three components are typically present: (a) aggressive, unwanted, and negative actions; (b) repetition of the undesirable actions over a period of time; and (c) an

imbalance of physical or social power (Olweus, 1993). Cyberbullying consists of similar components with some unique differences (Kowalski, Limber, & Agatston, 2008). Whereas traditional and relational bullying may end with the school day, cyberbullies have access to their victims at all hours of the day, even in their own homes (Hinduja & Patchin, 2007; Kowalski & Limber, 2007; Ybarra & Mitchell, 2004). Cyberbullying can occur with perceived anonymity, which not only takes less courage than traditional bullying but also allows victims to be unaware of their aggressors' identity (Hinduja & Patchin, 2007; Willard, 2006). Cyberbullies are unable to witness the emotional reaction of their victims when they are not face-to-face, which possibly can cause more harm because bullies do not have a signal as when to stop bullying (Willard, 2006). Because non-verbal cues are absent in cyberbullying, miscommunication can be an issue. A possible solution may be teaching students to devise a common code, such as the use of emoticons, to help interpret electronic messages. Finally, cyberbullying can occur with a much larger audience on social networking sites and through forwarded e-mails and texts, which potentially exacerbates humiliation (Hinduja & Patchin, 2007; Kowalski & Limber, 2007; Willard, 2006). Some examples of activities that may be classified as cyberbullying include: posting untrue or harmful statements, repeatedly sending offensive or rude messages, sending threats or intimidation, posting or forwarding someone's private information, excluding someone from an online group, and impersonating someone online (Willard, 2007).

Prevalence and Effects of Cyberbullying

Cyberbullying is an ongoing problem with estimated prevalence rates ranging from 15%–40% (Hinduja & Patchin, 2008; Kowalski & Limber, 2007; Lenhart, Purcell, Smith, & Zickuhr, 2010; Ybarra & Mitchell, 2004). Psychological repercussions for the bully may include feelings of guilt and an increased likelihood to engage in other at-risk behaviors such as substance abuse, sexual promiscuity, truancy, decreased academic performance, and suicidal ideation (Hinduja & Patchin, 2010; Katzer, Fetchenhauer, & Belschak, 2009; Mesch, 2009; Mishna, McLuckie, & Saini, 2009; Ortega, Elipe, Mora-Merchán, Calmaestra, & Vega, 2009; Slonje & Smith, 2008; Smith et al., 2008; Subrahmanyam & Greenfield, 2008; Vandebosch & Van Cleemput, 2008). Victims may suffer from feelings of depression, low self-esteem, loneliness and withdrawal, isolation from the peer group, and suicidal thoughts. Similar to traditional bullying, the bystander, or student who may witness bullying/cyberbullying, can play a critical role in facilitating change. Bystander actions can either facilitate or alleviate bullying behaviors. Bystander behaviors that allow bullying to continue may include joining in, laughing, instigating, ignoring, and not making reports. Although many bystanders feel uncomfortable with bullying and cyberbullying, they often engage in behaviors, intentionally and unintentionally, which may perpetuate bullying behavior instead of taking social responsibility (Crick & Grotpeter, 1995; Frey et al., 2005; Salmivalli, Kaukiainen, & Voeten, 2005). Bystander behaviors, such as joining with the victim, reporting what has been witnessed, and gently intervening when comfortable, are behaviors that help the

victim and reduce bullying behaviors. However, this often does not occur because students report feeling uncomfortable with their level of skill and knowledge in these areas (Burns, Cross, & Maycock, 2010; Roeleveld, n.d.; Salmivalli, 1998). Increasing the self-efficacy of bystanders and providing them with skills and resources needed to intervene may increase socially responsible behavior. Additionally, bystanders often suffer from a feeling of powerlessness and a covert loss of self-respect (Carney & Merrell, 2001). The research on bullies, victims, and bystanders combined suggests that all students may benefit from opportunities for building social emotional skills and a stronger sense of self-concept.

Theoretical Perspective

Given that adolescence is a time when identity and self-concept are very important, the theoretical approach for this study focused on self-concept and how that is formed by collecting reactions and perceptions from others. Self-concept is defined as "totality of the individual's thoughts and feelings with reference to himself" and includes the components of self-esteem, self-efficacy, and self-identity (Simmons, Rosenberg, & Rosenberg, 1973, p. 554). Many researchers have examined low self-esteem of victims of bullying (Crick & Grotpeter, 1995; Kowalski et al., 2008; Limber, 2011; Olweus, 2005; Salmivalli, Kaukiainen, Kaistaniemi, & Lagerspetz, 1999; Ybarra & Mitchell, 2004); however, research regarding the self-esteem of bullies has been less clear. Some researchers have posited that bullies also suffer from low self-esteem (Burns et al., 2010; Burns, Maycock, Cross, & Brown, 2008; Hinduja & Patchin, 2010) whereas others have

suggested that bullies actually have high self-esteem and bully for the purpose of social climbing (Crick & Grotpeter, 1995; Salmivalli et al., 1999; Willard, 2006). Recent research shows that the self-esteem of bullies is actually an inflated sense of self that is reinforced by peers, but it is not a true measure of self-esteem (Burns et al., 2010; Roeleveld, n.d.). Hinduja and Patchin (2010) found that (a) both victims and bullies exhibit lower self-esteem than those students not involved in cyberbullying and (b) both victims and bullies are also more likely to engage in suicidal thoughts. While bystanders may exhibit higher self-esteem than bullies or victims, many have reported low self-efficacy when it comes to anti-bullying behaviors. Additionally, bystanders' feelings of powerlessness to intervene also affect their feelings about themselves.

Identity and social belonging can have a significant impact on self-esteem and the way students choose to interact with each other (Erikson, 1968). During this time of development, adolescents interpret how others perceive them, which helps them to build their identity (Elliott, Rosenberg, & Wagner, 1984; Rosenberg, Schooler, & Schoenbach, 1989; Simmons et al., 1973). Electronic communication has opened a new avenue for collecting opinions from others about how they are perceived (Hinduja & Patchin, 2010; Salmivalli et al., 1999; Willard, 2006).

Symbolic Interaction Theory includes the concept that others' perceptions guide individuals in their social behavior. This theory incorporates the assumption that people create meanings from their interactions with others and develop a self-concept based on the feedback they receive from others (Blumer, 1969; Brown & Lohr, 1987; Dennis &

Martin, 2005; Puddephatt, 2009; Stryker, 2001; Weigert & Gecas, 2005). Additionally, the theory focuses on role-taking and role-making in which people both adopt expected roles while also constructing roles through active participation. People act in different ways in different roles (Boss, Doherty, LaRossa, Schumm, & Steinmetz, 1993). For example, in the parent-child role, a child generally acts more respectful than they might in a peer-to-peer relationship. According to the Symbolic Interaction Theory, people display attitudes and behaviors that may be expectations to those particular roles (Blumer, 1969; Brown & Lohr, 1987; Dennis & Martin, 2005; Puddephatt, 2009; Stryker, 2001; Weigert & Gecas, 2005). Reinforcement of behaviors and attitudes can lead to changing the norm in both face-to-face interactions and through electronic communication. Helping students examine their own behaviors and attitudes through self-reflection may facilitate a change in online behavior and therefore alleviate cyberbullying to some degree. Facilitating more positive interactions between peers will not only enhance self-concept for students but also positively affect school climate (Frey et al., 2001; Merrell, 2007; Simmons et al., 1973).

In addition to Symbolic Interaction Theory, the researcher used Social Information Processing Theory (Dodge, 1986) in curriculum development and implementation. Social Information Processing Theory includes the concept that children engage in a 6-step process that addresses how they interpret and react to social cues in social situations. These steps include encoding, interpretation, clarification of goals, response access or construction, response decision, and behavioral enactment (Crick &

Dodge, 1994). In given social situations, all students may not exhibit the same reaction due to varying levels of experience. That is, while formulating a response, students may not have a schema that includes positive or appropriate reactions if they have not had previous experiences to reflect that. Allowing students the opportunities to observe or engage in positive interactions in challenging social situations may promote positive outcomes such as self-protection, reporting, intervening, and supporting the victim in a cyberbullying situation. As with Self-Esteem Theory and Symbolic Interaction Theory, Social Information Processing Theory incorporates the development of positive self-schemas based on successful social interactions with others (Crick & Dodge, 1994).

Educational Need and Curriculum Development

At the time of the current study, recent academic research indicated that middle school children experience more cyberbullying than children of any other age (Limber, 2011). Most cyberbullying occurs between peers (Hinduja & Patchin, 2007; Slonje & Smith, 2008; Willard, 2006) and during after-school hours. The effects of these exchanges often carry over into the school day, fostering insecurities about safety that also interfere with learning (Hinduja & Patchin, 2007; Limber, 2011; Willard, 2006). For these reasons, addressing cyberbullying has become a priority for school personnel. Many researchers and policy-makers suggest that school personnel should be proactive and offer prevention strategies for cyberbullying, yet few have explored or developed curriculum in this area (Anti-Bullying/Harassment, 2010; Chibbaro, 2007; Fredrick, 2009; Hinduja & Patchin, 2010; Mason, 2008; Willard, 2006).

Though availability of time- and cost-effective cyberbullying materials to educators is scarce, some suggestions across the literature have proven effective in other social emotional learning programs that address bullying and aggressive behaviors (Andreou, Didaskalou, & Vlachou, 2008; Frey et al., 2005; Hart et al., 2009; Limber, 2011; Merrell, Juskelis, Tran, & Buchanan, 2008; Newman-Carlson & Horne, 2004; Olweus, 2005; Salmivalli et al., 2005; Van Schoiack-Edstrom, Frey, & Beland, 2002). Student education should: (a) raise awareness of the prevalence and consequences of cyberbullying; (b) include student-led discussions; (c) engage students in positive message distribution; and (d) teach skills that address perspective-taking, problem-solving, empathy, and conflict resolution (Limber, 2011; Willard, 2006). Students must learn how to identify online avenues that encourage risky behavior. Effective programs also should include sharing information with parents and involving local law enforcement (Patchin & Hinduja, 2011; Willard, 2006).

The current study included the development of a curriculum that contained these components and addressed the needs of the bully, victim, and bystander in cyberbullying situations. Cyberbullying prevention lessons covered the specific topics of bullying, cyberbullying, Internet safety, making friends in middle school, texting, and social networking. Students participated in exercises that targeted friendship skills, perspective-taking, and conflict resolution and had the opportunity to practice those skills both in class and as homework assignments. Furthermore, students learned about the dangers that exist when they spend time online or in text and how to report and protect themselves

online. The homework component of the program focused on self-reflection and development of self-concept as students explored their individual experiences online. Students also received reference materials to share with their parents at home.

Implementation of this educational curriculum occurred across an 8-week period in the spring semester of the 2011-2012 school year. All sixth-grade students received this curriculum during the health rotation of their physical education course. The researcher determined course effectiveness by measuring student beliefs and attitudes before and after curriculum implementation. The researcher also administered self-esteem measures before and after curriculum implementation. Through random assignment, the researcher divided students into either treatment or control groups. The treatment group received the cyberbullying prevention curriculum during the first 8 weeks of the spring semester while the control group received the regular health curriculum on body systems. The control group received the treatment during the following 8 weeks.

Statement of the Problem

At the time of the current study, recent research suggested that 1 in 5 adolescents report being victims of cyberbullying (Hinduja & Patchin, 2008). According to Limber, (2011), this problem may worsen with the development of new technologies. Bullies, victims, and bystanders may experience long-term effects. Bullies become more likely to engage in future at-risk behaviors, and victims suffer from increased depression and loneliness. Both bullies and victims are more likely than non-involved peers to engage in

suicidal ideation (Hinduja & Patchin, 2010). Bystanders are typically uncomfortable and upset when they witness cyberbullying, but many students report feeling unequipped for dealing with these instances (Limber, 2011). Additionally, bystanders often perpetuate cyberbullying behavior by choosing to ignore the situation or by inadvertently support the bully. These occurrences may originate off school grounds but often carry over into the school day, which affects school climate and interferes with learning (Chibbaro, 2007; Willard, 2006). Researchers and policy-makers have suggested that school personnel must not only raise awareness but also invest in teaching Internet safety and preventative strategies to students.

Purpose of the Study

The purpose of this study was to measure the effects of a cyberbullying prevention program on student self-esteem and student cyberbullying behavior. The aim of this program was to increase sixth-grade student self-esteem, self-concept, and self-efficacy by raising awareness of the prevalence and consequences of cyberbullying and by: providing opportunities for positive experiences, modeling and guided practice of appropriate social emotional skills, teaching online safety, and through the use of homework self-reflection exercises. Additionally, the researcher designed this program to reduce cyberbullying behaviors in sixth-grade students as well as increase protective factors in cyber victims. Finally, this program contained components to enhance the socially responsible behavior of bystanders in cyberbullying instances. Specifically, program goals included increased reporting by bystanders, increased empathy and

support of victims, and increased confidence in intervening when comfortable. Increasing the self-concept and the knowledge and skills of students in sixth grade contributed to an increase in feelings of safety at school and a positive school climate, which allows for a better learning environment (Chibbaro, 2007; Frey et al., 2005; Limber, 2011; Merrell, 2007; Willard, 2006). For the current study, the researcher tested the following research questions and hypotheses.

Research Questions and Hypotheses

Research Questions

RQ_1: Will sixth-grade students who participate in a cyberbullying prevention program demonstrate fewer occurrences of cyberbullying behaviors at posttest than at pretest than will students who do not participate in a cyberbullying prevention program?

RQ_2: Will sixth-grade students who participate in a cyberbullying prevention program demonstrate greater bystander responsibility behaviors (e.g., reporting, supporting, and intervening) than will students who do not participate in a cyberbullying prevention program?

RQ_3: Will sixth-grade students who participate in a cyberbullying prevention program report greater self-esteem, self-efficacy, and self-concept at posttest than will students who do not participate in a cyberbullying prevention program?

Hypotheses

H_{01}: Sixth-grade students in the treatment group who participate in the 8-week cyberbullying prevention program will show a greater decrease in the frequency of self-reported cyberbullying behavior and victimization than will sixth-grade students in the control group who do not participate in the 8-week cyberbullying prevention program.

H_{02}: Sixth-grade students in the treatment group who participate in the 8-week cyberbullying prevention program will show a greater increase in bystander responsibility (e.g., reporting, supporting, and intervening) than will sixth-grade students who do not participate in the cyberbullying prevention program.

H_{03}: Sixth-grade students in the treatment group who participate in the 8-week cyberbullying prevention program will show a greater increase in self-esteem, self-reporting, and self-efficacy than will sixth-grade students who do not participate in the cyberbullying prevention program.

Limitations, Assumptions, and Design Controls

Factors outside of the school community may have influenced sixth-grade cyberbully, cybervictim, and bystander behaviors and self-concept; therefore, changes in behavior and self-concept may not be attributed to the intervention. Parenting style, family discord, community involvement, individual personal experiences, and access to positive media messages may have influenced students. Additionally, sixth-grade

students may have been considered under aged for social media use, and parental monitoring may have influenced online and cell phone interaction. Because of these factors, use of technology tools for peer communication may have been limited. The participants in this study were from homes with an above average socio-economic status, and as such, results from this study may be generalized only to similar populations of sixth-grade students. Additionally, use of self-report surveys in this study may have elicited socially desirable responses.

One assumption of this study was that a significant amount of students had access to social networking sites and unlimited texting. Another assumption was that participating sixth-grade students had experienced or witnessed cyberbullying either as a bully, victim, or bystander. Results from surveys that were conducted on the same campus indicated that over half of the study body have experienced cyberbullying as a bully, victim, or witness, which is consistent with the reviewed literature (Lenhart, Purcell, et al., 2010). An additional assumption was that all students can benefit from self-exploration and are motivated to learn about themselves through homework assignments and group participation.

Design controls for this study included anonymous surveys, random assignment to treatment and control groups, parental consent, and posttest follow-up. The researcher administered student surveys anonymously through use of the PsychData program. After parental consent, the researcher randomly assigned students to the treatment and control

groups. Following completion of the treatment, the control group received the cyberbullying prevention program across an 8-week span.

Definition of Key Terms

Acceptable Use Policy (AUP): policy that organizations create to define the responsibilities and appropriate behaviors of computer and network users (Hinduja & Patchin, 2009).

Bullying: repeated exposure over time to intentional injury or discomfort, through physical contact, through words, or in other ways; bullying can be overt or covert (Olweus, 2005).

Bully: person or group who devalues others to make themselves seem superior (Hazler, 1996).

Victim: recipient of physical and verbal abuse; may have an easily exploitable weakness.

Bully-Victim: student that has been bullied and has used bullying in return (Schwartz, Proctor, & Chien, 2001).

Bystander: student who witnessed bullying as it occurs (Carney & Merrell, 2001)

Cyberbullying: intentional and repeated harm inflicted through the use of computers, cell phones, and other electronic devices (Hinduja & Patchin, 2009).

Self-concept: totality of the individual's thoughts and feelings with reference to himself as an object (Rosenberg, 1965).

Self-Esteem: positive or negative orientation toward one's self (Rosenberg, 1965); the evaluative component of the self-concept.

Self-efficacy: individual's sense of competence or ability (Adler & Stewart, 2004).

Social networking website: online services that bring people of common interest together to share information through status updates, photos, and user profiles (Hinduja & Patchin, 2009).

Symbolic Interaction Theory: family theory that suggests human behavior is influenced by shared meanings and verbal/nonverbal actions and communications. Individuals develop their self-concept and identity through interaction in social settings (Boss et al., 1993).

Texting: sending short messages via cell phone (Hinduja & Patchin, 2009).

Summary

Cyberbullying is a type of aggression that is primarily utilized by adolescents and occurs through Internet and cell phones use (Hinduja & Patchin, 2008; Limber, 2011; Willard, 2006; Ybarra & Mitchell, 2004). Because prevalence rates have climbed to nearly 30%, cyberbullying has become a concern of educators and policymakers (Chibbaro, 2007; Willard, 2006). In order to alleviate the problem, researchers have suggested teaching Internet safety and social-emotional skills that focus on perspective-taking and empathy-building to middle school students (Chibbaro, 2007; Frey et al., 2005; Limber, 2011; Merrell, 2007; Willard, 2006).

Cyberbullying has been correlated with a number of negative outcomes for adolescents. Adolescence is a time when identity and self-concept are forming. Self-concept includes the components of self-esteem, self-efficacy, and self-identity

(Simmons et al., 1973). Interaction with others can affect the formation of these components (Blumer, 1969; Erickson, 1968; Simmons et al., 1973; Stryker, 2001). In order to increase the likelihood that these components will develop with positive outcomes, researchers have suggested allowing opportunities for positive interactions with peers (Crick & Dodge, 1994; Simmons et al., 1973). Additionally, because students enter social situations with varying schemas about how to interpret social cues or how to respond positively in social situations (Crick & Dodge, 1994), offering real life situations and opportunities for role play may also lead to increased self-efficacy. These assumptions are also consistent with Symbolic Interaction Theory (Blumer, 1969; Brown & Lohr, 1987; Dennis & Martin, 2005; Puddephatt, 2009; Stryker, 2001; Weigert & Gecas, 2005). Because researchers have linked involvement in cyberbullying to low self-esteem in middle school students (Hinduja & Patchin, 2010), the researcher developed a cyberbully prevention curriculum based on Symbolic Interaction Theory and Social Information Processing Theory.

The developed curriculum addressed self-esteem, as well as components of Internet safety and development of social-emotional skills, per recommendations of cyberbullying researchers and policy-makers. Teachers implemented the curriculum once per week for a period of 8 weeks with sixth-grade students. The researcher randomly assigned students to treatment and control groups, and the researcher measured effectiveness using pretests and posttests to assess cyberbullying behaviors and self-esteem. The researcher hypothesized that implementation of the curriculum would

correlate with: increased self-esteem, increased protective factors for victimization, increased socially responsible behaviors, and decreased cyberbullying behaviors.

Because the emotional effects of cyberbullying often carry over into the school day, the findings of this research may have important implications for practitioners as the findings may contribute to increased feelings of safety at school and a positive school climate, which will allow for more focus on learning. The following literature review includes a detailed examination of the concept of cyberbullying and its prevalence among middle school students; consequences of cyberbullying; self-esteem of the bully, victim, and bystander; implications for school personnel; curriculum development; and Symbolic Interaction Theory, Self-Esteem Theory, and Social Information Processing Theory.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The literature review will include a detailed examination of the concept of cyberbullying, a type of bullying present in an age of social media. This chapter will contain a description of characteristics of bullies, victims, and bystanders as well as the emotional impact of cyberbullying and the implications for school personnel. As both traditional bullying and cyberbullying have been directly linked to issues with self-esteem and negative behavior outcomes, the researcher will review prevention programs. Because very little research exists in the way of cyberbully prevention curriculum, the review will focus on traditional bully prevention and other successful, social-emotional learning programs. The researcher developed a preventative cyberbullying curriculum based on these findings. Since students' online interactions with each other have an influence on adolescent roles, behavioral expectations, and self-concept, the researcher incorporated Symbolic Interaction Theory (Blumer, 1969; Stryker, 2001) as a theoretical lens. Interpretation of social cues online can be more difficult than in person due to an absence of body/facial gestures and tone of voice. As such, the researcher will also explore Social Information Processing Theory (Crick & Dodge, 1994). Information about these theories is also included in this review of the literature.

Cyberbullying Defined

Throughout the reviewed literature, researchers have differentiated social or relational aggression from physical aggression or direct bullying (Crick & Grotpeter, 1995; Werner & Nixon, 2005). Relational aggression includes gossip, social exclusion, threats to withdraw friendship, or any other intentional acts to harm relationships (Crick & Werner, 1998). Researchers have found that girls, more often than boys, engage in these types of behaviors (Crick & Werner, 1998; Olweus, 1994). Whereas boys typically resort to physical aggression, girls use more interpersonal means because social status and popularity are more important to them (Moretti, Holland, & McKay, 2001; Olweus, 1994). More recently, technology has become a component in this type of aggression and has been referred to as "cyberbullying." Researchers have defined cyberbullying as "willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices" (Hinduja & Patchin, 2009, p. 5). Similar to traditional and relational forms of bullying, cyberbullying involves the components of (a) intended harm, (b) repetitive nature, and (c) an imbalance of power between bully and victim (Limber, 2011, Olweus, 1994). Cyberbullying is comprised of some unique characteristics that differentiate the act from more traditional forms of bullying. Primarily, a degree of perceived anonymity occurs when individuals bully online (Ybarra & Mitchell, 2004). Individuals who might not normally engage in face-to-face bullying may feel more secure doing so online because they feel that their identity is protected. Additionally, cyberbullies are unable to see the emotional harm they may cause their victims when they

are not face-to-face. This could possibly cause additional harm because bullies do not have a signal as when to stop. Whereas traditional forms of bullying end with the school day, victims of cyberbullying can be contacted in the privacy of their own homes 24 hours per day with use of the Internet or text. Online bullying can also be conducted with a much larger audience to witness the humiliation of the victim (Barnett, 2009; Hinduja & Patchin, 2008; Willard, 2006; Williams & Merten, 2008).

Some specific behaviors have been outlined by Willard (2007) which include: sending angry, rude, vulgar messages referred to as *flaming*; harassment or repeatedly sending offensive messages; repeatedly sending threats of harm or highly intimidating messages referred to as *cyberstalking*; denigration or posting untrue or cruel statements; pretending to be someone else to make that person look bad or place someone in danger; posting material that contains sensitive, private information about another person or forwarding private messages; engaging in tricks to solicit embarrassing information that is then made public; and exclusion or intentionally exclusion of a person from online groups. These behaviors may occur in the form of text, photos, drawings, videos, or audio, and they may occur in various forums including websites, blogs, e-mails, chats, instant messaging, social networking sites, and text messages/photos by use of cell phones (Willard, 2007). While researches have outlined these behaviors in the literature, students have reported that they were sometimes unaware they were engaging in behaviors that are considered cyberbullying (Vandebosch & Van Cleemput, 2008).

In order to gain a better understanding of how students define cyberbullying, Vandebosch and Van Cleemput (2008) organized a number of focus groups in which students indicated their personal concerns over Internet and mobile phone use. Cyberbullying was a concern, but students referred only to extreme cases and were unaware they had engaged in or experienced practices that would qualify as cyberbullying. This suggests that raising student awareness about cyberbullying behaviors is necessary. Students also indicated an important distinction between intentional harm and jokes that might be perceived as offensive by the victim. It may be beneficial to teach students perspective-taking and empathy, along with ways to protect themselves online, to alleviate some cyberbullying behaviors. Additionally, this research indicated that clarifying cyberbullying definitions for students increased reported prevalence rates.

Prevalence of Cyberbullying

Cyberbullying is an ongoing problem with estimated prevalence rates ranging from 15%–40% (Hinduja & Patchin, 2007; Kowalski & Limber, 2007; Lenhart, Purcell, et al., 2010; Ybarra & Mitchell, 2004). In one of the earliest studies focusing on Internet harassment, Ybarra and Mitchell (2004) found that nearly 10% of those surveyed reported being victims on online harassment, and 15% reported they had engaged in online aggression at least once in the past year. Of those harassed, more than half indicated they had been harassed more than once, and about 1 in 7 reported being harassed four or more times in the previous year. The work of Ybarra and Mitchell has

been seminal in nature. Additional researchers have examined prevalence rates by gender and by age, and many offer a breakdown of specific cyberbully behaviors. The following explores some of those studies.

