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Michelle Pearl Black

University of Tennessee - Knoxville, mkravitz@utk.edu

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To the Graduate Council:

I am submitting herewith a dissertation written by Michelle Pearl Black entitled "Cyberbullying, Bullying, and Victimization among Adolescents: Rates of Occurrence, Internet Use and Relationship to Parenting Styles." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in School Psychology.

Sherry K. Bain, Major Professor

We have read this dissertation and recommend its acceptance:

Chris Skinner, Jeannine Studer, John Lounsbury

Accepted for the Council:

Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

**Cyberbullying, Bullying, and Victimization among Adolescents:
Rates of Occurrence, Internet Use and
Relationship to Parenting Styles**

A Dissertation Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Michelle Pearl Black
August 2014

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Dedication

To my husband, Adam, my soul mate and my best friend.

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Finally, I would like to thank my husband, Adam Black, for being a fantastic loving support throughout this entire journey.

Abstract

Cyberbullying has evolved from the increasing use of technology, specifically electronic communication and social networking. Cyberbullying is defined as a means of bullying in which peers use electronic devices "to taunt, insult, threaten, harass, and/or intimidate a peer" (Raskauskas & Stoltz, 2007, p. 565). This could occur through a number of different electronic formats or devices such as email, social networking sites, cell phones, etc. In this study, participants included a total of 77 students attending a Southeastern