In 2007, the Pew Research Center indicated that about one third of adolescents reported being victims of online abuse at some point (Lenhart, Purcell, et al., 2010). Specifically, of the 935 students surveyed, 15% indicated they had a personal message inappropriately forwarded or reposted, 13% had rumors or gossip spread about them online, 13% had been threatened by electronic means, and 6% had an embarrassing picture posted without permission. Findings from this study also indicated that girls more often than boys become targets of cyberbullying. Additionally, those that create online profiles for others to view are at a greater risk than those that have less active online lives according to this study. Lenhart, et al. (2010) found greater prevalence among girls aged 15-17 than girls 10-12 years of age. While cyberbullying appears to be prevalent among middle school-aged adolescents, findings about gender have not been as clear.

Peters, Kowalski, and Malesky (2010) found no differences by gender in their examination of cyberbullying behavior, and the researchers found the greatest prevalence occurred among middle school students. Kowalski and Limber (2007) suggested that those that are bullied more often report that the bullying occurs in the form of teasing and spreading rumors online. Upon examining those that have reported being victim to cyberbullying, 68% said they were teased online, 53% had rumors and lies spread about them online, and 35% experienced someone else using their name to pick on others

(Kowalski & Limber, 2007). Further, in this examination of 3,700 students, 18% said they experienced some form of cyberbullying in the last 2 months. Kowalski and Limber suggested that, as new technology emerges, this problem will only become worse. With every passing school year, additional studies are published that examine the growing prevalence rates and varying platform choices of students that are involved in cyberbullying (Kowalski & Limber, 2007; Lenhart, Purcell, et al., 2010). Regardless of new forms of technology, all students can benefit from social-emotional learning that addresses empathy, perspective-taking, and friendship skills. Students can apply these skills to all forms of bullying.

Similar to Kowalski and Limber (2007), Slonje and Smith (2008) found very little gender difference in those that reported involvement in cyberbullying. Slonje and Smith also reported that cyberbullying behaviors decrease with age but found no significant differences from ages 12 to 15. In examining devices used and time of day, more students reported cyberbullying through text while on school grounds, whereas more students revealed cyberbullying on the Internet during after-school hours. Cyberbullying prevalence rates were lower at 6% of students reporting being victimized online. In addition to prevalence, Slonje and Smith also examined reporting behaviors, an important component of cyberbully prevention. Reporting to an adult can be instrumental in alleviating cyberbullying (Chibbaro, 2007; Willard, 2006). Half of the students that reported being cyberbullied told no one, one third reported to a friend, and less than 10%

told a parent. No students reported the incident to a teacher or authority figure at school. The researcher will further examine reporting behaviors later in this review.

Tools Used for Cyberbullying

There are a variety of ways in which adolescents may engage in cyberbullying. As indicated by Willard (2006), students may use text, photos, drawings, videos, or audio to send cyberbully messages, and these messages may be sent via a variety of forums including websites, blogs, e-mails, chats, instant messaging platforms, social networking sites, and text messages and photos from cell phones. For the purposes of this study, the researcher will examine studies that pertain to texting and social networking. For the population being examined, previous survey results have indicated texting and social networking to be the primary platform choices for communicating with peers (Lenhart, Purcell, et al., 2010).

Texting

According to the Pew Internet and American Life Project (Lenhart, Ling, Campbell, & Purcell, 2010), texting has become the most preferred method of communication among teens between the ages of 12–17 years. Nearly three quarters of all teens are text-messagers, and one third of teens text over 100 messages per day. These numbers are up dramatically since 2006. When asked about concerns regarding their children owning cell phones, over one quarter of parents surveyed reported that their children had been harassed through text messages or bullied via cell phones. Additionally, nearly one fifth of parents reported that their children had either been

involved in or had been recipients of sexual text messages, referred to as "sexting." Additionally, research by the Pew Internet and American Life Project showed that nearly 60% of students reported using their phones to send text messages in their classes (Lenhart, Ling, et al., 2010). Additional studies have also shown that cyberbullying occurs inside schools because of cell phones (Slonje & Smith, 2008). These results all suggest that educators may become involved in cyberbullying instances occurring on school grounds. Other studies have also indicated that texting as a means of cyberbullying in which location does not matter (Dehue, Bolman, & Völlink, 2008; Didden et al., 2009; Hinduja & Patchin, 2008; Ortega et al., 2009; Smith et al., 2008; Subrahmanyam & Greenfield, 2008). Researchers from the Pew Internet and American Life Project reported that most adolescents own their first cell phones in middle school, making education about prevention a priority for this group (Lenhart, Ling, et al., 2010).

Social Networking

More recent researchers have examined trends of social networking and cyberbullying (Barnett, 2009; Ellison, Steinfield, & Lampe, 2007; Muise, Christofides, & Desmarais, 2009; Williams & Merten, 2008). Social networking profiles such as Facebook and MySpace allow students to make new friends online and to foster relationships with others whom they may already know in person. Originally, Facebook was designed to only be used by college students, and their use has only recently expanded to the adolescent population (Ellison et al., 2007). According to the Pew Internet and American Life Project, more than half of teenagers who have online access

choose to create a public profile on a social networking site to share their personal thoughts and feelings (Lenhart, Ling, et al., 2010). Being able to create an online public profile gives teens an opportunity to construct an online identity and to share with others how they view themselves. However, public profiles where individuals are free to comment can be an additional outlet for cyberbullying behaviors to occur. In one study, nearly 40% of adolescents who had social networking profiles reported being cyberbullied, compared to 20% who did not (Lenhart, Ling, et al., 2010). Cyberbullying through social networking sites is particularly problematic because of the potential for a large public audience. Even though a cyberbullying event may occur in a single incident, a number of peers may have access to the information, increasing the level of humiliation for cyberbully victims (Barnett, 2009; Williams & Merten, 2008).

Because all teens do not share the same set of beliefs about online conduct, Williams and Merten (2008) examined the social content shared by 100 teens and recorded appropriate versus inappropriate material posted. Williams and Merten concluded that approximately about 1 in 5 profiles exhibited inappropriate material, including sexually explicit photos and posts and noted minor occurrences of negative remarks about parents and peers. Approximately 8 out of 10 profiles indicated that the profile owner was engaging in at-risk behaviors, such as drinking, and 1 out of 4 profiles contained references to illegal drug use. Over a third of the profiles examined suggested violence against self or others. Williams and Merten noted an average of about 194 profile friends and online interactions occurring on average 2 and 3 days apart. The

population examined by Williams and Merten ranged in age from 16–18 years, but results from their research suggested that future researchers need to examine trends among younger students. One of the best ways to protect against cyberbullying victimization is to be cognizant of what photos and information are being posted on social networking sites (Hinduja & Patchin, 2010). Adolescents may benefit from increased awareness about this potentially problematic issue.

Impact of Cyberbullying

The consequences of cyberbullying can be far reaching and can impact not only the bully and victim but also their families, friends, and peers and their home, school, and other learning environments. Just as traditional bullying and victimization have been linked to loneliness, reluctance to attend school, peer rejection, and low self-esteem (Crick & Groteper, 1995; Olweus, 1994), so too have cyberbullying and victimization (Dehue et al., 2008; Hinduja & Patchin, 2010; Ybarra & Mitchell, 2004). The emotional and psychological impact of cyberbullying for the victim and bully can range from minor peer conflict to low self-esteem, depressed feelings, and even suicidal ideation (Hinduja & Patchin, 2010). Ybarra and Mitchell (2004) indicated that at least a third of those who reported being victims of cyberbullying also reported feeling "extremely upset," and an additional third reported at least one symptom of stress. Ortega, Elipe, Mora-Merchán, Calmaestra, and Vega (2009) found that adolescents feel alone, defenseless, stressed, afraid, and embarrassed after experiencing cyberbullying through Internet or text. The subclass of victims that become bullies appear to suffer from psychological symptoms

and may be more inclined to engage in other problem behaviors such as cigarette use, low commitment to school, and poor caregiver relationships (Ybarra & Mitchell, 2004). Hinduja and Patchin (2007) also found that those who become online victims may experience at-risk factors including lowering of grades, fighting with family members, and disagreeing with friends.

A number of cyberbullying cases have received national media attention in which the end result of cyberbullying has been suicide. However, suicide is not the typical result of cyberbullying. In 2006, Megan Meier committed suicide after some friends posed as a fictional boyfriend and engaged in chats with Megan to determine her loyalty as a friend (Parents: Cyber Bullying Led to Teen's Suicide, 2007). Many of these high profile cases that have ended in suicide have involved students who experienced a history of social and emotional issues (Hinduja & Patchin, 2010). In an examination of nearly 2,000 middle school students, Hinduja and Patchin (2010) found that victims of bullying and cyberbullying were more likely to have thoughts about or to attempt suicide. Cyberbullies were also at increased risk of suicidal ideation. As such, Hinduja and Patchin (2010) suggested that resources about suicide prevention be made available to students through programs that address bullying and cyberbullying.

Though it is apparent that there are emotional implications for students who are involved in cyberbullying, there is no clear distinction as to whether cyberbullying is the cause of these psychological issues or whether adolescents may already be suffering depressed feelings and low self-esteem that in turn cause them to be more susceptible to

cyberbullying and victimization. Some researchers have suggested students with certain characteristics may be more susceptible to cyberbullying or victimization (Hinduja & Patchin, 2012; Willard, 2007).

Characteristics of Cyberbullies, Victims, and Bystanders

Cyberbullies

There is mixed information about what characteristics might be common to cyberbullies. Some researchers have reported that this type of bullying is often used by social climbers who are trying to gain social status as part of the in-crowd (Chibbaro, 2007; Crick & Grotpeter, 1995). However, other researchers have indicated that bullies may suffer from social anxiety or low self-esteem (Hinduja & Patchin, 2010; Peters, Kowalski, & Malesky, 2010). In an examination of traditional bullying behaviors, Christie-Mizell (2003) found that negative self-concept is one of the most important predictors for elementary and middle school students who engage in bullying (Roeleveld, n.d.). Cyberbullies may seem to exhibit higher self-esteem than do their non-cyberbully peers, but cyberbullies' higher self-esteem may be inflated because their behavior is reinforced by their peers. In fact, Salmivalli, Kaukiainen, and Voeten (2005) suggested that bullies depend on their peer groups for feedback about their group status. As such, both changing peer feedback and working with bullies on other ways to support self-concept may help alleviate bullying of all forms.

Regardless of the motivation for cyberbullying, cyberbullies are most often in the same grades or classes at schools (Smith et al., 2008; Ybarra & Mitchell, 2004). Smith et

al. (2008) surveyed students about their online experiences and found that 20% of students reported having cyberbullies as classmates, 28% reported same-age cyberbullies in different classes, 22% reported cyberbullies who were not from their schools, and 70% were unsure of the identities of cyberbullies. Smith et al.'s results also indicated that in a little more than one third of cyberbullying incidences, there was only one bully but in 24% of cyberbullying incidences, there were two to three bullies. Research by Salmivalli et al. (2005) and Christie-Mizell (2003) may also suggest that peer influence plays a part in some cyberbullying episodes.

Ybarra and Mitchell (2004) found that bullies are more likely to engage in other at-risk behaviors such as cigarette and alcohol use. Additional findings from their study showed that parental monitoring was low and that time spent in online environments was high. Ybarra's and Mitchell's research also suggested that students who are bullied in school environments may often use the Internet as a tool to exert power over others as a means of retaliation because using the Internet allows them to keep their identities private. Ybarra and Mitchell found that 85% of students who were cyberbullies knew their targets, but nearly 70% of targets did not know the identities of their aggressors. Cyberbully victims who became bullies also displayed high rates of psychological distress and depressive symptoms. In a follow-up study, Ybarra and Mitchell (2004) found that aggressors also suffer from delinquency and poor parent-child relationships.

Victims

Though research regarding characteristics of cyberbullies may vary, characteristics of cyberbully victims have been better defined in research. Researchers have indicated that victims of online bullying have similar characteristics to victims of traditional bullying. In fact, there is a high correlation between students who are victims of traditional bullying and students who are victims of cyberbullying (Dempsey, Sulkowski, Nichols, & Storch, 2009; Gradinger, Strohmeier, & Spiel, 2009; Hinduja & Patchin, 2007; Katzer et al., 2006). Because cyberbullying is its own distinct form of bullying, some bullying characteristics are exclusive to cyberbullying, including time spent online, low parental supervision, and dishonesty about identity (Hinduja & Patchin, 2007; Mishna et al., 2009; Subrahmanyam & Greenfield, 2008).

One important predictor of victimization is increased time spent online (Katzer et al., 2009). In an examination of 1,700 students in grades 5 through 11, nearly three quarters of students reported chatting online on a regular ongoing basis. Of those students, one third indicated chat room harassment, and over one fourth reported repeated chat room harassment by the same bully (Katzer et al., 2009). Not only are these students spending more time in chat rooms, but they are also often forming false identities or lying about their ages or genders, which can put them in harm's way (Katzer et al., 2009). Hinduja and Patchin (2008) also surveyed nearly 1,400 Internet users to examine characteristics of cyberbully victims and found that computer proficiency and time spent online were positively correlated with cyberbullying behaviors and victimization.

Similarly, Didden et al. (2009) found that students who spent more than 1 hour per day online were more likely to be victims or bullies. Of those surveyed, nearly all students had access to the Internet at home, almost half had a computer in their own bedrooms, and nearly three quarters reported that their parents had no idea what activities they engaged in online. Low parental supervision has also been identified as a risk factor in both cyberbullying and victimization (Mesch, 2009; Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004). Similar to victims of traditional bullying, victims of cyberbullying suffer from low popularity at school, depressive symptoms, and low self-esteem (Didden et al., 2009; Katzer et al., 2009).

The Internet is a modern tool used by bullies, and it appears that students who have been victims of traditional bullying are choosing to cyberbully as a way to retaliate because there is no physical or social power differential online and because they can retaliate anonymously (Hinduja & Patchin, 2008). In fact, some studies have indicated that as many as 85% of cyberbullies have been victims of traditional, relational, or online bullying at one time or another (Didden et al., 2009).

Bystanders

Bullies and victims are not the only participants in cyberbullying. Researchers have established that the actions of bystanders can be instrumental in alleviating traditional and relational bullying (Burns et al., 2008; Salmivalli et al., 2005). Bystanders are students who witness bullying but who choose to do nothing to stop the act. Most students report feeling uncomfortable when they witness bullying, but they may

inadvertently engage in behaviors that perpetuate bullying (Frey et al., 2005; Salmivalli et al., 2005). Changing the behaviors of bystanders to support victims and increasing self-efficacy of bystanders to intervene or report have been shown to decrease traditional bullying (Frey et al., 2005). Because of the similarities between traditional, relational, and online bullying, bystander behavior may be important in reducing occurrences of cyberbullying. This is certainly worth exploration.

In a qualitative examination of student conformity in bullying incidences, Burns, Cross, and Maycock (2010) found that peers are more likely to intervene or report if they are friends with the people who are being bullied. Some students reported that they might join in the bullying if the bullies were their friends. If neither the bullies nor the victims were their friends, most students reported that they would do nothing or would ignore the situation (Burns et al., 2008). In a follow up study, Burns et al. (2010) also found that peer groups were highly influential in bullying behaviors. Burns et al. (2010) suggested that schools aim to reduce student tolerance of bullying and to encourage bystanders that they can make a positive difference. Increasing empathy toward victims and changing the attitudes of key participants can alleviate some forms of bullying. In addition to supporting victims, bystanders can make reports to appropriate personnel.

Smith et al. (2008) explored reasons why students do not report cyberbullying. Information gathered from focus groups indicated that students feel little can be done to prevent cyberbullying. Students suggested ignoring or blocking bullies, but reporting bullies to adults appeared to be uncommon. Smith et al. found that nearly half of the

participants in their focus groups told no one they were bullied, about a quarter told friends, and less than 15% told parents or adults at their schools. These findings are important because they suggest that education is needed for adults and students alike concerning the trend of cyberbullying and how to appropriately report cyberbullying.

Students may also be reluctant to report cyberbullying for fear of retaliation or of being labeled as a snitch (Chibbaro, 2007). Other findings (e.g., Limber, 2011) also indicated that students do not report cyberbullying because they fear loss of privileges for computers and cell phones. Students have also reported that adults usually do not notice this type of behavior, or when they do, they do not address it (Frey et al., 2005). Some researchers have suggested that students may view adults as uneducated about this trend and are reluctant to talk to adults as a result (Lin, Lin, & Wu, 2009). To address this problem, many researchers have implicated school personnel in encouraging students to report cyberbullying (Dempsey et al., 2009). Schools should offer anonymous reporting procedures for bystanders who do not feel comfortable making verbal reports. Researchers have also suggested that educators increase student self-efficacy about reporting by creating standardized procedures to report cyberbullying (Chibbaro, 2007; Mason, 2008; Willard, 2006).

Involvement of School Personnel

Because bullies and victims are often classmates, schools will inevitably become involved in cyberbullying. Online bullying and threats may occur off school grounds, but repercussions are brought to school and discussed among peers, causing various levels of

emotional distress. Parents of victims often seek help from school counselors, principals, or classroom teachers. Research about school involvement in cyberbullying indicates that various school personnel are needed to address cyberbullying at a variety of levels (Chibbaro, 2007; Mason, 2008). Beginning at the district level, policies about cyberbullying should be added to the Acceptable Use Policy (AUP) that students in most school districts are required to sign (Fredrick, 2009). School administrators should clearly state policies and consequences to be administered when policies are violated. Adequate prevention systems could be used to raise awareness about the schools' AUPs and the consequences for violation (Willard, 2006). In addition, school administrators should implement anonymous reporting systems for victims and bystanders (Chibbaro, 2007). Some researchers have suggested that school counselors implement preventative curricula for cyberbullying and create cyberbullying awareness campaigns for students, parents, administrators, and teachers. As part of awareness campaigns, school counselors could inform students, parents, administrators, and teachers about what behaviors are considered cyberbullying, what consequences would result from cyberbullying, what skills students might use to combat cyberbullying, and what kind of reporting systems might exist for victims and bystanders of cyberbullying.

Mason (2008) also suggested that administrators take a leadership role to develop school-based programs for cyberbullying prevention. Similar to Burns et al. (2010), Mason suggested empowering victims and teaching prosocial skills to all students, regardless of their levels of cyberbullying involvement. In a review of the effectiveness

of empirically based school programs that aid in prevention of traditional bullying, Mason reported that there is no current research demonstrating the effectiveness of prevention programs for cyberbullying. As such, administrators need to create and implement curricula for cyberbully prevention to address the needs of students.

A number of researchers have reported bullying prevention and intervention is an important obligation of school personnel, but implementing social-emotional curricula can sometimes be time consuming and expensive. Hinduja and Patchin (2007) suggested that school administrators expand upon current health education programs to include issues such as cybersafety, stress management, and legal implications of cyberbullying behaviors. Additionally, some researchers have shown that parents are unfamiliar with many new forms of technology, which further implicates school personnel in educating students about appropriate electronic behaviors (Dehue et al., 2008). Bully prevention and intervention laws in the state of Texas have recently been expanded to cover bullying by electronic means. Texas House Bill 1942 states that all schools in Texas will use evidenced-based practices to increase awareness and to educate students about bullying (Texas Association of School Boards, n.d.) which is monitored and enforced at the district level.

Curriculum Development

Much of the current research literature about cyberbullying implicates school counselors as the school personnel responsible for teaching students appropriate preventative strategies to alleviate cyberbullying behaviors (Chibbaro, 2007; Mason,

2008; Willard, 2006). Because cyberbully prevention and intervention is in its infancy, little in the way of complete curricula exists. Cyberbullying has been compared to more traditional and relational types of bullying. As such, researchers have suggested that counselors imbed cyberbully components in their preexisting programs bully for prevention (Frey et al., 2005; Limber, 2011; Willard, 2006).

A number of bully prevention programs have been examined across the literature in a variety of different contexts. Many of these programs have helped to reduce bullying behaviors and to increase social responsibility of bystanders (Andreou et al., 2008; Frey et al., 2005; Hart et al., 2009; Limber, 2011; Merrell et al., 2008; Newman-Carlson & Horne, 2004; Olweus, 2005; Salmivalli et al., 2005; Van Schoiack-Edstrom et al., 2002). However, no research literature currently exists containing an examination of cyberbullying prevention programs. The researcher of this study used the following review of cyberbullying prevention programs to develop a cyberbully preventative curriculum to use with middle school students.

The Olweus Bullying Prevention program is the most discussed curriculum in the literature. This program originated in Norway and has been effectively used for populations in both Norway and the United States (Limber, 2011; Olweus, 1994, 2005). The effectiveness of the Olweus Bullying Prevention program has been measured by students' self-reports about engaging in specific bullying behaviors. The 30-year-old program is designed for school-wide implementation and leads to systemic change at all grade levels. Adults in school communities are responsible for implementing the

program and for consistently enforcing rules and consequences for breaking rules. The program involves components at school, classroom, and student levels and requires community involvement. School administrators can adapt the program, but the program requires a 2-day training for staff, annual trainings thereafter, and 1 year of consultation from the program developer (Limber, 2011). Though this program is evidence based and has been established as being effective, it may not be practical in situations in which instructional time is limited and economic resources are unavailable.

Another curriculum that appears to be well represented in research literature about bullying is the Steps to Respect and Second Step curriculum developed by Frey et al. (2005). Like the Olweus Bully Prevention Program, the Steps to Respect and Second Step curriculum is extensive in nature and can be used to address systemic changes to school policy and staff training. Unlike the Olweus Bully Prevention Program, the Steps to Respect and Second Step curriculum is designed only to be implemented at the classroom level by teachers. The curriculum addresses students' beliefs about bullying and deficits in their social-emotional skills

In a longitudinal examination of 714 middle school students, Van Schoiack-Edstrom, Frey, and Beland (2002) found that a treatment group of students who had participated in the Steps to Respect and Second Step curriculum for the second consecutive year were less likely to favor aggression toward other students or social exclusion and were more like to demonstrate more self-efficacy in prosocial skills. In addition, delivering more frequent lessons to students in the first year seemed to decrease

certain types of aggression (Van Schoiack-Edstrom et al., 2002). Results from the study by Van Schoiack-Edstrom et al. (2002) are a good indication that interventions to target physical aggression could also be successful to combat relational aggression. As suggested by Limber (2011), it may be feasible to use bully prevention strategies when working with students to combat cyberbullying.

In another examination of the Steps to Respect and Second Step curriculum, Frey et al. (2005) suggested that teaching social, emotional, and friendship skills to students may not only reduce victimization in bullying but may also increase bystander responsibility. Frey et al. found a reduction in peer-accepted bullying behaviors and an increase in bystander behaviors in a sample of 620 elementary school students who had participated in the Steps to Respect and Second Step curriculum. Frey et al. determined that bullying and aggression were more accepted by students in the control group. A sense of responsibility to stop friends from bullying others was also absent from the control group. Teachers rated students in the treatment groups as being more socially competent and engaging in more agreeable peer interactions. The implications of this study suggest that bystander behavior be addressed by teaching friendship and social-emotional skills as well as by changing peer normative beliefs about bullying.

Though long-term, school-wide programs have proven successful, some researchers have experimented with more truncated versions of social-emotional curricula. Merrell, Juskelis, Tran, and Buchanan (2008) examined the implementation of 10 weeks of social-emotional learning using the Strong Kids and Strong Teens curricula.

The 45-minute lessons focused on understanding emotions of self and others, identifying errors in thinking, changing beliefs, practicing conflict resolution skills, managing stress, and setting goals. Merrell et al. conducted three separate studies with the following participants: 120 students in fifth grade, 65 students in middle school, and 14 students in high school special education who had been labeled as emotionally disturbed (Merrell et al., 2008). All three studies yielded statistically significant findings, suggesting that participation in brief social-emotional learning can impact student knowledge and behavior.

In another study examining the implementation of brief social-emotional curricula, Andreou, Didaskalou, Vlachou (2008) developed an 8-week program to address bullying behaviors in school. As recommended by Salmivalli et al. (2005), the program by Andreou et al. contained the three necessary components: (a) raising awareness to make students aware that bullying is problem and to educate them about the various roles that people play in bullying and about the effects and consequences of bullying, (b) self-reflecting in which the teacher awarded students the opportunity to express personal feelings associated with bullying, and (c) having students commit to changing behaviors and using new skills to combat bullying. Andreou et al. found positive short-term outcomes for student attitudes and self-efficacy to intervene in a bullying situation. Andreou et al suggested teaching creative problem-solving, involving adults, and supporting victims as long-term continuing measures to prevent bullying.

Both Merrell et al. (2008) and Andreou et al. recommended following up with booster lessons to sustain new skills.

Though including the whole school community in intervention plans has proven successful (Frey et al., 2005; Olweus, 2005; Limber 2011), some researchers have found that this may not be necessary. Newman-Carlson and Horne (2004) implemented a "Bully Busters" prevention program only at the teacher level to train teachers to recognize bully behavior and to intervene when necessary. Newman-Carlson and Horne suggested that this method is more cost-effective and time efficient than is trying to implement school-wide intervention plans. Though previously cited researchers have linked reduction in bullying to the whole school approach, few researchers have examined the effectiveness of individual components of social-emotional programs (Newman-Carlson & Horne, 2004). Newman-Carlson and Horne were able to help reduce bullying by focusing specifically on staff intervention. Because many state initiatives require school counselors to engage in psychoeducation directed at particular components of social-emotional life without a budget or curriculum, it may be necessary to further examine interventions that are brief and cost-effective.

Hart et al. (2009) also conducted research on brief social-emotional intervention using one unit from the Steps to Respect and Second Step curriculum (Frey et al., 2005). This unit consisted of 5 to 8 lessons regarding impulse control and problem-solving. Using pretest and posttest assessments of 149 elementary school participants, Hart et al. found significant increases in the social-emotional knowledge of participants in the

treatment group. Hart et al. cited using a control group as one strength of their research design. To effectively measure the development of social-emotional skills in students, many other research teams have also used control groups (Frey et al., 2005; Merrell et al., 2008; Salmivalli et al., 2005). Hart et al. also suggested that appropriate assessment tools are needed to effectively measure behavioral change because appropriate assessment tools seems to be a limited resource.

Theoretical Rationale

Symbolic Interaction Theory

A number of changes are taking place in early adolescence that may contribute to the self-esteem and behavior of middle school students. Physical maturation, cognitive advancements, and social- emotional changes are occurring at differing rates. Young adolescents remain attached to parents, but their peer groups become increasingly more important (Erikson, 1968). Middle school students depend on their daily interactions with peers to gather information about their appearances and behaviors. Peer feedback is instrumental in how adolescents choose to conduct themselves.

The theory that focuses on the meanings people make of everyday interactions is called Symbolic Interaction Theory (Blumer, 1969). Symbolic Interaction Theory is based on the assumption that meanings are learned in social interactions with others, which influence how one chooses to behave in given social situations. A number of researchers have examined self-esteem using Symbolic Interaction Theory as their framework. This theory supports defined roles for individuals, and with those roles come

expected behavioral norms. For instance, an adolescent may identify as a son or daughter and in that role, he or she may act respectfully and obediently. In addition to identifying as a son or daughter, an adolescent may also identify as a student in another role and follow those behavioral expectations. An adolescent may further identify as a friend, and the behavioral expectations for this role would be different from that of child and student. Each role can carry separate and meaningful behavioral expectations and will influence interactions with others and with the self-concept. In an examination of Symbolic Interaction Theory, Kanter (1969) suggested that Symbolic Interactionists choose to study the processes and motivations behind behaviors that are modified to suit social or group processes. As such, Symbolic Interaction Theory was perfectly suited as the theoretical lens through which the researcher could examine adolescent interactions in online environments.

Symbolic Interaction Theory was developed by Blumer in 1969. As previously mentioned, important components of Symbolic Interaction Theory include identities, roles, interactions, and contexts. Identity is the meaning an individual assigns to his or her roles (Blumer, 1969; Boss et al., 1993; Stryker, 2001). Roles are divided into role-taking and role-making. Role-taking is the act of an individual taking on behaviors that are expected of a particular role, and role-making is the act of an individual modifying a particular role. Symbolic Interaction Theory is based on the assumption that learning and participating in roles are important to identity formation. The interaction component of Symbolic Interaction Theory refers to both verbal and nonverbal cues in the presentation

of the self and to cues taken from other individuals in social interactions. More important relationships and interactions with people affect how we feel about ourselves more. The context component of Symbolic Interaction Theory refers to how behavior is shaped by the culture in which interactions take place (Boss et al., 1993).

Symbolic Interaction Theory has been used as theoretical framework in many studies examining self-esteem. In fact, Burns et al. (2010) employed Symbolic Interaction Theory to investigate how friends can positively influence bullying behaviors. Burns et al. (2010) indicated that development of self is relevant to engagement in bullying behaviors. According to theory, the self emerges from the ability to take the perspectives or roles of others. Burns et al. (2010) hoped to change the identity of the identified bully to that of a nonbully with the intervention of a bully prevention program that focused on perspective-taking. Burns et al. (2010) also examined the behavior of bystanders and determined that if friends were supportive of bully behaviors, bully behaviors were unlikely to stop. However, Burns et al. (2010) also found that some bullies and bystanders would choose to change their friendship group because the bullying behavior was not a true reflection of their selves. Burns's et al.'s (2010) findings also indicated that students' desire to conform to norms of their peer groups motivated their behaviors. These findings are highly relevant to this study because this researcher's goals include teaching perspective-taking and bystander responsibility. Teaching new norms may also reduce cyberbullying behaviors.

Similarly, Brown and Lohr (1987) investigated peer affiliation and self-esteem using Symbolic Interaction Theory and suggested peer reactions highly influenced identity and self-esteem in the middle grades. Brown and Lohr found that higher status in peer groups was associated with higher self-esteem and that lower status in peer groups was associated with lower self-esteem. Symbolic Interaction Theory was a useful framework in this study because adolescents begin to turn from their parents to their peer groups for reflective feedback (Brown & Lohr, 1987). As such, social interactions with peers can be influential. Brown and Lohr suggested that self-perception about academics and athletics affects self-esteem and self-concept, but this was not the case for popularity. Students look to their peer groups for feedback about their popularity and status in their peer groups. For this study, the researcher believed that teaching social skills to bystanders could be instrumental in reducing bullying behaviors because, as previously explained, bullies look for cues from their peer groups to continue to engage in bullying behaviors. If bullies lack of support from bystanders, bullies may choose more favorable behavior.

Self-Esteem Theory

In addition to Symbolic Interaction Theory, the researcher of this study used Self-Esteem Theory as a framework for this stud. Self-Esteem Theory is based on the work of Simmons, Rosenberg, and Rosenberg (1973) who identified self-esteem as the degree to which an adolescent feels positively or negatively toward himself or herself. Self-Esteem Theory is only one component of the broader self-concept, which also includes self-

efficacy and self-identity (Simmons et al., 1973). From their study of 2,625 participants, Simmons et al. concluded that adolescents are more likely than are younger children to view themselves unfavorably, especially during the transition from elementary to middle school. Students who participated in the study by Simmons et al. displayed higher levels of self-consciousness and lower levels of self-esteem. In fact, 41% of students in their first year of middle school reported low self-esteem. Because self-image does not become stable until late adolescence, students in middle school may benefit from positive interactions with others to boost self-esteem (Simmons et al., 1973). Simmons's et al.'s findings were important for this study for a number of reasons. First, the curriculum for the cyberbullying prevention program was specifically designed for sixth-graders and addresses the difficulty surrounding the transition from elementary school to middle school, especially the difficult of making new friends and getting involved. Additionally, self-esteem was a primary focus of this study and was assumed to be correlated with cyberbullying behaviors. The researcher of this study hypothesized that as self-esteem increased, cyberbullying behaviors and victimization would decrease. Lastly, the researcher of this study assumed that all students would benefit from being involved in positive peer interactions and self-reflections that focused on increasing students' self-esteems.

Social Information Processing Theory

Social Information Processing Theory is based on how children use of social cues to respond in social situations. Social Information Processing Theory suggests that

children engage in six steps of processing social cues: (1) encoding the social cue, (2) interpreting the cue, (3) clarifying the response goal, (4) constructing or selecting from a previously used response set, (5) deciding on a response, and (6) enacting the response behavior. Social Information Processing Theory was originally proposed by Dodge in 1986 as a linear model and was reformulated in 1994 by Crick and Dodge as a circular model. Social Information Processing Theory has most often been used to examine aggressive behavior. Children have had varying previous experiences, so their interpretations of and responses to social cues will differ. For example, students who may not have experience with prosocial response sets may react aggressively to some social situations. Additionally, emotion may play a role in students' responses, which may lead to "reactive aggression" instead of goal-directed "proactive aggression" (Crick & Dodge, 1994, p. 81). Reactive aggression is one of the most studied components of Social Information Processing Theory. When children interpret social cues, children can mistake the intent of other children in given social situations and can respond aggressively (Crick & Werner, 1998). As such, teaching students perspective-taking and problem-solving may alleviate mistaken assumptions that often lead to an aggressive reaction.

In an examination of students' reactions in social situations, Camodeca, Goossens, Schuengel, and Terwogt (2003) studied the responses of bullies, victims, and bully/victims across a 2-year period. Camodeca et al. used Social Information Processing Theory as the framework for their study. To assess social intent and emotion, Camodeca

et al. provided participants with two different types of scenarios to which they were asked to provide the solutions: provocation scenarios and ambiguous scenarios. Qualitative results for the provocation scenarios were coded in five categories: aggressive responses, assertiveness, asking for help from an adult or peer, avoidance, or irrelevance if answers did not fit the questions or if participants did not answer the questions (Camodeca, Goossens, Schuengel, & Terwogt, 2003). Additionally, Camodeca et al. rated participants' responses to ambiguous scenarios according to the following: if the proposed perpetrator was mean, if they engaged in a behavior on purpose, if they felt the perpetrator was guilty, how angry they were as the supposed victim, and how much they felt like doing something back. The findings from the study by Camodeca et al. suggest that students may benefit from learning perspective-taking and communication skills, which can help students appropriately interpret social cues. Additionally, positive peer interactions in real-life scenarios and role play may help students develop more appropriate response sets. As such, a curriculum that incorporates the assumptions of Social Information Processing Theory may be appropriate for use with students in cyberbully prevention.

Camodeca et al. (2003) examined the first three steps related cue interpretation and goal clarification in Social Information Processing Theory, and Crick and Werner (1998) investigated the last three steps related to decisions about responses. Crick and Werner reported that social decision-making involves several factors: if the child feels the decision is morally acceptable, what the child expects as outcomes from the decision, if

the child feels confident in enacting the decision, and how often the child engages in this response. As with most of their studies, Crick and Werner used the process of peer nomination to locate aggressive students in classroom situations and then examined results in relation to which groups of students were nominated by their peers (aggressive, relationally aggressive, or not aggressive). Crick and Werner then assessed all students by asking how they might respond in hypothetical situations, specifically examining students' expected outcomes, self-efficacy, use of particular aggressive strategies, and moral feelings about aggressive acts. Crick's and Werner's results indicated that more aggressive students favor aggressive responses because these responses provide them with favorable outcomes. For example, aggressive students might think it is appropriate to push someone in line if the outcome for them is that they move up in the line. In contract, nonaggressive students did not favor a socially inappropriate response set.

Few researchers have explored Social Information Processing Theory in relation to cyberbullying, but Nicol and Fleming (2010) studied the normative beliefs used by students who use mobile phones to engage in aggression. Nicol and Fleming suggested that normative beliefs and social information processing are highly related because their results revealed that when students believe that mobile phone aggression is an acceptable way to meet social goals, they use it more often. These students believe that the aggressive behavior of others is intentional and goal oriented, so they respond in a retaliatory nature. As such, Nicol and Fleming suggested that intervention programs should focus on social cognitive strategies and problem-solving skills and that by

changing normative beliefs, students can learn to select more desirable response behaviors. An appropriate program to combat cyberbullying might focus on changing students' beliefs about the acceptability of cyberbullying and to offer them alternative response patterns to meet their social goals.

Conclusion

The researcher used this literature review to refine the purpose this study. Cyberbullying is a prevalent problem among students in middle school and is likely to become worse as new forms of technology are introduced (Peters et al., 2010). Cyberbullying behaviors are closely related to that of traditional and relational bullying, but there are different considerations among the different types of bullying. Bullies, victims, and bystanders play similar roles in all three types of aggression. As has been established, victims appear to suffer from depressive symptoms and low self-esteem (Dehue et al., 2008; Hinduja & Patchin, 2010; Ybarra & Mitchell, 2004). Traditional and relational bullies do not appear to exhibit low self-esteem, but as many as 85% of cyberbullies have suffered victimization in the past (Dempsey et al., 2009; Gradinger et al., 2009; Hinduja & Patchin, 2007; Katzer et al., 2009). As a result, students who engage in cyberbully behavior may benefit from social-emotional learning that fosters better self-concepts. Additionally, bystanders can also benefit from greater self-efficacy in reporting and intervening when they witness to bullying behaviors (Burns et al., 2008; Salmivalli et al., 2005). Parental influence is important, but school personnel have been implicated as being primarily responsible for educating students about cyberbullying

(Chibbaro, 2007; Mason, 2008; Willard, 2006). However, most school administrators do not have the money to contribute to social-emotional curricula, nor do administrators willingly sacrifice instruction time for social-emotional goals. Therefore, school counselors must create social-emotional curricula that are not expensive and do not take excessive instruction time away from teachers.

To date, there is no research available about developing, implement, and measuring the effectiveness of cyberbullying prevention programs that have been implemented in middle schools (Mason, 2008). The following chapter, the researcher will explain how the methodology of this study is based on using effective research-based strategies to develop curriculum for cyberbullying prevention programs, implementing those programs in middle school, using treatment and control groups and valid and reliable instrumentation to measure the effectiveness of the programs.

CHAPTER III

METHODOLOGY

After the literature review, the researcher determined that cyberbullying is an ongoing problem in America's pre-adolescent and adolescent population. Many researchers have suggested that schools need preventative programs to educate students about cyberbullying, but currently, few programs exist. Some researchers have established a correlation between cyberbullying and victimization behaviors and low self-esteem (Hinduja & Patchin, 2010). Low bystander responsibility has also been associated with lower levels of self-concept and self-efficacy about intervention behaviors. As such, the researcher of this study designed the curriculum for the cyberbullying prevention program used in this study based on evidence from the literature review and the best practices necessary to address the issues of cyberbullying.

The researcher used the Symbolic Interaction Theory to develop the curriculum for the cyberbullying prevention program used in this study. Symbolic Interaction Theory addresses how individuals develop their self-concepts based on the reactions of others in social settings. Therefore, the researcher of this study designed the curriculum for the cyberbullying prevention program to address cyberbullying behaviors and the self-esteem of cyberbullies, victims, and bystanders. Through this study, the researcher examined the effects of this preventative cyberbully program on a population of sixth-grade students. In this chapter, the researcher will describe the procedures of this study,

the measures for data and human protection, the variables of this study, and the statistical analyses that the researcher planned to conduct.

Additionally, the researcher used Social Information Processing Theory to develop the curriculum for the cyberbullying prevention program used in this study. This theory is a six-step process that addresses how children interpret and react to social cues in social situations. The six steps include the following: (1) encoding social cues, (2) interpreting social cues, (3) clarifying response goals, (4) constructing or selecting from previously used response sets, (5) deciding on responses, and (6) enacting responses (Crick & Dodge, 1994). Because students enter social situations with varying levels of experience, they will not all respond similarly to given social stimuli. When students formulate responses, they may not have schema that include positive or appropriate reactions if they have not had experiences to develop those reactions. A primary aim of the curriculum for the cyberbullying prevention program used in this study was to allow students' to have opportunities to observe or engage in positive interactions in tough social situations and to promote positive outcomes such as self-protecting, reporting, intervening, and supporting victims in cyberbullying situations. Students were also given opportunities to brainstorm possible motives of others in social situations because students can erroneously interpret others' intentions. To accomplish these goals, the researcher used Social Information Processing Theory to help students develop positive self-schemas based on successful social interactions with others (Crick & Dodge, 1994).

In this study, the researcher examined the effects of this preventative cyberbully program on a population of sixth-grade students. In this chapter, the researcher will describe the procedures of this study, the measures for data and human protection, the variables of this study, and the statistical analyses that the researcher planned to conduct.

Research Questions and Hypotheses

Research Questions

RQ_1: Will sixth-grade students who participate in a cyberbullying prevention program demonstrate fewer occurrences of cyberbullying behaviors at posttest than at pretest than will students who do not participate in a cyberbullying prevention program?

RQ_2: Will sixth-grade students who participate in a cyberbullying prevention program demonstrate greater bystander responsibility behaviors (e.g., reporting, supporting, and intervening) than will students who do not participate in a cyberbullying prevention program?

RQ_3: Will sixth-grade students who participate in a cyberbullying prevention program report greater self-esteem, self-efficacy, and self-concept at posttest than will students who do not participate in a cyberbullying prevention program?

Hypotheses

H_{01}: Sixth-grade students in the treatment group who participate in the 8-week cyberbullying prevention program will show a greater decrease in the frequency of self-reported cyberbullying behavior and victimization than will sixth-grade students in the control group who do not participate in the 8-week cyberbullying prevention program.

H_{02}: Sixth-grade students in the treatment group who participate in the 8-week cyberbullying prevention program will show a greater increase in bystander responsibility (e.g., reporting, supporting, and intervening) than will sixth-grade students who do not participate in the cyberbullying prevention program.

H_{03}: Sixth-grade students in the treatment group who participate in the 8-week cyberbullying prevention program will show a greater increase in self-esteem, self-reporting, and self-efficacy than will sixth-grade students who do not participate in the cyberbullying prevention program.

Permission to Conduct Research

The researcher obtained written permission from the campus principal and district superintendent to conduct the study (see Appendix A). Additionally, the researcher obtained support from the sixth-grade health teachers on campus, and the teachers agreed that implementing the cyberbully prevention program could improve school climate. Other campus personnel who agreed to speak about their own areas of expertise were the

campus assistant principal, the school resource officer, and the school librarian. In addition, two campus counselors helped the researcher implement the curriculum.

Population and Sample

The population in this study contained all sixth-grade students ranging from 11–13 years of age at a suburban middle school in the southwestern United States. Approximately 345 students were invited to participate in this study as part of the treatment or control group; of the 345 who were invited, 191 students agreed to participate. Regardless of whether or not they participated as part of the study, all sixth-grade students at the participating school received the cyberbullying prevention education at the conclusion of this study in the spring semester of the 2011–2012 school year; however, only those who agreed to participate were included in the data of this study.

Recruitment of Participants

Parents of participating students were made aware of this study and of the cyberbullying prevention program through an automated school e-mail, the Parent-Teacher Association (PTA) newsletter, and a recruitment letter. All participating students received the recruitment letter attached to their December progress reports (see Appendix B). In the recruitment letter, the researcher fully explained this study and the curriculum to be implemented. The recruitment letter notified parents that all participating students, regardless of the group to which they were assigned for the study, would receive the 8-week training in cyberbully prevention by the spring semester of the school year. The release portion of the recruitment letter asked for parental consent and

student assent to participate in this study. Parents could indicate "yes, I would like for my student to participate in the dissertation study" or "no, I do not want my student to participate in the dissertation study." All students who returned the permission form received activities tickets from their sixth-grade teachers that they could use toward an activity later in the semester. Activities tickets are regularly awarded to sixth-grade students for appropriate behavior and are later redeemed for participation in events such as ice cream socials and outside recess time. All students who opted to participate in this dissertation study were also entered in a drawing for a variety of gift cards worth $25, $10, and $5 that they could use at local establishments. Gift cards included two $25 iTunes cards, three $10 iTunes cards, two $10 AMC movie gift cards, two $10 Pizza Hut gift cards, and four $5 Sonic gift cards. Drawings for gift-card winners occurred on the last day of curriculum implementation.

Protection of Human Participants

The Institutional Review Board (IRB) at Texas Woman's University (TWU) grants approval for research studies in which the protection of human subjects is ensured. Permission to conduct research with sixth grade students was granted by the IRB in December of 2011, a month prior to participant recruitment (see Appendix C). Upon recruitment, participants were made aware that participation in this research study involved potential benefits and potential risks.

The comprehensive benefits of participating in this study included increased awareness about cyberbullying prevalence, enhanced online and offline social-emotional

skills, increased awareness about internet safety, and increased awareness about the impact and consequences of cyberbullying. Another benefit of participating in this study was increased awareness of bystander responsibility to positively affect school climate and learner performance. Additionally, the preventative program included homework assignments that directed students to engage in self-reflection about their own personal strengths and online behaviors. Participating in these homework assignments benefited students by increasing their self-esteem, a component of the self-concept (Rosenberg, 1965).

A potential risk of participating in this study included students' missing health class. Students who participated in the treatment group received the curriculum for health body systems when they returned to health class after 8 weeks in the cyberbullying prevention program. Students in the treatment group received the same curriculum as did their peers in the control group, but the curriculum for students in the treatment group may have been delivered with different instructors using different methods. Another potential risk of this study involved students who had been cyberbullied in the past and who may have experienced negative emotions while participating in this study. If students experienced negative emotions while participating in this study, then students could visit a student assistance counselor who was on campus to help as needed. Additionally, a list of community counselors was available for parents who wanted to seek outside counseling services. Students were permitted to withdraw from this study at any time.

In the assessments of pretest and posttest data, all identifying information was excluded. These assessments were conducted through PsychData so that only the research team had access to data. Data was removed from the program when the dissertation study was completed. PsychData is an online survey-hosting site that uses a secure URL address and that can be set up to keep survey responses anonymous. Only the researcher, the researcher's advisor and research committee, and the statistician had access to the surveys.

The researcher was absent from the computer laboratory where students completed the assessments. Trained counselors administered and supervised the assessments and had a list of vocabulary words available if students had questions about word meanings. Throughout the course of the curriculum, the researcher assigned and examined student homework for participation grades. Participation grades were unrelated to the results of this study but were necessary for students to receive grades for their health class. One of the assisting counselors calculated and relayed participation grades to the team of health teachers.

All sixth-grade students were offered equal access to the benefits of the curriculum of the cyberbullying prevention program. Students who participated in the control group also received the preventative curriculum in the 8 weeks after this study concluded.

Data Collection and Instrumentation

Quantitative Data Collection

Quantitative data were collected about student self-esteem using the Rosenberg (1965) Self-Esteem Scale, which is a 10-question survey assessing the self-esteem of adolescents (see Appendix D). Data from this assessment tool were examined prior to the group intervention and again at the completion of the program. Quantitative data were also collected through an abbreviated version of the 30-question Cyber Savvy Survey (Willard, 2011). The researcher adapted the original Cyber Savvy Survey to meet the needs of this specific study, and the Adapted Cyber Savvy Survey contained 12 questions to measure social networking use, cyberbullying behavior and experience, and bystander responsibility (see Appendix E). Of the 12 questions, 9 were quantitatively measured, and 3 were qualitatively measured. A demographic questionnaire was also used to collect demographic data, which were quantitatively analyzed (see Appendix F).

Qualitative Data Collection

Data from 3 questions on the Adapted Cyber Savvy Survey were qualitatively measured (Willard, 2011). These three questions asked students to list (a) methods they might use to reduce the possibility of cyberbullying victimization and other things they might do to protect themselves online, (b) reasons why bystanders might not respond when they witness or are aware of cyberbullying, and (c) thoughts or feelings they experience when they witness students being cyberbullied. This qualitative data was

analyzed and reported using frequencies and percentages. Procedures for analysis of this data are further explained in the Data Analyses section of Chapter 3.

Instrumentation

Instrumentation for this study included the Adapted Cyber Savvy Survey (Willard, 2011), the Rosenberg (1965) Self-Esteem Scale, and a demographic questionnaire.

Adapted Cyber Savvy Survey. Appendix E contains the adapted version of Willard's (2011) Cyber Savvy Survey, which included 12 items and took approximately 10–12 minutes for students to complete. The Adapted Cyber Savvy Survey assessed experiences that students may have had in the past 2 months regarding negative online or cell phone behaviors. The Adapted Cyber Savvy Survey also assessed bystander behaviors. The original version of Willard's survey was called Student Needs Assessment and was a 30-question survey that was published in 2007. Willard changed the name and amended the survey in 2011, expanding on the previous survey and adding questions about social networking. The 2011 version of the Cyber Savvy Survey has not yet been published, but Willard gave the researcher of this study access to the most recent version of survey. The researcher of this study further amended the most recent version of the survey with Willard's permission. The purpose of these amendments was to specifically assess behaviors that pertain to the research questions of this study. The questions retained on the Adapted Cyber Savvy Survey specifically addressed cyber victims' experiences, students' protecting themselves online, bystanders' feelings and

behaviors (intervening, reporting, and supporting), and cyberbullying occurrences. Minor modifications were made to some of the questions based on suggestions made by other researchers in the field to add face validity to the instrument (i.e., changing the time frame, adding anchors, etc.). Willard's original surveys—the Student Needs Assessment and the Cyber Savvy Survey—were designed for educator use and were not previously validated through statistical analysis. As such, the statistician for this study conducted a factor analysis following data collection to verify subscales on the Adapted Cyber Savvy Survey for victimization, cyberbullying, and bystander behaviors.

Rosenberg Self-Esteem Scale. The Rosenberg (1965) Self-Esteem Scale is a widely used and reliable scale that measures self-esteem in adolescents. This is a 10-item scale based on a 4-point Likert Scale in which answers range from "strongly agree" to "strongly disagree" (see Appendix D). The questions of the Rosenberg Self-Esteem Scale focus on how adolescents feel about themselves and their qualities. This scale was developed in the 1960s to use on a population of over 5,000 adolescents. Rosenberg, Schooler, and Schoenbach (1989) reported that the scale yielded test-retest correlations in excess of .80 and a Cronbach's alpha of .77 to .88. Because self-esteem and cyberbullying behaviors have shown to be correlated, an aim of this study was to increase self-esteem through self-reflection homework and to provide opportunities for students to have positive experiences with their peers. Rosenberg et al. suggested that self-esteem is stable in adults but still forming in adolescents. Additionally, self-esteem is one component of the broader self-concept. Rosenberg et al. suggested that self-esteem

cannot be taught but can be developed through successful interaction with others. Part of the theoretical framework for this study, Symbolic Interaction Theory, is based on the assumption that self-concept is developed through feedback that we receive from others (Blumer, 1969; Boss et al., 1993; Stryker, 2001). Additionally, individuals will adopt socially appropriate roles that are congruent with feedback gained from peer interactions (Boss, 1993). This makes establishing healthy online behavior as normative an important component of the proposed curriculum.

Demographic questionnaire. The online demographic questionnaire contained 13 items to collect demographic data such as gender, age, ethnicity, grades in school, access to Internet and cell phones, and parental monitoring (see Appendix F). This questionnaire took approximately 5 minutes for students to complete.

Timeline for Data Collection

Data from pretesting were collected during the second week of January 2012. Pretest data included data from the demographic questionnaire, the Rosenberg (1965) Self-Esteem Scale, and the Adapted Cyber Savvy Survey (Willard, 2011). These assessment tools were delivered in a particular order to avoid having information in one assessment influence information in another assessment. The Rosenberg Self-Esteem Scale was administered first so that the other instruments would not influence how students felt about themselves. The demographic questionnaire was administered second, and the Adapted Cyber Savvy Survey (Willard, 2011) was administered last. It was assumed that students who have experienced cyberbullying in the past may have

experienced negative memories while participating in this study, negative memories that could have influenced their responses on the Rosenberg Self-Esteem Scale. For this reason, the researcher chose to administer the Rosenberg Self-Esteem Scale first.

During the second week of January 2012, students were assigned to treatment and control groups. Students in the control group remained in their regular health class and received the body systems curriculum delivered by the health educator. Students in the treatment group reported to the cafeteria and received the cyberbully prevention curriculum. Cyberbully prevention curriculum was implemented for an 8-week period on Tuesdays when students in the control group participated in health class. The 8-week curriculum was comprised of (a) an introductory lesson, (b) a lesson about adjusting to middle school and making friends, (c) a lesson about internet safety, (d) a lesson about traditional bullying and relationship aggression, (e) a lesson about the prevalence of cyberbullying, (f) a lesson about the consequences of cyberbullying, (g) a lesson about texting and social networking, and (h) a lesson about coming together and making a difference (see Appendix G). Curriculum for the cyberbullying prevention program was completed before spring break during the second week of March.

Posttest data were collected at two separate points: immediately following curriculum completion and after an additional 3-week period. The rationale for collecting postdata twice was to test for retention or actual change in behavior and self-esteem (Flay et al., 2005).

Procedure

Before the Program

Following approval from dissertation committee and IRB, information was highlighted in the PTA newsletter informing parents that all sixth-grade students were invited to participate in an upcoming study examining the effects of cyberbully education on student behavior and self-esteem. Additionally, an e-mail containing the same information was sent automatically to all sixth-grade parents. The information contained in the PTA newsletter and the e-mail contained excerpts from the formal recruitment letter that went home to parents with students' progress reports from the third 6-week period in December 2011. The recruitment letter explained the purpose of this study and the voluntary nature of the cyberbullying prevention program. The recruitment letter also assured the anonymity of students who chose to participate. Accompanying the letter was a permission slip asking for parents' and students' signatures granting permission for participation. Parents had the opportunity to participate or decline to participate in the program and furthermore choosing not to participate caused no penalty to students or parents. Parents were also informed that sixth-grade students who chose to participate in the curriculum would do so in accordance with Texas House Bill 1942, which states that all schools in Texas will use evidenced-based practices to increase awareness and educate students about bullying (Texas Association of School Boards, n.d.). The Texas Association of School Boards (n.d.) expanded this requirement to include bullying through electronic means. Students who returned their permission slips to their teachers

within the week received activities tickets to be used at later events. Tickets were normally awarded to students in sixth-grade at this particular campus to reinforce positive behaviors. Students who are awarded tickets can later redeem the tickets for ice cream socials and outside time that will occur during the course of the school day. Additionally, students who participated in this study were entered in a drawing to win a variety of gift cards from local eating establishments, theaters, and iTunes.

All participants took the Rosenberg (1965) Self-Esteem Scale, the-demographic questionnaire, and the Adapted Cyber Savvy Survey online in computer labs in the school library and a classroom. These labs had previously been secured for three possible administration dates in December 2011 and January 2012. The assessment instruments were loaded on PsychData prior to administration, and the campus technology director placed links to the assessments, in the appropriate order, on a student-user page. Participants were escorted to the labs during their third- or seventh-period health class. Assisting counselors facilitated the administration of the assessments while the researcher remained in the hallways to monitor traffic to and from the computer labs to assure that students were not talking about the assessments. Facilitators were given a vocabulary list to which they could refer if students had questions about words used in the assessments. Completion of the three surveys took approximately 30 minutes.

After completing the pretests, participating students were randomly assigned to either the treatment or the control group. Students in the treatment group reported to the school cafeteria on Tuesdays (for the 8-week period) during their assigned health class to

participate in the cyberbullying prevention program. All sixth-graders at the school where this study was conducted attend health class during third or seventh period, so students in the control group continued to meet with their regular health class. For students in the control group, the health teachers administered regular health curriculum that focused on body systems for the 8 weeks in which students in the treatment group received the cyberbully prevention curriculum.

Cyberbullying Prevention Program

The research designed the cyberbullying prevention program specifically for sixth-grade students. The curriculum program covered the topics of bullying, cyberbullying, maintaining internet safety, making friends in middle school, texting, and social networking. Students participated in activities that focused on friendship, perspective-taking, and conflict resolution skills. Students also had the opportunity to practice these skills both in class and as homework assignments. Students were made aware of the dangers that may exist when they spend time online or when they are communicating with others by text. An additional aim of the curriculum was to help students become knowledgeable about ways to report and protect themselves online.

The researcher developed the curriculum for the cyberbullying prevention program based on current academic research indicating that children who are in middle school experience more cyberbullying than do children at any academic level (Hinduja & Patchin, 2008; Limber, 2011). Researchers have also suggested that educators take an active role in educating students in middle school about the prevalence and consequences

of cyberbullying and about skills that may help them with perspective-taking, empathy, conflict resolution, and internet safety (Hinduja & Patchin, 2008; Limber, 2011; Willard, 2006).

The researcher developed the curriculum for the cyberbullying prevention program based on the Symbolic Interaction Theory that people make meanings from their interactions with others and develop self-concept based on feedback they receive (Blumer, 1969; Stryker, 2001). Additionally, Social Information Processing Theory was used in curriculum development to address cognitive errors that students sometimes make in interpreting social cues and selecting reactions in social situations. The curriculum for the cyberbullying prevention program spanned 8 weeks and was divided into eight 45-minute lessons. Students in the treatment group met once per week. The template for the lesson plan consisted of approximately 20 minutes to deliver new material, 20 minutes to do hands-on activities and/or group discussion, and 5 minutes to collect completed homework and to disseminate new take-home information. The researcher disseminated new material using a variety of methods, including lectures, videos, and guest speakers. Hands-on activities and group discussions covered real-life scenarios and included brainstorming within smaller student-led groups to allow ample opportunity for self-reflection and use of empathy, perspective-taking, and conflict resolution skills. According to previous researchers, these curriculum elements are all necessary components in any bully prevention program (Frey et al., 2005; Limber, 2011; Merrell, 2007; Olweus, 1994; Willard, 2006).

The homework component of the curriculum for the cyberbullying prevention program included a weekly self-reflection about the lesson and experience with other students. A majority of the homework assignments also focused on how online lives affect self-concept, identity, and self-esteem. In accordance with Symbolic Interaction Theory, the homework was intended to facilitate students' making meaning of their new learning and incorporating that meaning into the roles they play online, hopefully creating a new norm among this population of students. Homework was collected but not examined for the purposes of this research. In the following paragraphs, the researcher will briefly describe each lesson of the curriculum for the cyberbullying prevention program.

Week 1 of the cyberbullying prevention program featured an introductory lesson in which key terms about bullying, cyberbullying, self-esteem, identity, and self-concept were explained. The researcher elaborated on these definitions by using YouTube and student-created videos. The researcher also shared with students the feedback about bullying and cyberbullying feedback that campus administrators have collected over the last 3 years. The researcher shared this information with students to give students a sense of proximity to the issue of cyberbullying. The feedback about bullying and cyberbullying came from previous students and included information about the prevalence of these behaviors among students on this particular campus, the reasons why students believed they were bullied or cyberbullied, and the ways they reacted to the bullying. The researcher explained the purpose and goals of the cyberbullying prevention

program to students during the first session of the program. Finally, the researcher assigned student leaders and groups in accordance with suggestions in the research literature (Limber, 2011; Olweus, 1994; Willard, 2006. These groups remained intact for the duration of the program. The homework assignment for Week 1 of the program included a written assignment about self-concept and about perception of others. Students were encouraged to interview their family members and friends to solicit feedback about the students' social strengths.

Week 2 of the cyberbullying prevention program focused on making friends in middle school. Research literature revealed that students who feel they have friends or make friends easily are less likely to be bullied (Frey et al., 2005). Peer approval is also an important component to self-confidence (Steinberg, 1995). Students were informed about various outlets on and off campus for making friends during middle school, about how middle school is different from elementary school, and about how friendship is related to identity and self-esteem. Group activities during Week 2 of the program allowed students to witness peer rejection, to experience empathy for others, and to establish common interests with others. Homework for this week included a self-reflection about sharing interests with others and about the importance of making friends.

Week 3 of the cyberbullying prevention program focused on Internet safety. The school librarian was a guest speaker regarding the AUP at school. Additionally, the researcher discussed sharing information and making friends online and supplemented the discussion with educational videos. Students had the opportunity to brainstorm and

solve problems in groups about real-life scenarios in which fictional students made poor choices online. Homework for Week 3 included a self-reflection about when the student made a good choice online, when the student made a poor choice online, and how the student felt about those choices. Students also took home the Net Cetera guide to share with parents (Federal Trade Commission, n.d.). The Net Cetera guide contains information about online safety and about how parents can be involved in their children's online lives. Students were instructed to pick out a topic from the guide, to discuss it with their parents, and then to write a brief paragraph about what they chose and discussed with their parents.

Week 4 of the cyberbullying prevention program focused on bullying and relational aggression and how those are related to and differ from cyberbullying because Limber (2011) suggested that education about cyberbullying prevention should be incorporated into bully prevention programs that already exist on campuses. The researcher also discussed the prevalence and consequences of bullying behaviors. Some researchers have suggested that students be aware of bystander behavior and of how changing that behavior can play a pivotal role in the number of bullying occurrences that take place (Crick & Grotepper, 1995; Olweus, 1994). Therefore, the researcher examined bystander behavior with students and provided students with specific examples of bystander behavior in supplemental videos to encourage students to brainstorm and solve problems in their groups. Additionally, the assistant principal of the campus spoke about the Student Code of Conduct and about the consequences of bullying and cyberbullying

at school. Homework for Week 4 included a written reflection about when students felt that they did not fit in and what they wish that someone would have done to help. Students were also instructed to examine their own bystander behavior and to write a self-reflection paragraph about that as well. Lastly, students were instructed to talk to their parents about when they felt bullied or excluded in school and about how that may have affected their self-concepts.

Week 5 of the cyberbullying prevention program focused on the behaviors that are considered cyberbullying, the prevalence of cyberbullying, the characteristics of cyberbully victims and perpetrators, the consequences of cyberbullying, and the ways in which school officials can help. This last element of the Week 5 curriculum may have convinced students to report cyberbullying. The resource officer of the school spoke about the legal consequences of bullying. Students were exposed to real-life scenarios of student cyberbullying by watching videos and role-playing, after which they brainstormed in groups about what the victim and bystander could have done differently and about how they might have been feeling. Also, students were asked to consider what the bully might have been feeling engage in such behavior. Homework for Week 5 included a self-reflection about when students may have felt uncomfortable online or may have witnessed cyberbullying and about how that may made them feel.

Week 6 of the cyberbullying prevention program was a continuation of Week 5 with a quick review of terminology and concepts. During Week 6, students examined their own online behaviors and took a quiz to determine if they had ever been

cyberbullies. Students were encouraged to share their findings in their student groups if they felt comfortable doing so. The results of this quiz were for personal use only and were not collected. Supplemental videos were used to provide real-life examples of cyberbullying, and students subsequently brainstormed and solved problems in their student groups. Researchers have recommended student-led groups for bullying prevention programs because well-liked peers often make the best role models (Limber, 2011; Olweus, 1994). Students were also made aware of how they could report cyberbullying. Homework for Week 6 included a written self-reflection about how cyberbullying might affect self-concept from the perspective of the bully, the victim, and the bystander.

The purpose of Weeks 7 and 8 of the cyberbullying prevention program was to allow students to apply what they had learned and to share it with others. Week 7 focused on texting and social networking because some researchers have suggested that these are two primary platforms used by adolescents to communicate (Lenhart, Ling, et al., 2010). The researcher discussed the prevalence of teens and texting, the prevalence of teens and social networking, the idea of parental limitations, and the use of camera phones to share appropriate and inappropriate photos. The majority of Week 7 was spent in student groups for activities that focused on each of these platforms. Students devised lists of appropriate codes that they could use to text each other and to show support and kindness, which was an exercise used by Limber (2011) and incorporated in the CyberSmart! Curriculum (Common Sense Media, n.d.). The researcher adapted this

exercise to suit the current audience in a more personalized way. During Week 7, students were also able to apply their new online safety knowledge and to create a pencil-and-paper "social networking profile," which students shared in their groups. For the homework for Week 7, students were instructed to examine the relationship between their offline and online identities.

In the final week of the program, students received a brief review of material previously covered and were given the opportunity to work in their student groups on posters about cyberbullying be displayed in the cafeteria. Allowing students to be the experts and to share their newly acquired knowledge promotes a sense of ownership in the message (Limber, 2011; Olweus, 1994). Each student group was allowed a chance to share its poster with the entire class and to place the poster on the wall in a chosen place.

After the Program

During the week after the program ended, students reported to the computer lab in the library to participate in the posttest. As with pretests, posttests were loaded in PsychData and were administered by assisting counselors without the researcher present. The Rosenberg (1965) Self-Esteem Scale was administered first followed by the Adapted Cyber Savvy Survey (Willard, 2011). Students took approximately 20 minutes to complete both assessment tools. This procedure was conducted again 3 weeks later as the delayed posttest.

The drawing for gift cards took place following the delayed posttest. Students who participated in the control group and the other students in the health class received the same curriculum during the last the 8 weeks of the school year following completion of the dissertation study.

Data Analyses

Quantitative Data Analyses

Statistical Package for Social Sciences (SPSS) Version 19.0 was used to analyze the data. Demographic information (e.g., age, gender, internet use at home) was analyzed with descriptive statistics, including frequencies, percentages, means, and standard deviations. Additionally, descriptive statistics were used to analyze participants' self-reported text-messaging behaviors, online behaviors (including cyberbullying behaviors), bystander behaviors, and intervention behaviors. Reliability analyses with Cronbach's alpha were also conducted to determine the reliability of the Rosenberg (1965) Self-Esteem Scale and the Adapted Cyber Savvy Survey (Willard, 2011). Specifically, 6 victimization items, 5 cyberbullying items, 7 bystander items, and 10 self-esteem items were analyzed separately for reliability. Preliminary analyses were also conducted to determine significant relationships among variables. Specifically, Pearson product-moment correlations were conducted to test the relationships among pretest scores (i.e., victimization, cyberbullying, bystander, and self-esteem scores). Furthermore, separate multiple linear regressions were conducted to predict individual dependent variable

scores (e.g., pretest total victimization scores, pretest self-bystander scores) by the other continuous dependent variables.

Several analyses were conducted for the primary analyses. Data pertaining to RQ_1 were analyzed using a multivariate analysis of covariance (MANCOVA). The MANCOVA was conducted to test the effect of condition (i.e., control, intervention) on posttest scores for the following variables: total victimization, total cyberbullying, tell teachers, tell parents, and self-esteem controlling for pretest victimization, cyberbullying, tell teachers, tell parents, and self-esteem. Similarly, a separate MANCOVA was conducted to examine the effect of condition on delayed posttest scores, controlling for pretest scores. Data pertaining to RQ_2 was analyzed using an analysis of covariance (ANCOVA). Specifically, two separate ANCOVAs were conducted to test the effect of condition on self-bystanders scores at posttest and delayed posttest with pretest self-bystander scores as a covariate. Furthermore, ANCOVAs were also conducted to test the effect of condition on other-bystander scores at the same time points, with pretest other-bystander scores as the covariate. Finally, data for RQ_3 about the effect of condition on self-esteem scores at posttest and delayed posttest were addressed through the analysis for RQ_1. Additionally, separate ANCOVAs were conducted to test the effect of condition on self-esteem scores both at posttest and delayed posttest with pretest self-esteem scores as the covariate.

Qualitative Data Analysis

Qualitative data were collected from three open-ended questions on the Adapted Cyber Savvy Survey (Willard, 2011). These three questions asked students to list (a) methods they might use to reduce the possibility of cyberbullying victimization and other things they might do to protect themselves online, (b) reasons why bystanders might not respond when they witness or are aware of cyberbullying, and (c) thoughts or feelings they experience when they witness students being cyberbullied. Students' responses to these questions were entered into an Excel spreadsheet and examined for emerging themes. The researcher then categorized the themes and collapsed categories with low response rates that may have been similar to other categories.

To increase the validity of qualitative data collected with this method, the researcher met with a team of three additional raters. These raters were doctoral-level students currently taking a qualitative statistics class. The raters were given a sample of 30 responses from each of the three questions and were asked to code them with the set of code categories created by the researcher. These coding categories emerged from the researcher's categorization of student data. In comparing the raters' coding to that of the original researcher, coding for Question A yielded 97% agreement, coding for Question B yielded 87% agreement, and coding for Question C yielded 90% agreement.

The researcher and the raters then met to discuss outcomes and agreed that some categories may need to be further collapsed due to disagreement of coding and low numbers in some categories. For example, students' responses Question A ("What are

some things you can do that could reduce the possibility that you might be cyberbullied?") included a data set that was coded as "privacy settings" and a data set that was coded "internet security." Response numbers were very low for internet security, and collapsing the two groups increased rater agreement. Additionally, the researcher and the raters decided to collapse the coding categories of "ignore" and "don't get involved" for similar reasons. This brought inter-rater agreement for Question A to 100%. For Question B ("What do you think or feel if you see that someone has posted hurtful material about another person online?"), responses that included emotion (i.e. anger, sadness, empathy) were collapsed together, responses from students who wanted to take action and to help and support victim were collapsed together, and responses from students who wanted consequences for bullies and who wanted bullying to stop were collapsed together. This further increased inter-rater agreement for Question B to 97%. For Question C ("Why do you think that many bystanders do not speak up or take action when they witness or are aware of students being cyberbullied?"), response sets for "afraid" and "afraid to approach bully" were collapsed, and response sets for "don't care" and "don't want to get involved" were collapsed to bring inter-rater agreement for Question C to 100%.

After establishing coding agreement, the researcher tallied student responses by code and documented the results in an Excel spreadsheet. The researcher then calculated percentages and noted trends. These results can be examined in Chapter 4.

Summary

Researchers have established that cyberbullying behaviors are most prevalent among middle school students (Hinduja & Patchin, 2008; Limber, 2011). Researchers and policy-makers have suggested that school personnel take the lead in educating students about the prevalence and consequences of engaging in cyberbullying behavior (Hinduja & Patchin, 2007; Willard, 2006). Researchers have also suggested that students be taught internet safety and social-emotional skills focusing on perspective-taking and empathy-building.

Because little curriculum exists for cyberbullying prevention programs, the researcher developed a curriculum for the purposes of this research. This curriculum was based on Symbolic Interaction Theory because of the correlation between low self-esteem and cyberbully/victim behaviors. Symbolic Interaction Theory was also used to address low self-concept and low self-efficacy commonly displayed by bystanders. Symbolic Interaction Theory focuses on how individuals develop their self-concepts based on interactions with others. Social Information Processing Theory also played a key role in curriculum development because Social Information Processing Theory addresses positive experiences that may be missing from people's schemas of possible responses for social situations. Social Information Processing Theory also addresses errors in interpretations of social cues and development of positive self-schema through positive social interactions.

The effectiveness of the curriculum for the cyberbullying prevention program of this study was measured using pretests and posttests following curriculum implementation. Pretests and posttests assessed behaviors of cyberbullies, victims, and bystanders and measured students' self-esteems because self-esteem is one component of the broader self-concept (Rosenberg, 1965). The curriculum was implemented with sixth-grade students during health class once per week for a period of 8 weeks. Students were randomly assigned to control and treatment groups. While students in the treatment group received the curriculum for the cyberbullying prevention program, students in the control group received regular health curriculum. Following the delayed posttest, students in the control group were also instructed the curriculum for the cyberbullying prevention program.

The researcher hypothesized that implementing the proposed curriculum would correlate with increased self-esteem, increased protective factors for victimization, increased socially responsible behaviors, and decreased cyberbullying behaviors. Because the emotional effects of cyberbullying often carry over into the school day, the findings of this research could have important implications for practitioners because the findings of this research may contribute to increased feelings of safety at school and to a positive school climate, allowing for more focus on learning.

CHAPTER IV

RESULTS

The aim of this study was to examine the effects of a preventative cyberbullying program on a population of sixth-grade students. Students were randomly assigned to a treatment or control group. Treatment group students attended an 8-week cyberbullying prevention program during health class while students assigned to the control group remained in health class for 8 weeks.

Before implementation of the program, students participated in pretest surveys: the Rosenberg Self-Esteem Scale, a 10-question survey assessing the self-esteem of adolescents (see Appendix D); the Adapted Cyber Savvy Survey (Willard, 2011), 12 questions that measured social networking use, cyberbullying behavior and experience, and bystander responsibility (see Appendix E); and a demographic questionnaire (see Appendix F). Following the intervention, participants took the Rosenberg Self-Esteem Scale and the Adapted Cyber Savvy Survey. The researcher also measured these items across a third point in time, approximately 3 weeks after completion of the intervention. Three questions from the Adapted Cyber Savvy Survey were qualitative in nature and were examined for percentages and frequencies of themes. In this chapter, the researcher will describe the descriptive, preliminary, and primary analyses of this study. Tables for all analyses are presented in Appendix H.

Description of Variables

Prior to the start of statistical analyses, the researcher created several variables to address the research questions. For example, the researcher created *total victimization*, *total cyberbullying*, *self-bystander*, *other-bystander*, and *self-esteem* scores for analysis purposes by summing the appropriate items for each particular scale at each time point: pretest, posttest, and delayed posttest. Specifically, the *total victimization* scores for each time point consisted of the six victimization items (received online messages or text messages that make you afraid for your safety, received mean or nasty messages from someone online or by text, been put down online by someone who has sent or posted negative material, had someone pretend to be you and post material that damaged your reputation or friendships, had someone share your personal secrets or images online or by text without your permission, and been excluded from an online group). Participants' response options ranged from 0=*Never* to 4= *5 or more times*.

The researcher created a *total cyberbullying* score by summing the five cyberbullying questions (have you sent mean or nasty messages to someone online or by text, have you put down someone online or by text by posting negative material, have you pretended to be someone else to send or post negative material to ruin that person's reputation or friendships, and have you excluded someone else from an online group). Participants' response options ranged from 0=*Never* to 4= *5 or more times* for each time point.

Furthermore, the researcher created two additional victimization variables for each time point. These variables were *victimization tell parents* and *victimization tell teachers*. The response options for these two items ranged from 1=*very unlikely through* 3=*not sure* to 5=*very likely*. For example, using the variable *tell teachers,* the researcher assessed the likelihood that a student would tell a school staff member if that student was cyberbullied at school. Using the variable *tell parents,* the researcher assessed the likelihood that a student would tell a parent if that student was cyberbullied and could not stop it themselves. Additionally, the researcher calculated the participants' self-esteem scores at pretest, posttest, and delayed posttest by summing the 10 self-esteem items (Rosenberg, 1965).

To understand bystander behaviors, either of self or of others, the researcher created two separate variables for each time point: *self-bystander* and *other-bystander*. For *self-bystander* behavior scores, which focused on actions students have taken themselves in response to cyberbullying, the researcher created a single score. Specifically, if a student performed a negative cyberbullying behavior (e.g. telling others to look at what happened), that student received a score of "0." If a student did not perform the negative behavior, that student received a score of "1." Conversely, if a student performed a positive cyberbullying behavior (e.g. tell an adult what is happening), that student received a score of "1," and if he or she did not perform a positive bystander behavior, he or she received a score of a "0." The researcher then summed these items to create an overall *self-bystander* score for pretest, posttest, and

delayed posttest. Additionally, the researcher used an *other-bystander* score, which addressed how often participants witnessed other students trying to put a stop to peers posting hurtful material online. These scores ranged from 0 =*Never* to 4 = *A lot of the time*. The researcher standardized the scores by creating *z*-scores because several of the quantitative variables were measured on different scales.

Lastly, the researcher analyzed three qualitative bystander questions by examining emerging themes and then calculating percentages and frequencies. These questions were "What are some things you can do that could reduce the possibility that you might be cyberbullied?"; "What do you think or feel if you see that someone has posted hurtful material about another person online?"; and "Why do you think that many bystanders do not speak up or take action when they witness or are aware of students being cyberbullied?" The researcher asked each of these questions at each time point. These data were meant to support the quantitative data.

Descriptive Analyses

There were 168 participants in this study. Initially, 191 students volunteered as participants, but only 168 produced data across all three time points. The researcher asked the participants about their demographic information so the research would have a description of the participants in each group. As seen in Table 1 of Appendix H, the researcher assigned the participants to one of two conditions (i.e., control versus intervention). The number of students in both conditions was fairly equal in that the researcher assigned 85 (50.6%) to the control condition and 83 (49.4%) to the

intervention condition. A majority of the participants were female, n = 107 (63.7%). A majority of participants were Caucasian, n =107 (64.1%); followed by Hispanic, n = 22 (13.2%); African American, n = 9 (5.4%); Asian Pacific, n = 5 (3.0%); and American Indian, n = 1 (.6%). Several students identified themselves as being multi-racial, n = 19 (11.4%). Finally, some students identified themselves as "other," n = 4 (2.4%). Also indicated in Table 1 of Appendix H, a total of 135 (80.4%) students reported making mostly As in school, 30 students (17.9%) reported making mostly Bs in school, and 3 students (1.8%) reported making mostly Cs in school.

Prior to the study, the researcher verified that all participants (100%) had computer access. As indicated in Table 2 of Appendix H, a majority of students reported that they had a home computer, n =154 (91.7%); a number reported that they had a laptop, n = 105 (62.5%); a number reported that they had their own cell phone, n = 135 (80.4%); and some reported having Internet access on their phone, n = 85 (50.6%). When asked where they most often accessed the Internet, 93 (55.4%) participants reported in a common living area, 36 (21.4%) in their bedroom, 6 (3.6%) at school, 1 (.6%) in the car, and 32 (19.0%) reported using the computer in other places. When the researcher asked about the participants' amount of time spent texting on a weekday, a total of 94 (56.0%) students reported texting less than 1 hour per day, whereas 25 students (14.9%) reported texting 2 to 3 hours per day, 3 students (1.8%) reported 4 to 5 hours per day, and 4 students (2.4%) reported texting 5 or more hours per day. When the researcher asked the participants about their time spent on the Internet on a weekday, 112

students (66.7%) reported less than 1 hour of Internet activity, 34 students (20.2%) reported 2 to 3 hours per day, 4 students (2.4%) reported 4 to 5 hours per day, and 3 students (1.8%) reported 5 hours or more per day. Regarding parent monitoring, 85 students (64.9%) reported that parents monitored their cell phone use, and 101 students (66.4%) reported that their parents monitored Internet use. This indicates that a high number of parents are not monitoring adolescent Internet use. Of the 168 participants, 98 students (58.3%) reported having a social networking profile on Myspace, Facebook, or Google+. Of the 92 participants who responded to the question about who could see their profile, 70.7% allow "friends only" to view their information, 7.6% allow "friends and their friends" to view their information, 13.0% allow everyone to see their information, and 8.7% do not know who may view their information.

Instrument Reliability

Using Cronbach's alpha, the researcher examined reliability in the Adapted Cyber Savvy Survey and the Rosenberg (1965) Self-Esteem Scale. The Adapted Cyber Savvy Survey (Willard, 2011) was used to examine student behaviors as victims, cyberbullies, and bystanders. The researcher entered *victimization*, *cyberbullying*, *self-bystander*, and *self-esteem* items into separate reliability analyses. Specifically, the researcher subjected the six victimization items to an inter-item reliability analysis to determine the reliability of the scale items. As evidenced in Table 3 of Appendix H, the results revealed that the six victimization items demonstrated questionable inter-item reliability ($\alpha = .667$). Also seen in Table 3 of Appendix H, the five cyberbully items demonstrated an unacceptable

inter-item reliability (α = .438). Finally, the bystander items also demonstrated questionable inter-item reliability (α = .606). The 10 items on the Rosenberg Self-Esteem Scale were also subjected to an inter-item reliability analysis and demonstrated a good inter-item reliability (α = .885).

The researcher also analyzed variables (i.e., *cyberbullying* scores, *bystander* scores, *victimization* scores, and *self-esteem* scores) with means and standard deviations at each of the time points: pretest, posttest, and delayed posttest by group. As shown in Table 4 of Appendix H, for the control condition, participants' pretest *self-esteem* scores ranged from 8 to 30 with an average pretest *self-esteem* score of 23.32 (*SD* = 5.57). Their posttest *self-esteem* scores ranged from 3 to 30 with an average posttest *self-esteem* score of 23.67 (*SD* = 5.98), and their delayed posttest *self-esteem* scores ranged from 1 to 30 with an average delayed posttest *self-esteem* score of 24.09 (*SD* = 6.02). For the intervention condition, participants' pretest *self-esteem* scores ranged from 7 to 30 with an average pretest *self-esteem* score of 23.93 (*SD* = 4.89). Their posttest *self-esteem* scores ranged from 8 to 30 with an average posttest *self-esteem* score of 24.24 (*SD* = 5.17), and their delayed posttest *self-esteem* scores ranged from 9 to 30 with an average delayed posttest self-esteem score of 25.07 (*SD* = 5.40).

The standardized scores for participants' *self-esteem* at pretest, posttest, and delayed posttest are also shown in Table 4 of Appendix H. For the control condition, participants' pretest *self-esteem* scores ranged from -2.98 to 1.22 with an average standardized pretest *self-esteem* score of -.06 (*SD* = 1.06). Their standardized posttest

self-esteem scores ranged from -3.75 to 1.08 with an average posttest *self-esteem* score of -.05 (*SD* = 1.07), and their standardized delayed posttest *self-esteem* scores ranged from -4.11 to .95 with an average delayed posttest *self-esteem* score of -.08 (*SD* = 1.05). For the intervention condition, participants' standardized pretest *self-esteem* scores ranged from -3.17 to 1.22 with an average pretest *self-esteem* score of .06 (*SD* = .93). Their posttest *self-esteem* scores ranged from -2.86 to 1.08 with an average posttest *self-esteem* score of .05 (*SD* = .93), and their delayed posttest *self-esteem* scores ranged from -2.72 to .95 with an average delayed posttest self-*esteem* score of .09 (*SD* = .94).

As seen in Table 5 of Appendix H, the researcher analyzed the participants' raw and standardized *victimization* scores descriptively by group. For the control group, participants' raw pretest *victimization* scores ranged from 0 to 11 with an average pretest *victimization* score of 1.13 (*SD* = 2.22); their posttest *victimization* scores ranged from 0 to 24 with an average posttest *victimization* score of 1.28 (*SD* = 3.24); and their delayed posttest *victimization* scores from 0 to 12 with an average delayed posttest *victimization* score of .95 (*SD* = 2.08). For the intervention group, participants' raw pretest *victimization* scores ranged from 0 to 18 with an average pretest *victimization* score of .93 (*SD* = 2.49); their posttest *victimization* scores ranged from 0 to 7 with an average posttest *victimization* score of .66 (*SD* = 1.44); and their delayed posttest *victimization* scores from 0 to 6 with an average delayed posttest *victimization* score of .42 (*SD* = 1.11).

Participants' standardized *victimization* scores are also displayed in Table 5 of Appendix H. For the control group, participants' standardized pretest *victimization* scores ranged from -.44 to 4.23 with an average pretest *victimization* score of .04 (*SD* = .94); their posttest *victimization* scores ranged from -.39 to 9.10 with an average posttest *victimization* score of .12 (*SD* = 1.28); and their delayed posttest *victimization* scores from -.41 to 6.70 with an average delayed posttest *victimization* score of .16 (*SD* = 1.23). For the intervention group, participants' standardized pretest *victimization* scores ranged from -.44 to 7.20 with an average pretest *victimization* score of -.04 (*SD* = 1.06); their posttest *victimization* scores ranged from -.39 to 2.38, with an average posttest *victimization* score of -.12 (*SD* = .57); and their delayed posttest *victimization* scores from -.41 to 3.15, with an average delayed posttest *victimization* score of -.16 (*SD* = .65).

In addition to the *victimization* total scores described above, the researcher descriptively analyzed the two *victimization* scores of *tell teachers* and *tell parents* with means and standard deviations by group. Participants' scores for each of these variables are reported as raw and standardized scores in Table 5 of Appendix H. Participants' raw *tell parents* scores in the control condition revealed that pretest scores ranged from 1 to 5 (*M* = 4.28, *SD* = 1.10), their posttest scores ranged from 1 to 5 (*M* = 4.31, *SD* = 1.05), and their delayed posttest scores also ranged from 1 to 5 (*M* = 4.13, *SD* = 1.19). Participants' raw *tell parents* intervention scores at pretest ranged from 1 to 5 with an average pretest score of 4.46 (*SD* = .85); their posttest scores also ranged from 1 to 5 with an average posttest score of 4.30 (*SD* = 1.03); and their delayed posttest scores ranged from 1 to 5,

with an average delayed posttest score of 4.24 (*SD* = 1.02). When examining standardized scores for *tell parents,* the researcher discovered that the participants' pretest scores range from -3.43 to .64 (*M* = -.09, *SD* = 1.12), their posttest scores ranged from -3.19 to .67 (*M* = .00, *SD* = 1.01), and their delayed posttest scores ranged from -2.87 to .74 (*M* = -.05, *SD* = 1.08) for the control condition. When examining standardized scores for *tell parents* for participants in the intervention condition, the researcher found that pretest scores range from -3.43 to .64 (*M* = .09, *SD* = .86), posttest scores ranged from -3.19 to .67 (*M* = .00, *SD* = 1.00), and delayed posttest scores ranged from -2.87 to .74 (*M* = .05, *SD* = .92) for the intervention condition.

Table 5 of Appendix H also displays participants' *tell teachers* victimization scores for both groups; these scores were descriptively analyzed both as raw and standardized scores. In the control group, participants' pretest *tell teachers* scores ranged from 1 to 5 with an average pretest score of 4.07 (*SD* = 1.25); their posttest scores ranged from 1 to 5 with an average posttest score of 4.08 (*SD* = 1.21); and their delayed posttest scores also ranged from 1 to 5 with an average delayed posttest *tell teachers* score of 3.81 (*SD* = 1.41). In the intervention group, participants' pretest *tell teachers* scores ranged from 1 to 5 with an average pretest score of 4.05 (*SD* = 1.16); their posttest scores ranged from 1 to 5 with an average posttest score of 4.10 (*SD* = 1.09); and their delayed posttest scores also ranged from 1 to 5 with an average delayed posttest *tell teachers* score of 3.96 (*SD* = 1.09). When examining participants' standardized scores for *tell teachers*, the researcher found that in the control group, participants' pretest scores ranged from -2.54

to .79 (M = .01, SD = 1.04), their posttest scores ranged from -2.69 to .79 (M = -.01, SD = 1.05), and their delayed posttest scores ranged from -2.29 to .88 (M = -.06, SD = 1.12). For the intervention condition, the results revealed that participants' pretest scores for *tell teachers* ranged from -2.54 to .78 (M = -.01, SD = .96), their posttest scores ranged from -2.69 to .79 (M = .01, SD = .95), and their delayed posttest scores ranged from -2.29 to .88 (M = .06, SD = .86).

As seen in Table 6 of Appendix H, the researcher analyzed the participants' raw and standardized *cyberbullying* scores descriptively by group. When examining the *cyberbullying* scores for the control group, the researcher found that participants' raw pretest *cyberbullying* scores ranged from 0 to 5 with an average pretest *cyberbullying* score of .18 (SD = .64); their posttest *cyberbullying* scores ranged from 0 to 9 with an average posttest *cyberbullying* score of .29 (SD = 1.17); and their delayed posttest *cyberbullying* scores from 0 to 3 with an average delayed posttest *cyberbullying* score of .20 (SD = .57). For the intervention group, participants' raw pretest *cyberbullying* scores ranged from 0 to 6 with an average pretest *cyberbullying* score of .23 (SD = .77); their posttest *cyberbullying* scores ranged from 0 to 5 with an average posttest *cyberbullying* score of .11 (SD = .58); and their delayed posttest *cyberbullying* scores from 0 to 5 with an average delayed posttest *cyberbullying* score of .28 (SD = .77).

Table 6 of Appendix H also displays the participants' standardized *cyberbullying* scores. For the control group, participants' standardized pretest *cyberbullying* scores ranged from -.29 to 6.80 with an average pretest *cyberbullying* score of -.04 (SD = .91);

their posttest *cyberbullying* scores ranged from -.22 to 9.44 with an average posttest *cyberbullying* score of .10 (*SD* = 1.26); and their delayed posttest *cyberbullying* scores from -.35 to 4.08 with an average delayed posttest *cyberbullying* score of -.06 (*SD* = .85). For the intervention group, participants' standardized pretest *cyberbullying* scores ranged from -.29 to 8.22 with an average pretest *cyberbullying* score of .04 (*SD* = 1.09); their posttest *cyberbullying* scores ranged from -.22 to 5.15 with an average posttest *cyberbullying* score of -.10 (*SD* = .63); and their delayed posttest *cyberbullying* scores from -.35 to 7.04 with an average delayed posttest *cyberbullying* score of .06 (*SD* = 1.14).

Table 7 in Appendix H displays participants' raw and standardized scores for *self-bystander* and *other-bystander* behaviors. For the control group, participants' raw pretest *self-bystander* behavior scores ranged from 2 to 7 with an average *self-bystander* score of 4.96 (*SD* = .84); their raw posttest *self-bystander* behavior scores ranged from 1 to 7 with an average posttest score of 4.88 (*SD* = 1.44); and their delayed posttest *self-bystander* scores ranged from 1 to 7 with an average delayed posttest score of 5.07 (*SD* = 1.52). For the intervention group, participants' raw pretest *self-bystander* behavior scores ranged from 3 to 7, (*M* = 5.04, *SD* = .83); their posttest *self-bystander* scores ranged from 1 to 7 (*M* = 4.94, *SD* = 1.47); and their delayed posttest *self-bystander* scores ranged from 2 to 7 (*M* = 4.78, *SD* = 1.34). When examining participants' standardized scores for *self-bystander* behavior, the research found that in the control condition, participants' pretest scores ranged from -3.60 to 2.40 (*M* = -.04, *SD* = 1.00), their posttest scores ranged from -2.69 to 1.44 (*M* = -.02, *SD* = .99), and their delayed posttest scores ranged from -2.73 to

1.44, (M = .10, SD = 1.06). In the intervention condition, participants' standardized *self-bystander* scores ranged from -2.40 to 2.40 (M = .04, SD = 1.00) at pretest, their posttest scores ranged from -2.69 to 1.44 (M = .02, SD = 1.01), and their delayed posttest scores ranged from -2.04 to 1.44 (M = -.10, SD = .93).

When examining the descriptive analyses for *other-bystander* raw scores, the results revealed that in the control condition, participants' *other-bystander* scores ranged from 0 to 4 with an average *other-bystander* score of 1.45 (SD = 1.22) at pretest; their posttest scores ranged from 0 to 4 with an average *other-bystander* score of 1.47 (SD = 1.21); and their delayed posttest scores also ranged from 0 to 4 (M = 1.47, SD = 1.29). As also demonstrated in Table 7 of Appendix H, for the intervention condition, participants' pretest *other-bystander* behavior scores ranged from 0 to 4 (M = 1.19), their posttest *other-bystander* behavior scores ranged from 0 to 4 (M = 1.22, SD = 1.32), and their delayed posttest *other-bystander* behavior scores ranged from 0 to 4 (M = 1.13, SD = 1.15). Table 7 of Appendix H displays the participants' standardized *other-bystander* scores. Their standardized pretest other-bystander scores ranged from -1.08 to 2.19 (M = .10, SD = 1.00); their posttest *other-bystander* scores ranged from -1.06 to 2.10 (M = .10, SD = 1.00); and their delayed posttest *other-bystander* scores ranged from -1.06 to 2.20 (M = .14, SD = 1.05). Finally, in the intervention condition, participants' pretest *other-bystander* standardized scores ranged from -1.08 to 2.19 (M = -.11, SD = 1.00); their posttest *other-bystander* bystander scores ranged from -1.06 to 2.10 (M = -.10, SD =

1.04); and their delayed posttest *other-bystander* scores ranged from -1.06 to 2.20 (M = -.14, SD = .93).

Preliminary Analyses

Correlations

To test the strength of relationships between the dependent variables, the researcher conducted a Pearson Product Moment correlation. The correlation coefficient (Pearson's r) can range from -1.00 to +1.00. Values of -1.00 indicate a perfect negative linear relationship, whereas 0.00 indicates no relationship between continuous variables. Finally, +1.00 indicates a perfect positive linear relationship. Negative relationships occur when increases in one variable (e.g., *self-esteem*) are associated with decreases in another variable (e.g., *victimization* scores). Positive relationships, on the other hand, occur when increases in one variable (e.g., *self-esteem*) are associated with increases in another variable (e.g., *tell parents*; Glass & Hopkins, 1995). For the following analyses, the researcher conducted Pearson Product Moment correlations between the pretest scores using the standardized scores.

As shown in Table 8 of Appendix H, the results revealed a significant positive correlation between pretest *total cyberbullying* scores and pretest *total victimization* scores, $r(168) = .274$, $p < .01$, indicating that participants with higher *cyberbullying* scores tended to have higher *victimization* scores. However, pretest total *cyberbullying* scores had a significant negative correlation with pretest *self-esteem* scores, $r(168) = -.211$, $p < .01$, indicating that participants with higher *cyberbullying* scores tended to have

lower *self-esteem* scores at pretest. The results also revealed that a significant negative correlation existed between pretest *total victimization* scores and pretest *self-esteem* scores, $r(168) = -.389$, $p < .01$, indicating that participants with higher *victimization* scores tended to have lower *self-esteem* scores. Additionally, pretest *tell parents* victimization scores had a significant positive relationship with *tell teachers* victimization scores [$r(168) = .534$, $p < .01$] and pretest *self-esteem* scores [$r(168) = .275$, $p < .01$]. The results indicated that students who have higher *tell parents* scores tended to have higher *tell teacher* scores and *self-esteem* scores at pretest. Finally, no other significant relationships existed between pretest variables.

Regressions

The researcher conducted additional preliminary analyses using multiple linear regressions to predict individual dependent variables at pretest (outcomes) from the other independent variables (predictors). For example, the researcher predicted the outcome variable of *total victimization* from *self-esteem* scores and *cyberbullying* scores at pretest.

As shown in Table 9 of Appendix H, a multiple linear regression analysis revealed that the model significantly predicted pretest *total victimization* scores from pretest *total cyberbullying* and *self-esteem*, $F(2, 165) = 19.30$, $p < .001$. The two predictors explained 18.0% of the variance, $R^2 = .180$. Pretest *self-esteem* scores and *total cyberbullying* scores were significant predictors of *total victimization* scores, $B = -.346$, $t(165) = -4.83$, $p < .001$, and $B = .201$, $t(165) = 2.80$, $p = .006$. The results indicate that participants with higher *self-esteem* scores at pretest are more likely to have lower

total victimization scores at pretest. Furthermore, participants with higher *total cyberbullying* scores at pretest are more likely to have higher *victimization* scores at pretest.

As shown in Table 10 of Appendix H, a multiple linear regression analysis revealed that the model significantly predicting pretest *total cyberbullying* scores from pretest *total victimization* and *self-esteem*, $F(2, 165) = 7.94$, $p = .001$. The two predictors explained 7.7% of the variance, $R^2 = .077$. Pretest *total victimization* scores were a significant predictor of total cyberbullying scores, $B = .226$, $t(165) = 2.80$, $p = .006$. The results indicate that participants with higher *total victimization* scores at pretest are more likely to have higher *total cyberbullying* scores at pretest.

As seen in Table 11 of Appendix H, a multiple linear regression analysis revealed that the model significantly predicted pretest *tell teacher* scores from pretest *total victimization, total cyberbullying, tell parents, self-bystander behaviors, other-bystander behaviors*, and *self-esteem*, $F(6, 161) = 11.25$, $p < .001$. The six predictors explained 26.9% of the variance, $R^2 = .269$. Pretest *tell parents* scores were a significant predictor of pretest *tell teacher* scores, $B = .547$, $t(161) = 7.85$, $p < .001$. The results indicate that participants with higher *tell parents* scores at pretest are more likely to have higher *tell teacher* scores at pretest.

As seen in Table 12 of Appendix H, a multiple linear regression analysis revealed that the model significantly predicted pretest *tell parents* scores from pretest *total victimization, total cyberbullying, tell teacher, self-bystander behaviors, other-bystander*

behaviors, and *self-esteem*, $F(6, 161) = 14.35$, $p < .001$. The six predictors explained 32.4% of the variance, $R^2 = .324$. Pretest *self-esteem* scores and *tell teachers* scores were significant predictors of *tell parents* scores, $B = .225$, $t(161) = 3.18$, $p = .002$ and $B = .506$, $t(161) = 7.85$, $p < .001$. The results indicate that participants with higher *self-esteem* scores at pretest are more likely to have higher *tell parents* scores at pretest. Furthermore, participants with higher *tell teacher* scores at pretest are more likely to have higher *tell parent* scores at pretest.

As seen in Table 13 of Appendix H, a multiple linear regression analysis revealed that the model did not significantly predict pretest *self-bystander behavior* scores from pretest *total victimization*, *total cyberbullying, tell teacher, tell teachers, other-bystander behaviors*, and *self-esteem*, $F(6, 161) = 1.27$, $p = .273$. The six predictors only explained 1.0% of the variance, $R^2 = .010$.

As seen in Table 14 of Appendix H, a multiple linear regression analysis revealed that the model significantly predicted pretest *self-esteem* scores from pretest *total victimization* and *total cyberbullying*, $F(2, 165) = 16.05$, $p < .001$. The two predictors explained 15.3% of the variance, $R^2 = .153$. The results indicate that participants with higher pretest *total victimization* scores are more likely to have lower *self-esteem* scores at pretest.

Primary Analyses

The researcher was specifically interested in how the intervention affected cyberbullying behaviors, cyberbullying victimization, bystander responsibility behaviors, and self-esteem; therefore, the primary analyses included three research questions, which are discussed individually below. Furthermore, the researcher examined possible trends that may have occurred from pretest to posttest to delayed posttest by condition. Additionally, the researcher examined responses to open-ended questions to determine if qualitative responses supported the quantitative findings.

Research Question 1

The first research question asked if sixth grade students who participated in a cyberbullying prevention program would demonstrate fewer occurrences of cyberbullying behavior at posttest than at pretest compared to those who did not participate in the program. Based on the preliminary analyses, several significant relationships existed among *victimization* scores, *cyberbullying* scores, and *self-esteem* scores, which should be accounted for in the analysis for Research Question 1. Because the preliminary analyses revealed these significant relationships, the researcher used the following variables as dependent variables: *posttest total victimization, total cyberbullying,* and *self-esteem.* As with previous analyses, the researcher used standardized scores. To examine group differences, the independent variable was condition (i.e. intervention versus control). Because the researcher conducted the intervention over time, the researcher used pretest scores (e.g., *total cyberbullying*, *total*

victimization, self-esteem) as covariates to control for baseline measures. To analyze the first research questions, the researcher conducted two multivariate analyses of covariance (MANCOVAs) to examine group differences at posttest and delayed posttest, using pretest scores as covariates.

Table 15 of Appendix H demonstrates that the researcher conducted a one-way MANCOVA to examine the effect of condition (control versus intervention) on posttest *total cyberbullying* scores, *total victimization* scores, and *self-esteem* scores, controlling for pretest *total victimization* scores, *cyberbullying total* scores, and *self-esteem* scores. Using Wilks' Lambda, the one-way MANCOVA did not reveal a significant group difference effect on *victimization*, *cyberbullying*, and *self-esteem* scores at posttest, $\Lambda = 0.97$, $F(3, 161) = 1.44$, $p = .234$, $\eta^2 = .026$. Furthermore, the researcher conducted a one-way MANCOVA to examine group effect on delayed posttest scores. Using Wilks' Lambda, the one-way MANCOVA did not reveal a significant group difference effect on *victimization*, *cyberbullying*, and *self-esteem* scores, $\Lambda = 0.95$, $F(3, 160) = 3.06$, $p = .030$, $\eta^2 = .054$. As seen in Table 16 in Appendix H, students in the intervention condition had significantly lower total victimization scores at delayed posttest ($M = -.16$, $SD = .66$) than students in the control condition ($M = .16$, $SD = 1.23$), indicating that students who were in the intervention self-reported lower victimization scores. This may indicate that students who participated in the intervention class demonstrated more self-protection behaviors than those who did not participate in the intervention class.

Additionally, the researcher examined the effect of condition on *tell parents* and *tell teachers* variables at posttest and delayed posttest. Table 17 of Appendix H demonstrates that the researcher conducted a one-way MANCOVA to examine the effect of condition (control versus intervention) on posttest *tell teachers* scores and *tell parents* scores, controlling for pretest scores. Using Wilks' Lambda, the one-way MANCOVA did not reveal a significant group difference effect on *tell parents* and *tell teachers* scores at posttest, $\Lambda = 0.99$, $F(2, 163) = .16$, $p = .853$, $\eta^2 = .002$. Furthermore, scores at delayed posttest for *tell parents* and *tell teachers* were also examined for any effect of condition. As shown in Table 18 of Appendix H, using Wilks' Lambda, the one-way MANCOVA did not reveal a significant group difference effect, $\Lambda = 0.99$, $F(2, 163) = .37$, $p = .695$, $\eta^2 = .004$.

Qualitative response set for research question one. The qualitative findings consisted of responses to the open-ended question "What are some things you can do that could reduce the possibility that you might be cyberbullied?" Responses to this question can be found in Table 19 of Appendix H. One of the most frequent responses, "Be careful what you post," was offered at a noticeable increase from pretest to posttest for the treatment group, but this response decreased for the control group. An additional response, "Limit time online," was also offered at a noticeable increase from pretest to posttest for the treatment group. This increase was not noted for the control group. As also shown in Table 19 of Appendix H, other student answers were coded as "Privacy

settings." The treatment group offered this response at a more noticeable increase from pretest to posttest than did the control group.

An additional set of answers were coded as "I don't know." This response, though small, decreased for treatment group participants but remained stable for control group participants. More student answers were coded as "Do not social network" in the control group across the three time points than they were in the treatment group. As such, it would appear that control group participants felt that avoiding social networking was a possible solution to avoid cyberbullying (see Table 19 of Appendix H).

Research Question 2

The second research question asked if sixth-grade students who participated in a cyberbullying prevention program demonstrated greater bystander responsibility behaviors (e.g., reporting, supporting, and intervening) at posttest than at pretest than did those who did not participate in the program. For Research Question 2, the dependent variables were *self-bystander* scores as well as *other-bystander* scores at posttest and delayed posttest. As with previous analyses, standardized scores were used. To examine group differences, the independent variable was condition (i.e. intervention versus control). Because the intervention was conducted over time, pretest scores (i.e., *self-bystander* and *other-bystander*) were used as covariates to control for baseline measures. To analyze the second research question, four analyses of covariance (ANCOVAs) were conducted to examine group differences at posttest and delayed posttest, using pretest scores as covariates. Because these variables were not significantly related to the other

variables (e.g., total victimization scores), the analyses conducted were ANCOVAs, rather than MANCOVAs. Specifically, MANCOVAs were neither appropriate nor necessary.

Table 20 of Appendix H demonstrates that a one-way ANCOVA was conducted to examine the effect of condition (control versus intervention) on posttest *self-bystander* scores. The one-way ANCOVA did not reveal a significant group difference effect on posttest self-bystander scores, $F(1, 165) = .01$, $p = .942$, $\eta^2 < .001$. Furthermore, as shown in Table 21 of Appendix H, an ANCOVA was also conducted to examine group effect on delayed posttest scores. The one-way ANCOVA did not reveal a significant group difference effect on delayed posttest *self-bystander* scores, $F(1, 165) = 2.11$, $p = .149$, $\eta^2 = .013$.

Additionally, the effect of condition was examined for *other-bystander* scores at posttest and delayed posttest, controlling for pretest scores. Table 22 of Appendix H demonstrates that a one-way ANCOVA was conducted to examine the effect of condition (control versus intervention) on posttest *other-bystander* scores. The one-way ANCOVA did not reveal a significant group difference effect on posttest *other-bystander* scores, $F(1, 165) = .64$, $p = .426$, $\eta^2 = .004$. As shown in Table 23 of Appendix H, a one-way ANCOVA was also conducted to examine group effect on delayed posttest scores. The one-way ANCOVA did not reveal a significant group difference effect on delayed *other-bystander* scores, $F(1, 165) = 1.72$, $p = .192$, $\eta^2 = .010$.

Qualitative response set for research question two. There were two additional open-ended bystander questions that were coded for frequencies and percentages. The first was "What do you think or feel if you see that someone has posted hurtful material about another person online?" One coded response offered by participants was "Have not witnessed." The treatment group demonstrated a decrease in this response from pretest to posttest while the control group remained stable. Additional answers were coded as "Wants to intervene," which slightly increased in the treatment group from pretest to posttest but decreased in the control group for the same assessment period. Finally, a decrease from pretest to posttest occurred in treatment group responses that were offered and coded as "Want to report" (see Table 24 of Appendix H). The control group remained consistent, reporting this response across all three assessments at the same rate.

The final open-ended bystander question asked, "Why do you think that many bystanders do not speak up or take action when they witness or are aware of students being cyberbullied?" Though there were no significant differences noted by condition, nearly 50% of participants indicated that students choose not to get involved or make reports for "Fear of Retaliation" (see Table 25 of Appendix H).

Research Question 3

The third research question asked if sixth-grade students who participated in a cyberbullying prevention program would demonstrate greater *self-esteem* scores as measured by Rosenberg's 1965 Self-Esteem Scale at posttest than at pretest compared to

those who did not participate in the program. The analysis for Research Question 3 was conducted in two parts. Because it was determined that *self-esteem* scores were related to *cyberbullying* and *victimization* scores, the dependent variable for Research Question 3 was accounted for in the analyses for Research Question 1. As with previous analyses, standardized scores were used. To examine group differences, the independent variable was condition (i.e. intervention versus control). Because the intervention was conducted over time, pretest scores were used as covariates to control for baseline measures. To analyze the third research question, two multivariate analyses of covariance (MANCOVAs) were conducted to examine group differences at posttest and delayed posttest, using pretest scores as covariates. As shown in Table 15 of Appendix H, the one-way MANCOVA did not reveal a significant group difference effect on *self-esteem* scores at posttest, $\Lambda = 0.97$, $F(3, 161) = 1.44$, $p = .234$, $\eta^2 = .026$. Furthermore, a one-way MANCOVA was also conducted to examine group effect on delayed posttest scores. Using Wilks' Lambda, the one-way MANCOVA did not reveal a significant group difference effect on *self-esteem* scores, $\Lambda = 0.95$, $F(3, 160) = 3.06$, $p = .030$, $\eta^2 = .054$ (see Table 16 of Appendix H).

Additionally, a one-way analysis of covariance (ANCOVA) was conducted on posttest *self-esteem* scores, controlling for pretest *self-esteem* scores. Additionally, differences at delayed posttest were measured using the same type of analyses. As shown in Table 26 of Appendix H, the results revealed that condition did not have a significant effect of on posttest *self-esteem* scores, $F(1, 165) = .01$, $p = .934$, $\eta^2 = .001$. Finally, as

shown in Table 27 of Appendix H, a one-way ANCOVA was conducted to examine the effect of condition (control versus intervention) on delayed posttest *self-esteem* scores, controlling for pretest *self-esteem* scores. The results revealed that condition did not have a significant effect on delayed posttest *self-esteem* scores, $F(1, 164) = .55$, $p = .461$, $\eta^2 = .003$.

Summary

There were 168 participants in the current study. Each participant was randomly assigned to treatment and control groups for 8 weeks. Students in the treatment group reported to the cyberbully prevention class that was using the aforementioned curriculum. This curriculum was developed by the researcher and based on best practices as suggested in the research literature. Participants took assessments across three different time points. Pretests included the Rosenberg (1965) Self-Esteem Scale, the Adapted Cyber Savvy Survey (Willard, 2011), and a demographic questionnaire. Posttests and 3-week delayed posttests included the Rosenberg Self-Esteem Scale and the Adapted Cyber Savvy Survey. The reliability of these instruments was examined and will be further discussed in the following chapter. The Adapted Cyber Savvy Survey also included three qualitative questions, which were examined using frequencies and percentages of developing themes.

Research questions asked if the cyberbully prevention class made a difference in participants' cyberbullying, victimization, and bystander behaviors. Results indicated that no significant differences were examined between groups regarding cyberbullying

and bystander behaviors from pretest to posttest to delayed posttest. Additionally, no significant difference was examined from pretest to posttest regarding victimization behaviors. However, the intervention group displayed a decrease in self-reported victimization at delayed posttest compared to students in the control group. In the following chapter, the researcher will discuss these findings, the implications for practitioners, and the strengths and weaknesses of this study and will make suggestions for future research.

CHAPTER V

DISCUSSION

The goal of this study was to examine the effects of a preventative cyberbully program on a population of sixth-grade students. Students were randomly assigned to a treatment or control group. Students assigned to the treatment group attended an 8-week program for cyberbully prevention during health class while students assigned to the control group remained in health class for 8 weeks. Both groups of students participated in pretest surveys the week before program implementation. Pretest surveys included the following: (a) the Rosenberg (1965) Self-Esteem Scale, which is a 10-question survey assessing the self-esteem of adolescents (see Appendix D); (b) the Adapted Cyber Savvy Survey (Willard, 2011), which includes 12 questions that measure social networking use, cyberbullying/victimization behavior and experience, and bystander responsibility (see Appendix E); and (c) a demographic questionnaire (see Appendix F). After the intervention, students in both groups retook the Rosenberg (1965) Self-Esteem Scale and the Adapted Cyber Savvy Survey (Willard, 2011). These surveys were also administered a third time, approximately 3 weeks after completion of the intervention.

Results from the assessments indicated no significant difference from pretest to posttest to delayed posttest between the treatment and control groups regarding cyberbullying behavior or bystander responsibility. Additionally, no significant difference was found in students' self-reported victimization from pretest to posttest but

results did indicate a significant difference at delayed post-test with intervention group students reporting lower victimization. Furthermore, no significant difference was established for self-esteem by group, but rather all students demonstrated an increase in self-esteem across the three assessments. In the following paragraphs, the researcher will describe these findings in further detail and will explore the strengths and limitations of this study and the implications for future researchers and practitioners.

Findings

Internet and Cell Phone Use

Nearly all of the students who participated in this study reported having computer access at home. Of those who participated in the study, 7 out of 10 reported "less than 1 hour per day" of Internet use for social purposes with an additional 2 out of 10 reporting "2–3 hours per day" of Internet use for social purposes. About 6 out of 10 students reported having a social networking profile. This finding is slightly higher than a similar finding of Pew Internet and American Life, which suggests that 45% of 12-year-olds have social networking profiles (Lenhart, Purcell, et al., 2010). A possible explanation for the higher number of social networking profiles in this particular study may be related to higher socio-economic status of the participants. Even though social networking sites prohibit students under 13 years of age from using the sites, many students under 13 years of age lie about their age to create profiles, and research suggests that parents either do not know or support their children in creating profiles (Boyd, Hargittai, Schultz, & Palfrey, 2011). During implementation of the preventative cyberbullying program of this

study, students in the treatment group were made aware of this social networking policy, and it was reiterated to the students that if they were underage and were using social networking sites, they should discuss this with their parents. Students in the treatment group were also assured that the curriculum of the preventative cyberbullying program was meant to prepare them for responsible social networking when they do come of age. While many participants in the study reported social networking use and were underage according to the privacy policy, the researcher wanted to avoid circumventing parent permission when additional students became interested in social networking due to the curriculum.

In addition to computer access and internet use, 4 out of 5 students who participated in this study reported having their own cell phones. This is fairly consistent with similar research from Pew Internet and American Life Project, which suggests that 75% of teens own cell phones (Lenhart, Ling, et al., 2010). Lenhart, et al. reported that most adolescents get their first cell phones in middle school. Over half of adolescents who participated in Lenhart, Ling, et al.'s study reported using their cell phones for texting only 1 hour per day or less with an additional 1 out of every 10 students admitting to 2–3 or 4–5 hours of the same use per day. Lenhart, Ling, et al. reported that texting surpassed face-to-face and telephone conversations as the primary mode of communication among teens.

Findings from this study about students' use of Internet and cell phones could have important implications for educators. Due to the prevalence of texting and social

networking as a primary means of teens' communication with peers, educators should be aware that cyberbullying can easily occur with these modes of communication. Because only 6 out of 10 participants reported parent monitoring for cell phone and Internet use, there may be a need for parent education programs about cyberbullying. About ¼ of the students who participated in this study used their laptops or smart phones away from the common living areas in their homes, reducing the likelihood of parental monitoring. Additionally, parents may be unaware of how to educate children about protecting themselves on the Internet, so educators may need to take the lead and address appropriate communication skills for Internet and cell phone use (Dehue et al., 2008). Because trends in electronic communication change so quickly, educators should seek ongoing training in these communication skills. There are many local and online offerings that can provide ongoing training to counselors and librarians. Additionally, this information should be shared with teachers during faculty meetings or in-service trainings. It may be beneficial to meet with administrators to discuss the findings of this and similar studies before they make decisions about trainings necessary for faculty members.

Cyberbullying Behaviors

In examining the results from the three rounds of surveys, the researcher found no significant results regarding cyberbullying behaviors by condition from pretest to posttest to delayed posttest. A possible explanation for these findings may be that self-reported cyberbullying behaviors were already so low at pretest that a significant decrease would

be unlikely. This lack of significant results may also suggest that students who participated in this study by self-reporting cyberbullying behaviors may have benefited from more targeted instruction about how to appropriately interpret or respond to social cues in electronic communities. Perhaps cyberbullies can benefit from more intense training, possibly in smaller groups, to work on deficits suggested by the Social Information Processing Theory (Crick & Dodge, 1994). Social Information Processing Theory is based on a 6-step process to address how children interpret and react to social cues in social situations. The 6-step process includes: (1) encoding social cues, (2) interpreting social cues, (3) clarifying goals, (4) accessing or constructing responses, (5) choosing responses, and (6) enacting behaviors (Crick & Dodge). Students who engage in cyberbullying behaviors may benefit from exposure in smaller intimate settings to more social role playing and scenarios with positive outcomes to develop and experience success with a positive response set. This may also increase students' sense of self-efficacy, contributing to a possible boost in their self-esteem. Additionally, role playing and scenarios may give students perspective, which may help those who misinterpret cues to explore other response options. The concept that experience with positive peer interactions will expand the schema is reflected in Social Information Processing Theory (Crick & Dodge) and is suggested by Symbolic Interaction Theory. The cues or symbols in communication are important to social interactions, and how one chooses to react to those cues or symbols not only influences feedback from others but also develops sense of self. Encouraging students to explore all of the possible intentions of others may

prevent some online negative interaction. Additionally, teaching students to support, report, and intervene on behalf of others may also alleviate cyberbullying behaviors and enhance self-efficacy and self-esteem. As such, cyberbully prevention programs aimed at teaching these skills should be explored by practitioners. In examining preliminary data from pretest surveys, the researcher found a correlation between lower pretest scores for self-esteem and higher total scores for cyberbullying, which suggested that the participants in this study who self-reported cyberbullying behaviors also self-reported lower self-esteem. This is consistent with the findings of Hinduja and Patchin (2010), findings that suggested that students who engage in cyberbullying behaviors do exhibit lower self-esteem than do students who do not engage in cyberbullying behaviors. Preliminary data for this study also indicated a correlation between total victimization scores and lower self-esteem scores and a correlation between higher victimization scores and higher cyberbullying scores. This suggests that students who self-reported cyberbullying behaviors also reported higher levels of victimization. In the research literature, this phenomenon is referred to as the bully/victim phenomenon (Didden et al., 2009; Hinduja & Patchin, 2008). The bully/victim phenomenon is supported by prior research demonstrating that as many as 85% of cyberbullies have also been victims of bullying at one time or another (Didden et al., 2009). Many students who have been bullied in the traditional sense have chosen cyberbullying as a way to retaliate anonymously (Hinduja & Patchin, 2008). Possibly, because many cyberbullies have also been victims of bullying either electronically or in the traditional sense, these types of

cyberbullies could be assuming role expectations as suggest by Symbolic Interaction Theory. Symbolic Interaction Theory suggests that these cyber bully/victims are choosing to retaliate online because that is what society expects from them. Instead of participating in role-playing, cyber bully/victims may need to participate in role-making to expand their available response sets. Additionally, cyber bully/victims may benefit from more intense and smaller group training focusing on alternative ways to respond when they are cyberbullied. Allowing cyber bully/victims to experience positive feedback when they correctly apply these new skills will help cyber bully/victims assign new meaning to situations and will influence their future behaviors. According to Symbolic Interaction Theory, behavioral expectations influence interactions and with the self (Kanter, 1969). It is also possible that longer lessons over an extended period of time may increase program effectiveness. A school-wide program implementation would also allow students, teachers, and staff to support one another in an effort to reduce cyberbullying behaviors.

Victimization Behaviors

The second part of Research Question 1 asked if sixth-grade students who participated in a cyberbullying prevention program would report fewer occurrences of cyberbullying victimization at posttest and delayed posttest than at pretest. In examining victimization scores, the researcher did not find an effect of condition from pretest to posttest. However, the intervention group demonstrated lower self-reported victimization at delayed posttest in comparison to the control group. Decrease in victimization scores at

delayed posttest rather than at posttest may be an issue of timing. The Adapted Cyber Savvy Survey asked if victimization had occurred in the last 2 months. Given that internet safety and protective factors were not taught until the third, fourth, and fifth weeks of the program, online self-protective behaviors may not have started until half way through the intervention. Because the consequences of online victimization can carry over in to daily activities in classrooms and can disturb learning environments, educators should make every effort to reduce these online occurrences (Chibbaro, 2007; Mason, 2008). Results from this study suggested that prevention programs at schools focusing on Internet safety and online self-protection may help reduce online victimization. As suggested by Hinduja and Patchin (2007), prevention programs at schools may be implemented as a permanent piece of the social-emotional component of health education in sixth grade.

The need for permanent prevention programs for cyberbullying was also supported by responses to the following open-ended question: "What are some things you can do that could reduce the possibility that you might be cyberbullied?" Students in the treatment group showed an increase from pretest to posttest in the response "Be careful what you post," and students in the control group showed a decrease in this response. This may also validate that teaching Internet safety and online self-protection may help students avoid becoming victims to cyberbullying. Additionally, students answered this same question at pretest with responses that were coded as "Limit time online." Students in the treatment group increased their use of this response increased, but students in the

control group decrease their use of this response. The slight increase in this response from pretest to posttest for the treatment group may suggest that a few students remembered that spending more time online increases the likelihood of online victimization. This was a concept that was explored during intervention. This is also supported in the research literature as a characteristic of the cyber victim because researchers found that increased time online contributed to the likelihood that students may be victimized online (Hinduja & Patchin, 2007; Katzer et al., 2009; Mishna et al., 2009; Subrahmanyam & Greenfield, 2008). However, this response decreased at delayed posttest which may suggest that this concept was not necessarily retained and that it should be reiterated throughout the curriculum for preventative cyberbullying programs.

Other student responses to the question about preventing cyberbullying were coded as "Privacy settings." Students in the treatment group increased this response from pretest to posttest but decreased from posttest to delayed posttest. Students in the control group also increased this response from pretest to posttest, but the increase was much smaller than it was for the treatment group. Increased use of this response by students in the treatment group may indicate that these students became aware of privacy settings by the end of the program but did not retain this information as an important way to reduce the possibility of being cyberbullied. The small increase for the "Privacy settings" response for the control group may indicate that students were seeking socially acceptable responses because they had already been exposed to the pretest and were aware that they were being studied.

An additional set of responses to the question about preventing cyberbullying were coded as "I don't know." Students in the treatment group noticeably decreased this response from pretest posttest, but then use of this response remained stable from posttest to delayed posttest. Similarly, students in the control group slightly decreased this response from pretest to posttest, suggesting that these students may have been seeking more socially appropriate responses to the survey question.

Responses to the question "What are some things you can do that could reduce the possibility that you might be cyberbullied?" were coded as "Do not social network." This response was by students in the treatment group much less than it was by students in the control group, which may also suggest that students in the control group may have been seeking more socially appropriate responses to the survey question. Students may want to do the right thing but may not be aware of what that entails. As such, students may willingly choose to adopt appropriate online behavior if they are educated about how to do so.

In summary, students in the control group reported that avoiding social networking was a possible solution to avoid cyberbullying, but students in the treatment group may have learned other protective behaviors, such as "Increase privacy settings" and "Be careful what you post." Previous researchers have suggested that one of the best ways to protect against cyberbullying victimization is to be cognizant of what photos and information are being posted on social networking sites (Hinduja & Patchin, 2010). This

entire response set supported the idea that teaching online safety and self-protection may reduce cyberbullying victimization.

Bystander Behaviors

Research question 2 asked if sixth-grade students who participated in a cyberbullying prevention program would demonstrate greater bystander responsibility behaviors, such as reporting, supporting, and intervening, at posttest than at pretest than would students who did not participate in the program. In examining bystander behavior, the researcher found no significant difference between groups. A possible reason for this could be that the students in the treatment and control groups operated in such close proximity to each other. Students in the control group interacted with students in the treatment group in the school environment and in the electronic world on a daily basis. When students in the treatment group exhibited new skills, students in the control group might have followed their lead. Another possible explanation for these findings may be that self-reported bystander behavior was very low at pretest making it difficult to exhibit further decrease. Though there were no significant findings in the quantitative analysis for research question 2 and very little difference was noted in the qualitative responses offered regardless of group, some of the response set for bystander behavior is worth exploring.

The following is the first bystander question: "What do you think or feel if you see that someone has posted hurtful material about another person online?" Students in the treatment group offered responses that were coded as "Have not witnessed" at a lower

rate at posttest and delayed posttest than that at pretest, and students in the control group offered the same response at a rate that remained stable across all three assessments. Though small, these differences may suggest that students are not aware of what behaviors might be considered cyberbullying until they are exposed to prevention curriculum. Researchers have also suggested that students may be unaware that they are engaging in cyberbullying behaviors until they are aware of what cyberbullying might entail (Vandebosh & Van Cleemput, 2008). As such, raising students' awareness about what behaviors constitute cyberbullying may have resulted in an increase in the number of students who reported witnessing it. Though not measured, an additional point of interest was that students in the treatment group demonstrated an increase in appropriate vocabulary about cyberbullying. A common language can be beneficial for students when they are trying to communicate with peers and adults about occurrences online. Symbolic Interaction Theory suggests that participants in social situations have common sets of verbal and nonverbal symbols to make social roles more clear (Boss et al., 1993). As such, teaching vocabulary to describe cyberbullying could be an important component to prevention programs and should be also implemented as a regular segment in health education classes. Hinduja and Patchin (2007) also suggested that schools expand their health education programs to include lessons about cyberbullying.

Other student responses to the first bystander question were coded as "Wants to intervene." Students in the treatment group slightly increased this response from pretest to posttest, but this response remained stable from posttest to delayed posttest. In

comparison, students in the control group offered this response at a decreased rate from pretest to posttest. Again, these numbers were small, but there may have been a few students who benefited from portions of social-skills training during the intervention, which increased self-efficacy about intervening. Perhaps more exposure to this type training would result in further increase of cyberbullying intervention, which may be worth exploring in future research.

An interesting decrease occurred in treatment group responses that were coded as "Want to make a report" for the first bystander question. Students in the treatment group offered this response at a decreased rate from pretest to posttest. The rate of this response for the control group remained consistent, with students in the control group consistently reporting this response across all three assessments. This result may suggest that a few students in the treatment group felt empowered to handle situations themselves rather than involving teachers or parents. This result might also suggest a decrease in victimization because students have less to report. The following is the final open-ended bystander question: "Why do you think that many bystanders do not speak up or take action when they witness or are aware of students being cyberbullied?" Though there were no significant differences noted by condition, an overwhelming number of students from both groups (in excess of 50% across all three assessments) indicated that other students choose not to get involved in or make reports about cyberbullying for "Fear of retaliation." Chibbaro (2007) also cited fear of retaliation as a primary motivator in refraining from making reports to adults. This intervention curriculum used in this study

did not focus much on how to handle retaliation, other than making additional reports. Specifically, the assistant principal at the school where this study was conducted spoke on this during one of the 8 lessons of the prevention program. How to handle retaliation may need to be further addressed, which can be important information for practitioners working with students. Some researchers have suggested that school administrators offer clear policies and consequences about cyberbullying (Chibbaro, 2007; Fredrick, 2009; Willard, 2006). Because fear of retaliation is such a powerful and legitimate concern, perhaps retaliation should be specifically addressed in these school policies. Specifically, retaliation for any type of bullying should be addressed in the student code of conduct and should accompanied by a ladder of consequences including in-school suspension, transfer to another campus, or possibly alternative-school placement, depending on the severity of the behavior.

Though students may not be inclined to engage in positive bystander behaviors such as supporting, reporting, or intervening when they witness cyberbullying, many students indicated feeling sad or angry when they witnessed cyberbullying. This is congruent with research suggesting that even though students feel uncomfortable when they witness cyberbullying, they are unlikely to intervene or take action (Limber, 2011; Willard, 2006). Frey et al. (2005) suggested that more focus on social, emotional, and friendship skills would increase bystander responsibility. Perhaps not enough time was dedicated to this component of the preventative program, or perhaps this component

needs to be further explored and developed. Changing the way bystanders view themselves and their social responsibly may involve more than 8 weeks of curriculum.

Self-Esteem

Research question 3 asked if sixth-grade students who participated in a cyberbullying prevention program would demonstrate greater self-esteem scores as measured by Rosenberg's 1965 self-esteem scale from pretest to posttest than would students who did not participate in the program. Though no significant difference was demonstrated between treatment and control groups, an interesting trend occurred in self-esteem scores for all students who participated in this study, regardless of group assignment. As a whole, self-esteem scores increased from pretest to posttest and again from posttest to delayed posttest. This increase may be attributed to timing of this study, which occurred close to school breaks for holidays. Pretests were administered in January following holiday break, posttests were administered just before spring break in mid-March, and a delayed posttest was administered 2 weeks following spring break. Increase in self-esteem scores could also be attributed to maturation of the students (Rosenberg, 1965), which may pose a threat to the internal validity of this study. Though there is no research based evidence, sixth-grade students may feel better about themselves on the whole as the school year progresses. The transition from fifth to sixth grade is stressful, so getting closer to the end of that transition year may boost students' self-esteems. As students come from a variety of elementary schools to one larger middle school, students are challenged to renegotiate group norms and belonging. Also,

students in the control group participated in the health curriculum about body systems at the same time that students in the treatment group participated in the prevention curriculum about cyberbullying. Consequently, some components of the health curriculum might have influenced the self-esteem of students in the control group. Additionally, many students in both groups periodically reported to the school's counseling team during the study to work out peer conflict. This and other outside influences may have caused the observed increase in students' self-esteem. As previously mentioned, correlations explored in the preliminary analysis indicated that students with higher self-esteem were less likely to be involved in cyberbullying than were students with lower self-esteem. This finding is similar to findings in prior research suggesting that both cyberbullies and cyberbully victims may demonstrate lower self-esteem than will their peers who have not been involved in cyberbullying (Hinduja & Patchin, 2010).

Another finding about self-esteem was established in the pretest data when the researcher examined relationships between the variables *tell teachers* and *tell parents* and found that students who were already willing to report cyberbullying to teachers or parents prior to intervention demonstrated higher self-esteem on the Rosenberg Self-Esteem Scale. This result suggests that students who already have higher self-esteem feel more confident making reports to adults; this result may also support that raising other students' self-esteem through social-emotional curriculum may increase students' willingness to seek help.

Strengths and Limitations

Strengths

There were a number of strengths and limitations to this study. Previous researchers have indicated that middle school is the optimal time to implement cyberbully prevention because middle school children experience cyberbullying more than do children at other grade levels (Lenhart, Purcell, et al., 2010; Limber, 2011). As such, a prevention program for students in sixth grade is ideal. Exploring options and trends in earlier grades may be an area of future direction. The prevention program for this study involved a variety of school personnel, such as the counseling team, the assistant principal, the librarian, and the school resource officer. Information was also shared with parents. The researcher of this study involved these people as recommended components to prevention programs for cyberbullying (Chibbaro, 2007; Mason, 2008; Patchin & Hinduja, 2009; Willard, 2006). Students' enthusiasm, level of participation in group activities, and response to homework indicates that students in sixth grade are interested in learning more about cyberbullying prevention and self-exploration and -reflection. Additionally, a number of students in the treatment group increased their use of vocabulary and key terms associated with cyberbullying. This was not particularly the aim of this study, but it is a benefit worth mentioning because better vocabulary may help students communicate better with peers and adults in their lives when discussing the topic of cyberbullying.

Limitations

Students in sixth grade may be influenced by factors outside their school communities, so changes in behavior and self-concept may not be attributed to the intervention. Students may be influenced by parenting style, family discord, community involvement, individual personal experiences, and access to positive media messages (Boss, et al., 1993). Additionally, students in sixth grade may be considered underage, by some, for social media use, and parental monitoring may influence online and cell phone interaction (Lenhart, Ling, et al., 2010; Limber, 2011). As indicated in the demographic findings from this study, a high number of students report low parent monitoring. Because of these factors, students' use of technology tools for peer communication may be limited. The students who participated in this study were from homes with above-average socioeconomic status; as such, results from this study may be generalized only to similar populations of sixth-grade students. Additionally, use of self-report surveys in this study may have elicited socially desirable responses. Crick and Werner (1998) indicated that relationally aggressive students tend to underreport negative behaviors on self-assessment tools. Practitioners should be cognizant that these types of behaviors may go underreported and should implement prevention programs aimed specifically at these types of offenders. As previously mentioned, those students who choose to engage in cyberbullying behavior may benefit from smaller group, more intense instruction aimed at perspective taking and increasing self-esteem.

Because students matured during the course of this study, it may have been more appropriate to conduct this during the fall semester when peers may not have been as comfortable with each other. In addition, students in the treatment group interacted online with students in the control group, so students in both groups may have been influenced by one another. Ideally, the treatment and control groups should have been more isolated from each other. Perhaps these groups should have been located at two different middle school campuses. Students in the control group often approached the instructor to inquire when they would get to be in the cyberbully prevention class, indicating that students in the treatment group may have been conversing with students in the control group about activities that were occurring in the prevention class.

The length of the prevention program for this study seemed optimal given the researcher's limited resources of time and finances. Lack of increase in bystander responsibility and lack of decrease in self-reported cyberbullying behaviors may indicate that students would benefit from a longer, more intense prevention program. An additional complication may have been that the student groups were too large. Because health class met twice per day and once per week on this particular campus, the researcher was required to teach groups of students in excess of 80 students per class period. Smaller, more focused groups may have made the program more personal to students. Merrell et al. (2008) successfully implemented shorter, more direct programs to smaller groups of students.

Due to time restraints, the researcher did not implement a pilot program using this

curriculum for this study, which may have proven beneficial. An additional limitation in this study included instrumentation. Because cyberbullying is a fairly new phenomenon, not much in the way of instrumentation exists. Many researchers have adapted scales from traditional bullying surveys or have gathered information using more qualitative methods. Willard's (2011) original Cyber Savvy Survey was developed as an information-gathering instrument to be used in school settings and can provide educators with useful data about school safety and trends that may exist on their particular campuses. Willard's original survey was not necessarily designed as a scientific research tool or as a pretest and posttest measure. As previously mentioned, the inter-item reliability of the Adapted Cyber Savvy Survey was examined using Cronbach's alpha and ranged from questionable to unacceptable. The scale items were categorized as victimization items, cyberbully items, and bystander items. The victimization items (α = .667) demonstrated questionable inter-item reliability, the cyberbully items (α = .438) demonstrated unacceptable inter-item reliability, and the bystander items (α = .606) demonstrated questionable inter-item reliability. Future researchers may need further development of this assessment tool to more effectively measure elements of cyberbullying.

An additional issue with assessment was that the delayed posttest was implemented only 3 weeks after the original posttest. This may not have been enough time to examine retention of skills and concepts. Because of time restraints, administering the delayed posttest 3 weeks after the original posttest was the only option

for this study. Extending the time between posttest and delayed posttest may offer a better indication of student retention and should be a direction for any future research.

Future Research

One important direction for future research would be to further develop assessment instruments to increase reliability. As research on cyberbullying continues to mature, reliability of assessment instruments will be an important factor. It may also be important to develop an assessment for parent perceptions of adolescent cell phone and internet use. As technology changes so quickly, work to maintain current assessment tools will be important. Additionally, other varieties of implementation should be explored (e.g., smaller groups, timing of curriculum implementation, more frequent sessions). Adding a parent education component for cyberbully prevention would also be worth exploring. Though the prevention curriculum for this study did offer a parent education night, the parent education night was implemented after the program rather than during the program. Partnering with parents to allow them to share the same messages at home would increase consistency across environments. Additionally, booster lessons for teacher and administrator education may also be beneficial for when students choose to report cyberbullying. Time did not allow for booster lessons to occur following the program, but both Andreou et al. (2008) and Merrell et al. (2008) suggested using booster lessons in the classroom. As such, students who participated in this study, who are now seventh-grade students, may benefit from follow-up lessons for the coming school year.

Implications for Practitioners

Though no significant results were noted, results from this study do suggest that teaching lessons in cyberbullying prevention to sixth-grade students in health education classes is beneficial for many reasons. First and foremost, there is some evidence that cyber victimization is reduced when students learn ways to protect themselves online. As such, programs for cyberbullying prevention should be implemented as a regular part of health curriculum. Whether reporting was low or due to socially desirable self-reports, there was no apparent decrease in self-reported cyberbully behavior. As such, identified cyberbullies may benefit from additional instruction in smaller groups where they may feel more comfortable reporting their behavior. Though students who participated in this study reported feeling sad and upset when they witnessed others being cyberbullied, many students indicated that they choose not to take action for fear of retaliation. This suggests that administrators should create strict consequences for students who engage in retaliation and communicate those clearly. Additionally, an anonymous reporting system should be available to students. Lastly, results from this study indicate that self-esteem appears to be correlated with reporting behavior. As such, it may be beneficial to improve students' self-esteems, which could be incorporated as a component for health education classes in sixth grade.

Summary

In this study, the researcher examined the effects of a cyberbully prevention curriculum on sixth-grade students. Students who participated in this study were

randomly assigned to a treatment or control group. Students in the treatment group received 8 weeks of cyberbully prevention curriculum while students in the control group remained in their regularly scheduled health class. The effectiveness of the program was measured using the adapted Cyber Savvy Survey (Willard, 2011) and the Rosenberg (1965) Self-Esteem Scale. These assessments were administered pretest, posttest, and delayed posttest to students in both groups. Additionally, a demographic survey was used. The research questions for this study were about cyberbully/victim behaviors, bystander behaviors, and self-esteem. The researcher of this study hypothesized that students in the treatment group would report fewer behaviors of cyberbullying and victimization at posttest and delayed posttest than they did at pretest. The researcher also hypothesized that students in the treatment group would report greater bystander responsibility behaviors, such as reporting cyberbullying, intervening in cyberbullying, and supporting cyberbully victims. Lastly, the researcher hypothesized that self-esteem for students in the treatment group would increase. After the three assessments had been administered, the researcher analyzed the results and found that results for cyberbullying behaviors between groups were not significant from pretest to posttest to delayed posttest. Nor were they significant for self-reported victimization from pretest to posttest but the treatment group did exhibit significantly lower self-reported victimization at delayed posttest. This suggests students in the treatment group benefitted from the prevention curriculum. Self-Esteem for students in both the treatment and the control groups increased across all three tests, but no significant findings developed between

groups. Pretest findings did suggest that students with higher self-esteem were more already more likely to report cyberbullying to teachers or parents. This finding suggests that programs designed to increase self-esteem and to educate students about cyberbully prevention may increase reports of cyberbullying.

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APPENDIX A

Permission to Conduct Research

Denton Independent School District

Dr. Ray E. Braswell,
Superintendent
e-mail:
rbraswell@dentonisd.
org

1307 N. Locust St.
Denton, TX 76201

P. O. Box 2387
Denton, TX 76202-2387

940-369-0003 Fax: 940-369-4982

October 24, 2011

Jennifer Carter
4305 Wilmette
Corinth, TX 76208

Dear Ms. Carter:

I am pleased to inform you that your request "***The Effects of a Cyber Bully Prevention Program on Middle School Students***" has been approved by Crownover Middle School, and the Denton ISD Academic Programs Division.
Please contact the campus when you are ready to initiate your research activities.

Sincerely yours,

Ray Braswell

Superintendent
Denton Independent School District

APPENDIX B

Participant Recruitment Letter and Consent to Participate in Research

Dear Cowboy Parents ~

I hope that your 6th grader is adjusting well and enjoying middle school. With the transition to middle school, your child is experiencing a number of developmental changes in physical appearance, cognitive processes, and social/emotional adjustment. Making friends in a new environment and having positive interactions with peers can be an important component to your child's self-concept and academic success.

In order to promote a positive and respectful school climate, school counselors provide a variety of social- emotional learning programs to our students. We typically provide your child with bully prevention education, per Texas House Bill 283. More recently, technology has become a major component in the way our students communicate with one another. While most online and text communication between peers is appropriate and positive, current research shows that middle school students are the most at-risk in being involved in or witnessing cyberbullying behaviors.

This spring, I will be educating our sixth grade students, during health class, about bullying, cyberbullying, internet safety, making friends in middle school, texting, and social networking. Students will learn friendship skills, perspective taking, and conflict resolution skills. They will also have the opportunity to practice those skills both in class and as homework assignments. Students will be made aware of the dangers that may exist when they spend excessive time online or in text. They will also become knowledgeable about ways to report and protect themselves online.

I would like the opportunity to include your child in my dissertation study. In addition to participation in the program during health class, your child would be required to take pre-test and post-tests that are completely anonymous. I am a Child Development doctoral student at Texas Woman's University. My research will be supervised by my academic advisor Dr. Sharla Snider. Additional information about the study is included in the attached informed consent.

Whether or not you choose to have your child included in the study, please have your child return this form to his/her history teacher in a sealed privacy envelope (provided). Regardless of participation, every student that returns their form this week will receive a ticket from his/her teacher to be used toward an event on campus at a later date. Those students that agree to participate in the study will also be entered in a drawing to win a variety of $25, $10, and $5 gift cards from local establishments (AMC Movies, Sonic, Pizza Hut, and iTunes).

Should have questions or need further information, I can be contacted at
appreciate your consideration in this matter.

Sincerely,

Jennifer L. Carter, M.A.

_____Yes, I would like for my child_____ to be included in the dissertation study. Please fill out and sign the attached informed consent and initial each page.

_____No, I do not wish for my child _____ to participate in the dissertation study.

TEXAS WOMAN'S UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Title: The Effects of a Cyberbully Prevention Program on Middle School Students

Investigator: Jennifer Carter.....
Advisor: Sharla Snider, PhD.....

Explanation and Purpose of the Research

You are being asked to participate in a research study for Mrs. Carter's Dissertation at Texas Woman's University. I have developed a cyberbullying prevention program to be used with sixth-grade students. I will be teaching our sixth grade students, during health class, about bullying, cyberbullying, internet safety, making friends in middle school, texting, and social networking. Students will learn friendship skills, perspective taking, and conflict resolution skills. They will also have the opportunity to practice those skills both in class and as homework assignments. Students will be made aware of the dangers that may exist when they spend excessive time online or in text. They will also become knowledgeable about ways to report and protect themselves online. You have been asked to participate in this study because you have a sixth-grade student at Crownover Middle School.

Description of Procedures

As a participant in this study, students will be asked to take a pre-test and two post-tests as well as participate in the cyberbully prevention program offered through sixth-grade health class. The pre-test will consist of: a demographic form to collect information such as the age, gender, and ethnicity of your child, a self-esteem scale, and a cyberbullying scale. After they received the cyberbullying curriculum, your child will be asked to complete the self-esteem and cyberbullying scales to see how much they have learned and if participating in the program helped to develop their self-esteem and make them less likely to be a victim of cyberbullying or a cyberbully. The post-test will be repeated several weeks later to see how much your child retained from the program. These pre-tests and post-tests are anonymous and will help me know whether or not this program is effective.

The cyberbully prevention program will take place during health class, once per week for a period of eight weeks. Some students will participate in the first 8-week implementation of the program (treatment group) and some students will participate in the second 8-week implementation of the program (control group). The purpose of this is to measure those students that participate in the program against those students that do not participate in the program.

Potential Risks

Students involved in the program will miss their regularly scheduled health class. During the 8 weeks, students would receive the health body systems curriculum with their peers. When the cyberbully prevention program is complete, students will return to health class and receive the missed health curriculum but possibly by a different instructor.

Students who have been cyberbullied in the past may experience negative emotions. A student assistance counselor is on campus to visit with these students if needed. Additionally, a list of community counselors has been provided for you in case you need to seek outside counseling services. Students will be permitted to withdraw from the study at any time with no penalty.

_____
Initials

Another risk in this study is possible loss of confidentiality. In the assessment of pre-test and post-test data, all identifying information will be excluded. These assessments will be conducted through Psych Data. Psychdata.com is an online survey hosting site that uses a secure URL address and can be set up to keep the survey responses anonymous. Only the researcher, the researcher's advisor, and the statistician will have access to the surveys. Students will need a participant code in order to take pre-tests and post-tests, a master list of participants and participant codes will be kept by the principal researcher in a locked filing cabinet separate from any data collected from the surveys. There is a potential risk of loss of confidentiality in all email, downloading, and internet transactions. Confidentiality will be protected to the extent that is allowed by law.

The researcher will be absent from the computer laboratory where students will be participating and a trained unbiased counselor will supervise survey administration. The assisting counselor will be unaware of participant codes and will not have access to student responses or the master list of participant codes. Computer station dividers will also protect student privacy.

Homework assignments will be submitted directly to the health instructors for participation grades. Because both participants and non-participants will be required to complete homework, the health instructors will not be aware of any student's participation option. Names will be removed from homework assignments before being submitted to the researcher. Additionally, permission and consent forms will be submitted to history teachers in a sealed privacy envelope. Only the researcher will have access to these forms. All data collected will be destroyed within two of years of the conclusion of the study and consent forms will be submitted to the TWU IRB (Institutional Review Board).

Coercion is also a risk. Students who choose not to participate in the research study will receive the same curriculum as other students and there is no penalty for not participating in the research study. Participating in the research study or choosing not to participate will not affect the student's grade in the health class.

Students who choose to participate in the research study will take pre-tests and post-tests in the computer lab in large groups, making loss of anonymity an added risk. Steps to minimize loss of anonymity include providing dividers between computers during pre-test and post-tests. Because all students will participate in the intervention, anonymity will not be an issue during the intervention stage of the study.

Lastly, risk of fatigue is possible. Although the cyberbullying program takes nine and a half hours to complete, it is spread over several months and students will not be spending more than 45 minutes in any one class. This is the regular length of a class period. Students may take a break if needed.

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

Participation and Benefits

Involvement in this study is completely voluntary and you may withdraw from the study at any time. Following the completion of the study, students will participate in a drawing to receive a variety of $25, $10, and $5 gift cards from local establishments (AMC Movies, Sonic, Pizza Hut, and iTunes). If you would like to know the results of this study we will mail them to you.*

_____
Initials

Questions Regarding the Study

You will be given a copy of this signed and dated consent form to keep. If you have any questions about the research study you should ask the researchers; their phone numbers are at the top of this form. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at IRB@twu.edu.

_____	_____
Printed Name of Parent or Guardian	Printed Name of Student
_____	_____
Signature of Parent or Guardian	Signature of Student
_____	
Date	

If you would like to know the results of this study tell us where you want them to be sent:

Email: _____

APPENDIX C

IRB Approval Letter

TEXAS WOMAN'S UNIVERSITY
DENTON DALLAS HOUSTON

Institutional Review Board
Office of Research and Sponsored Programs
P.O. Box 425619, Denton, TX 76204-5619
940-898-3378 FAX 940-898-4416
e-mail: IRB@twu.edu

December 8, 2011

Ms. Jennifer L. Carter
4305 Wilmette Drive
Corinth, TX 76208

Dear Ms. Carter:

Re: The Effects of a Cyberbully Prevention Program on Middle School Students (Protocol #: 16875)

The above referenced study has been reviewed by the TWU Institutional Review Board (IRB) and appears to meet our requirements for the protection of individuals' rights.

If applicable, agency approval letters must be submitted to the IRB upon receipt PRIOR to any data collection at that agency. A copy of the approved consent form with the IRB approval stamp and a copy of the annual/final report are enclosed. Please use the consent form with the most recent approval date stamp when obtaining consent from your participants. The signed consent forms and final report must be filed with the Institutional Review Board at the completion of the study.

This approval is valid one year from December 8, 2011. Any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any unanticipated incidents. If you have any questions, please contact the TWU IRB.

Sincerely,

Kathy DeOrnellas, PhD.

Dr. Kathy DeOrnellas, Chair
Institutional Review Board - Denton

enc.

cc. Dr. Larry LeFlore, Department of Family Sciences
Dr. Sharla Snider, Department of Family Sciences
Graduate School

APPENDIX D

Rosenberg Self-Esteem Scale

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

The scale is a ten item Likert scale with items answered on a four point scale - from strongly agree to strongly disagree. The original sample for which the scale was developed consisted of 5,024 High School Juniors and Seniors from 10 randomly selected schools in New York State.

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

1.	On the whole, I am satisfied with myself.	SA	A	D	SD
2.*	At times, I think I am no good at all.	SA	A	D	SD
3.	I feel that I have a number of good qualities.	SA	A	D	SD
4.	I am able to do things as well as most other people.	SA	A	D	SD
5.*	I feel I do not have much to be proud of.	SA	A	D	SD
6.*	I certainly feel useless at times.	SA	A	D	SD
7.	I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
8.*	I wish I could have more respect for myself.	SA	A	D	SD
9.*	All in all I am inclined to feel that I am a failure.	SA	A	D	SD
10.	I take a positive attitude toward myself.	SA	A	D	SD

Scoring: SA=3, A=2, D=1, SD=0. Items with an asterisk are reverse scored, that is, SA=0, A=1, D=2, SD=3. Sum the scores for the 10 items. The higher the score, the higher the self-esteem.

The scale may be used without explicit permission. The author's family, however, would like to be kept informed of its use:

The Morris Rosenberg Foundation

c/o Department of Sociology

University of Maryland

2112 Art/Soc Building

College Park, MD 20742-1315

References

References with further characteristics of the scale:

Crandal, R. (1973). The measurement of self-esteem and related constructs, Pp. 80-82 in J.P. Robinson & P.R. Shaver (Eds), **Measures of social psychological attitudes. Revised edition**. Ann Arbor: ISR.

Rosenberg, M. (1965). **Society and the adolescent self-image**. Princeton, NJ: Princeton University Press.

Wylie, R. C. (1974). **The self-concept. Revised edition**. Lincoln, Nebraska: University of Nebraska Press.

APPENDIX E

Adapted Cyber Savvy Survey

The Willard's first survey was published in 2007 and was called the Student Needs Assessment Survey. In 2011, Willard changed the survey and changed the name to the Cyber Savvy Survey. The researcher of this study modified the 2011 Cyber Savvy for with the permission of the original author to meet the specific needs of the current study. The researcher renamed the survey as the Adapted Cyber Savvy Survey, which contains the following 12 questions.

The following survey is seeking information from students about cyberbullying. The results of this survey will help your school respond to these concerns. Your responses to thissurvey are anonymous and confidential. (The term *parent* means anyone serving in a parenting role.)

Survey Questions

1. Do you have a social networking account (My Space, Facebook, Google+)?

   _____ Yes

   _____ No

2. If you have a social networking profile, who can look at your personal information and photos?

   _____ My friends only

   _____ My friends and their friends

   _____Everyone

   _____ I don't know who can view my profile

3. How do you make decisions about posting information or photos on your social networking profile?

_____I post whatever I feel like

_____I think about what my friends would think of me

_____I think about people who I know, who might be able to see this, and what they would think about me

_____ I think about people who I do not know, who might see this, and what they would think about me

_____ I do not have a social networking profile

4. What are some things **you can do** that could reduce the possibility that you might be cyberbullied? (Please list all actions you can think of.)

5. In the last two months, have you:

   a. Received online messages or text messages that made you very afraid for your safety?

      _____Yes, once

      _____ Yes, twice

      _____Yes, 3-4 times

      _____Yes 5 or more times

      _____ No

b. Received mean or nasty messages from someone (online or by text)?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

c. Been put down online by someone who has sent or posted cruel gossip, rumors, or other harmful material?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

d. Had someone pretend to be you and send or post material that damaged your reputation or friendships?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

e. Had someone share your personal secrets or images online or by text without your permission?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

f. Been excluded from an online group by people who are being mean to you?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

6. In the last two months, have you:

a. Sent mean or nasty messages to someone (online or by text)?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

b. Put down someone else online (or by text) by sending or posting cruel gossip, rumors, or other harmful material?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

c. Pretended to be someone else to send or post material to damage that person's reputation or friendships?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

d. Shared someone's personal secrets or images online or by text without that person's permission?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

e. Helped exclude someone else from your online group?

_____Yes, once

_____ Yes, twice

_____Yes, 3-4 times

_____Yes, 5 or more times

_____ No

7. If you were being cyberbullied and you could not get it to stop by yourself, would you tell your parents?

___ Very likely

___ Somewhat likely

___ Somewhat unlikely

___ Very unlikely

___ Not sure

8. If you were being cyberbullied at school, would you tell a school staff member (teacher, counselor or principal)?

___ Very likely

___ Somewhat likely

___ Somewhat unlikely

___ Very unlikely

___ Not sure

9. What are some actions you have taken (in the last two months) when you have witnessed someone had posted hurtful material about another person online? (Check all that apply.)

____ Join in and post the same kind of material.

____ Tell others to look at what is happening.

____ Read with interest.

____ Ignore the situation.

____ Contact the person who is being hurt to provide emotional support.

____ Privately tell the person who posted the material that this is not okay.

____ Tell and adult what is happening.

____ Other

10. What do you think or feel if you see that someone has posted hurtful material about another person online?

11. In the last two months, how often have you seen students at your school try to put a stop to situations when they see that someone has posted hurtful material online?

_____ Never

_____ Almost never

_____ Once in a while

_____ Sometimes

_____ A lot of the time

12. Why do you think that many bystanders do not speak up or take action when they witness or are aware of students being cyberbullied?

APPENDIX F

Demographic Questionnaire

Student Demographic Survey

Please take a few minutes and fill out the student demographic survey.

1. What is your gender? _____ Male _____Female
2. What is your ethnicity? (select all that apply)

   _____ White

   _____ Black

   _____ Hispanic

   _____ American Indian

   _____ Asian/Pacific Islander

   _____ Other

3. What is your age? ____ 10 ____11 ____ 12 ____13
4. What are your grades in school?

   _____Mostly A's (90-100)

   _____Mostly B's (80-89)

   _____Mostly C's (70-79)

   _____Mostly Failing (below 70)

5. Do you have a home computer? _____ Yes _____ No
6. Do you have a lap top? _____ Yes _____ No
7. Do you have your own cell phone? _____ Yes _____No
8. Does your cell phone have Internet access? _____ Yes _____No
9. Where do you most often access the internet? (check one)

   ____Common living area of my home

   ____My bedroom

   ____School

   ____ Car

____ Other (please specify) _____

10. How much time to do you spend texting on a school day?

____ One hour or less

____ 2- 3 hours

____ 4-5 hours

____ 5 hours or more

11. How much time do you spend on the Internet on a school day?

____ One hour or less

____ 2- 3 hours

____ 4-5 hours

____ 5 hours or more

12. Do you parents monitor your cell phone use and texting?

____ Never

____ Rarely

____ Sometimes

____ Often

____ Always

13. Do you parents monitor your Internet Use?

____ Never

____ Rarely

____ Sometimes

____ Often

____ Always

THANK YOU for your participation!

APPENDIX G

Cyberbully Prevention Curriculum Syllabus

Cowboys Who Care~ Cyberbullying Prevention Program

Course Information:

RCMS Spring 2011

Presented every Tuesday as a portion of 6th Grade PE Wellness

Instructor:

Jennifer Carter, School Counselor

jcarter2@dentonisd.org

940-369-4706

Course Description:

This course has been designed to be shared with 6th grade students and will cover the topics of bullying, cyberbullying, internet safety, making friends in middle school, texting and social networking. Students will learn friendship skills, perspective taking, and conflict resolution skills and will have the opportunity to practice those skills both in class and as homework assignments. Students will also be made aware of the dangers that may exist when they spend time online or in text as well as become knowledgeable about ways to report and protect themselves online.

This curriculum has been developed based on the most current academic research which indicates that middle school age children experience more cyberbullying than at any other age (Limber, 2010). This research also suggests that educators take an active role in the

education of middle school students about the prevalence and consequences of cyberbullying and teach them skills that may help them with perspective taking, empathy, conflict resolution, and internet safety (Willard, 2006).

Program Effectiveness:

Effectiveness of this course will be determined by measuring student's self-reported behaviors before and after curriculum implementation. Self-concept will also be measured and will be a critical component of this curriculum. Students will also have weekly homework that focuses on self-reflection and meaning-making from the lessons. Students will be expected to visit with parents weekly about their experiences in the program.

Student Learning Objectives:

- Students will have a clear understanding of what behaviors are considered bullying and/or cyberbullying
- Students will be aware of a variety of ways to report behavior they have witnessed or been involved in
- Students will understand the consequences of bullying of any type
- Students will have the opportunity to model appropriate conflict management skills and relationship skills
- Students will engage in weekly self-reflections that help with perspective taking, self-esteem, and the role they may play as a bystander
- Students will have the opportunity to apply and share their new knowledge with others
- Students will understand ways they can protect themselves and others online

Course Calendar:

Week #1	Introduction to Program
Week #2	Making Friends in Middle School
Week #3	Internet Identity and Online Safety
Week #4	Bullying & Relational Aggression
Week #5	Cyberbullying: Consequences and Effects
Week #6	Cyberbullying: Self-Assessment & Making Reports
Week #7	Texting and Social Networking
Week #8	Spreading the Word

APPENDIX H

Tables

Table 1

Frequencies and Percentages of Categorical Demographic Variables

	n	%
Condition		
Control	85	50.6
Intervention	83	49.4
Gender		
Male	61	36.3
Female	107	63.7
Age		
11	106	63.1
12	61	36.3
13	1	.6
Ethnicity		
Caucasian	107	64.1
African American	9	5.4
Hispanic	22	13.2
American Indian	1	.6
Asian Pacific	5	3.0
Other	4	2.4
Mixed	19	11.4
Grades		
Mostly A's	135	80.4
Mostly B's	30	17.9
Mostly C's	3	1.8

Note. Frequencies not equaling 168 indicate missing data.

Table 2

Frequencies and Percentages of Categorical Demographic Variables: Technology

	n	%
Computer at Home		
Yes	154	91.7
No	14	8.3
Have Laptop		
Yes	105	62.5
No	63	37.5
Have Own Cell Phone		
Yes	135	80.4
No	33	19.6
Have Internet on Phone		
Yes	85	50.6
No	83	49.4
Location of Access		
Common Living Area of my Home	93	55.4
My Bedroom	36	21.4
School	6	3.6
Car	1	.6
Other	32	19.0
Time Spent Texting		
One Hour or Less	94	56.0
2-3 Hours per Day	25	14.9
4-5 Hours per Day	3	1.8
5 Hours or More	4	2.4
N/A	42	25.0

Table 2, continued

	n	%
Time Spent on Internet		
One Hour or Less	112	66.7
2-3 Hours per Day	34	20.2
4-5 Hours per Day	4	2.4
5 Hours or More	3	1.8
N/A	15	8.9
Parents Monitor Cell Phone Use		
Yes	85	64.9
No	46	35.1
Parents Monitor Internet Use		
Yes	101	66.4
No	51	33.6
Social Network		
Yes	98	58.3
No	70	41.7
Who Can See Profile[1]		
My Friends Only	65	70.7
My Friends and their Friends	7	7.6
Everyone	12	13.0
I Don't Know	8	8.7

Note. Frequencies not equaling 168 indicate missing data. [1] refers to participants who responded to this question about who can see their profile.

Table 3

Reliability Analyses of Pretest Victimization Scores, Cyberbullying Scores, Bystander Scores, and Self-Esteem Scores

	Cronbach's α
Pretest Victimization	.67
Pretest Cyberbullying	.44
Pretest Self-bystander	.61
Pretest Self-Esteem	.89

Table 4

Means and Standard Deviations of Pretest, Posttest, and Delayed Posttest Self-Esteem Scores

	Control					Intervention				
	n	Mean	*SD*	Min	Max	*n*	Mean	*SD*	Min	Max
Raw Scores										
Pre Self-Esteem	85	23.32	5.57	8.00	30.00	83	23.93	4.89	7.00	30.00
Post Self-Esteem	85	23.67	5.98	3.00	30.00	83	24.24	5.17	8.00	30.00
Delayed Self-Esteem	85	24.09	6.02	1.00	30.00	82	25.07	5.40	9.00	30.00
Standardized Scores										
Pre Self-Esteem	85	-.06	1.06	-2.98	1.22	83	.06	.93	-3.17	1.22
Post Self-Esteem	85	-.05	1.07	-3.75	1.08	83	.05	.93	-2.86	1.08
Delayed Self-Esteem	85	-.08	1.05	-4.11	.95	82	.09	.94	-2.72	.95

Table 5

Means and Standard Deviations of Pretest, Posttest, and Delayed Posttest Victimization Scores, Tell Parents Scores, and Tell Teachers Scores

	Control					Intervention				
	n	Mean	*SD*	Min	Max	*n*	Mean	*SD*	Min	Max
Total Victimization										
Raw Scores										
Pretest	85	1.13	2.22	.00	11.00	83	.93	2.49	.00	18.00
Posttest	85	1.28	3.24	.00	24.00	83	.66	1.44	.00	7.00
Delayed Posttest	85	.95	2.08	.00	12.00	83	.42	1.11	.00	6.00
Standardized Scores										
Pretest	85	.04	.94	-.44	4.23	83	-.04	1.06	-.44	7.20
Posttest	85	.12	1.28	-.39	9.10	83	-.12	.57	-.39	2.38
Delayed Posttest	85	.16	1.23	-.41	6.70	83	-.16	.65	-.41	3.15

Table 5, continued

	Control					Intervention				
	n	Mean	*SD*	Min	Max	*n*	Mean	*SD*	Min	Max
Tell Parents										
Raw Scores										
Pretest	85	4.28	1.10	1.00	5.00	83	4.46	.85	1.00	5.00
Posttest	85	4.31	1.05	1.00	5.00	83	4.30	1.03	1.00	5.00
Delayed Posttest	85	4.13	1.19	1.00	5.00	83	4.24	1.02	1.00	5.00
Standardized Scores										
Pretest	85	-.09	1.12	-3.43	.64	83	.09	.86	-3.43	.64
Posttest	85	.00	1.01	-3.19	.67	83	.00	1.00	-3.19	.67
Delayed Posttest	85	-.05	1.08	-2.87	.74	83	.05	.92	-2.87	.74
Tell Teachers										
Raw Scores										
Pretest	85	4.07	1.25	1.00	5.00	83	4.05	1.16	1.00	5.00
Posttest	85	4.08	1.21	1.00	5.00	83	4.10	1.09	1.00	5.00
Delayed Posttest	85	3.81	1.41	1.00	5.00	83	3.96	1.09	1.00	5.00
Standardized Scores										
Pretest	85	.01	1.04	-2.54	.78	83	-.01	.96	-2.54	.78
Posttest	85	-.01	1.05	-2.69	.79	83	.01	.95	-2.69	.79
Delayed Posttest	85	-.06	1.12	-2.29	.88	83	.06	.86	-2.29	.88

Table 6

Means and Standard Deviations of Pretest, Posttest, and Delayed Posttest Cyberbullying Scores

	Control					Intervention				
	n	Mean	*SD*	Min	Max	*n*	Mean	*SD*	Min	Max
Total Cyberbullying										
Raw Scores										
Pretest	85	.18	.64	.00	5.00	83	.23	.77	.00	6.00
Posttest	85	.29	1.17	.00	9.00	83	.11	.58	.00	5.00
Delayed Posttest	85	.20	.57	.00	3.00	83	.28	.77	.00	5.00
Standardized Scores										
Pretest	85	-.04	.91	-.29	6.80	83	.04	1.09	-.29	8.22
Posttest	85	.10	1.26	-.22	9.44	83	-.10	.63	-.22	5.15
Delayed Posttest	85	-.06	.85	-.35	4.08	83	.06	1.14	-.35	7.04

Table 7

Means and Standard Deviations of Pretest, Posttest, and Delayed Posttest Bystander Behavior Scores

	Control					Intervention				
	n	Mean	*SD*	Min	Max	*n*	Mean	*SD*	Min	Max
Self-Bystander Behavior										
Raw Scores										
Pretest	85	4.96	.84	2.00	7.00	83	5.04	.83	3.00	7.00
Posttest	85	4.88	1.44	1.00	7.00	83	4.94	1.47	1.00	7.00
Delayed Posttest	85	5.07	1.52	1.00	7.00	83	4.78	1.34	2.00	7.00
Standardized Scores										
Pretest	85	-.04	1.00	-3.60	2.40	83	.04	1.00	-2.40	2.40
Posttest	85	-.02	.99	-2.69	1.44	83	.02	1.01	-2.69	1.44
Delayed Posttest	85	.10	1.06	-2.73	1.44	83	-.10	.93	-2.04	1.44
Other-Bystander Behavior										
Raw Scores										
Pretest	85	1.45	1.22	.00	4.00	83	1.19	1.22	.00	4.00
Posttest	85	1.47	1.21	.00	4.00	83	1.22	1.32	.00	4.00
Delay Post Intervention	85	1.47	1.29	.00	4.00	83	1.13	1.15	.00	4.00
Standardized Scores										
Pretest	85	.10	1.00	-1.08	2.19	83	-.11	1.00	-1.08	2.19
Posttest	85	.10	.96	-1.06	2.10	83	-.10	1.04	-1.06	2.10
Delay Posttest	85	.14	1.05	-1.06	2.20	83	-.14	.93	-1.06	2.20

Table 8

Pearson Product Moment Correlation between Victimization Scores, Cyberbullying Scores, Bystander Scores, and Self-Esteem Scores at Pretest

	1	2	3	4	5	6
Total Cyberbullying	1.00					
Total Victimization	.27 **					
Victimization Tell Parents	-.13	-.03				
Victimization Tell Teachers	-.08	.00	.53 **			
Self-Bystander Behavior	-.14	-.13	.02	.10		
Other-Bystander Behavior	.10	.11	.12	.03	-.08	
Self-Esteem	-.21 **	-.39 **	.28 **	.11	.10	.09

Note. * $p < .05$, ** $p < .01$; 1 = Pretest Total Cyberbullying Score; 2 = Pretest Total Victimization Score; 3 = Pretest Victimization Tell Parents; 4 = Pretest Victimization Tell Teachers; 5 = Pretest Self-bystander Behavior Score; 6 = Pretest Other-Bystander Behavior Score.

Table 9

Multiple Linear Regression Predicting Pretest Total Victimization Scores from Standardized Pretest Total Cyberbulllying Scores and Pretest Self-Esteem Scores

	Unstandardized				
	B	*SE*	*Beta*	*t*	*p*
Pretest Total Cyberbullying	.201	.07	.201	2.80	.006
Pretest Self-Esteem	-.346	.07	-.346	-4.83	<.001

Note. Summary of Multiple Linear Regression: $F(2, 165) = 19.30$, $p < .001$, *adjusted* $R^2 = .180$.

Table 10

Multiple Linear Regression Predicting Pretest Total Cyberbullying Scores from Standardized Pretest Self-Esteem Scores and Pretest Total Victimization Scores

	Unstandardized				
	B	*SE*	*Beta*	*t*	*p*
Pretest Self-Esteem	-.123	.08	-.123	-1.52	.130
Pretest Total Victimization	.226	.08	.226	2.80	.006

Note. Summary of Multiple Linear Regression: $F(2, 165) = 7.94$, $p = .001$, *adjusted* $R^2 = .077$.

Table 11

Multiple Linear Regression Predicting Pretest Tell Teachers Victimization Scores from Standardized Dependent Variable Scores

	Unstandardized				
	B	*SE*	*Beta*	*t*	*p*
Pretest Victimization Tell Parents	.547	.07	.547	7.85	<.001
Pretest Self-Bystander Behavior	.088	.07	.088	1.30	.194
Pretest Other-Bystander Behavior	-.027	.07	-.027	-.39	.696
Pretest Self-Esteem	-.042	.08	-.042	-.55	.581
Pretest Total Victimization	.019	.08	.019	.26	.799
Pretest Total Cyberbullying	-.003	.07	-.003	-.05	.963

Note. Summary of Multiple Linear Regression: $F(6, 161) = 11.25, p < .001$, *adjusted* $R^2 = .269$.

Table 12

Multiple Linear Regression Predicting Pretest Tell Parents Victimization Scores from Standardized Dependent Variable Scores

	Unstandardized B	*SE*	*Beta*	*t*	*p*
Pretest Self-Bystander Behavior	-.046	.07	-.046	-.70	.483
Pretest Other-Bystander Behavior	.078	.07	.078	1.20	.230
Pretest Self-Esteem	.225	.07	.225	3.18	.002
Pretest Total Victimization	.060	.07	.060	.84	.405
Pretest Total Cyberbullying	-.078	.07	-.078	-1.16	.248
Pretest Victimization Tell Teachers	.506	.06	.506	7.85	<.001

Note. Summary of Multiple Linear Regression: $F(6, 161) = 14.35$, $p < .001$, *adjusted* $R^2 = .324$.

Table 13

Multiple Linear Regression Predicting Pretest Self-Bystander Behavior Scores from Standardized Dependent Variable Scores

	Unstandardized				
	B	*SE*	*Beta*	*t*	*p*
Pretest Other-Bystander Behavior	-.058	.08	-.058	-.73	.466
Pre Self-Esteem	.057	.09	.057	.64	.521
Pretest Total Victimization	-.080	.09	-.080	-.92	.359
Pretest Total Cyberbullying	-.103	.08	-.103	-1.26	.208
Pretest Victimization Tell Teachers	.119	.09	.119	1.30	.194
Pretest Victimization Tell Parents	-.067	.10	-.067	-.70	.483

Note. Summary of Multiple Linear Regression: $F(6, 161) = 1.27$, $p = .273$, *adjusted* $R^2 = .010$.

Table 14

Multiple Linear Regression Predicting Pretest Self-Esteem Scores from Standardized Pretest Total Cyberbullying and Total Victimization Scores

	Unstandardized				
	B	*SE*	*Beta*	*t*	*p*
Pretest Total Victimization	-.358	.07	-.358	-4.83	<.001
Pretest Total Cyberbullying	-.113	.07	-.113	-1.52	.130

Note. Summary of Multiple Linear Regression: $F(2, 165) = 16.05$, $p < .001$, *adjusted* $R^2 = .153$.

Table 15

Means and Standard Deviations of Posttest Total Victimization, Posttest Total Cyberbullying, Posttest Tell Parents, Posttest Tell Teachers, and Posttest Self-Esteem Scores by Group with Pretest Scores as Covariates

	n	Mean	*SD*	*F*	*p*
Posttest Total Victimization				2.65	.106
Control	85	.12	1.28		
Intervention	83	-.12	.57		
Posttest Total Cyberbullying				3.02	.084
Control	85	.10	1.26		
Intervention	83	-.10	.63		
Posttest Self-Esteem				.00	.986
Control	85	-.05	1.07		
Intervention	83	.05	.93		

Note. Summary of Multivariate Test: $\Lambda = .97$, $F(3, 161) = 1.44$, $p = .234$, $\eta^2 = .026$.

Table 16

Means and Standard Deviations of Delayed Posttest Total Victimization, Delayed Posttest Total Cyberbullying, Delayed Posttest Tell Parents, Delayed Posttest Tell Teachers, and Delayed Posttest Self-Esteem Scores by Group with Pretest Scores as Covariates

	n	Mean	*SD*	*F*	*p*
Delayed Posttest Total Cyberbullying				.68	.411
Control	85	-.06	.85		
Intervention	82	.06	1.14		
Delayed Posttest Total Victimization				4.67	.028
Control	85	.16	1.23		
Intervention	82	-.16	.66		
Delayed Posttest Self-Esteem				.67	.415
Control	85	-.08	1.05		
Intervention	82	.09	.94		

Note. Summary of Multivariate Test: $\Lambda = .95$, $F(3, 160) = 3.06$, $p = .030$, $\eta^2 = .054$.

Table 17

Means and Standard Deviations of Posttest Tell Parents and Posttest Tell Teachers by Group with Pretest Scores as Covariates

	n	Mean	*SD*	*F*	*p*
Posttest Tell Parent				.16	.190
Control	85	.00	1.01		
Intervention	83	.00	.99		
Posttest Tell Teacher				.01	.891
Control	85	-.01	1.05		
Intervention	83	.01	.95		

Note. Summary of Multivariate Test: $\Lambda = .99$, $F(2, 163) = .16$, $p = .853$, $\eta^2 = .002$.

Table 18

Means and Standard Deviations of Delayed Posttest Tell Parents and Delayed Posttest Tell Teachers by Group with Pretest Scores as Covariates

	n	Mean	*SD*	*F*	*p*
Delayed Posttest Tell Parent				.13	.722
Control	85	-.05	1.08		
Intervention	83	.05	.92		
Delayed Posttest Tell Teacher				.73	.384
Control	85	-.06	1.12		
Intervention	83	.06	.86		

Note. Summary of Multivariate Test: $\Lambda = .99$, $F(2, 163) = .37$, $p = .695$, $\eta^2 = .004$.

Table 19

Participants' Responses to "What are Some Things You Can Do that Could Reduce the Possibility that You Might Be Cyberbullied?" by Group

	Treatment			Control		
	Pretest	Post	Delayed	Pretest	Post	Delayed
Be Careful What You Post	22.6	38.1	28.6	30.9	27.4	25
Don't Know	10	1	1	5	3.5	1
Limit Friends	34.8	30	32	32	11.9	3.5
Don't be Mean	20.2	11.9	20.2	12	11	20.2
Ignore/Don't Get Involved	3	4	3	3	3	3
Report to an Adult	8.3	9.5	5.9	10.7	5.9	9.5
Limit Time Online	1.2	10	1.2	1.2	4	1.2
Block/Delete Bully	2.3	1.2	1.2	8.3	7.1	3.5
Privacy Settings	13	37	19	2.3	17	10
Respect Others	3.5	4.7	7.1	1	19.7	10
Approach Bully	1.2	2.3	3.5	0	0	7.1
Do Not Social Network	6	6	14	15	24	23.5

Note. Participants gave responses that could be categorized into more than one category or theme, therefore percentages may be greater than 100%.

Table 20

Means and Standard Deviations of Posttest Self-Bystander Behavior Scores by Group with Pretest Self-Bystander Behavior Scores as Covariate

	n	Mean	*SD*	*F*	*p*
Posttest Self-bystander Behavior Score				.01	.942
Control	85	-.02	.99		
Intervention	83	.02	1.01		

Note. Effect Controlling for Pretest Self-bystander Scores.

Table 21

Means and Standard Deviations of Delayed Posttest Self-Bystander Behavior Scores by Group with Pretest Self-Bystander Behavior Scores as Covariate

	n	Mean	*SD*	*F*	*p*
Delayed Posttest Self-Bystander Behavior Score				2.11	.149
Control	85	.10	1.06		
Intervention	83	-.10	.93		

Note. Effect Controlling for Pretest Self-Bystander Scores.

Table 22

Means and Standard Deviations of Posttest Other-Bystander Behavior Scores by Group with Pretest Other-Bystander Behavior Scores as Covariate

	n	Mean	*SD*	*F*	*p*
Posttest Other-Bystander Behavior Score				.64	.426
Control	85	.10	.96		
Intervention	83	-.10	1.04		

Note. Effect Controlling for Pretest Other-Bystander Scores.

Table 23

Means and Standard Deviations of Delayed Posttest Other-Bystander Behavior Scores by Group with Pretest Other-Bystander Behavior Scores as Covariate

	n	Mean	*SD*	*F*	*p*
Delayed Posttest Other Bystander Scores				1.72	.192
Control	85	.14	1.05		
Intervention	83	-.14	.93		

Note. Effect Controlling for Pretest Other-Bystander Scores.

Table 24

Participants' Responses to "What Do You Think or Feel if You See That Someone Has Posted Hurtful Material about Another Person Online?" by Group

	TREATMENT			CONTROL		
	Pretest	Post	Delayed	Pretest	Post	Delayed
Don't be Mean	17.9	20.2	16.7	17.9	20.2	13
Emotional Reaction	40.4	46.4	33.3	50	23.8	22.6
Why	5.9	1.2	4.8	5.9	4.8	2.4
Have Not Witnessed	6	1.2	0	3.6	2.4	3.4
Want to Help/Support Victim	19	20.2	17.9	10.7	13	19
Want Consequences or Wants it to Stop	9.5	4.8	13	14.3	6	10.7
Want to Report	20.2	13	14.3	8.3	10.7	8.3
Bully has Low Self-Esteem	5.9	5.9	7.1	3.6	2.4	5.9
Wants to Intervene or Take Action	5.9	10.7	10.5	13	10.7	5.9

Note. Participants gave responses that could be categorized into more than one category or theme, therefore percentages may be greater than 100%.

Table 25

Participants' Responses to "Why Do You Think That Many Bystanders Do Not Speak Up or Take Action When They Witness or Are Aware of Students Being Cyberbullied?" by Group

	TREATMENT			CONTROL		
	Pretest	Post	Delayed	Pretest	Post	Delayed
Fear Retaliation	51.2	57.1	58.3	64.3	65.5	51.2
Don't Want to Get Involved	7.1	13	14.3	1.2	2.4	14.3
Don't Know What to do	4.8	4.8	4.8	7.1	5.9	1.2
Reputation	7.1	8.3	4.8	4.8	5.9	3.6
Loss of Friends	8.3	3.6	3.6	1.2	2.4	2.4
Afraid of Consequences	8.3	10.7	5.9	5.9	3.6	10.7
Don't Care	5.9	3.6	2.4	4.8	2.4	2.4
Afraid to Approach Bully	9.5	14.3	5.9	8.3	13	17.9

Note. Participants gave responses that could be categorized into more than one category or theme, therefore percentages may be greater than 100%.

Table 26

Means and Standard Deviations of Posttest Self-Esteem Scores by Group with Pretest Self-Esteem Scores as Covariate

	n	Mean	*SD*	*F*	*p*
Condition				.01	.934
Control	85	-.05	1.07		
Intervention	83	.05	.93		

Note. Effect Controlling for Pretest Self-Esteem Scores.

Table 27

Means and Standard Deviations of Delayed Posttest Self-Esteem Scores by Group with Pretest Self-Esteem Scores as Covariate

	n	Mean	*SD*	*F*	*p*
Condition				.55	.461
Control	85	-.08	1.05		
Intervention	82	.09	.94		

Note. Effect Controlling for Pretest Self-Esteem Scores.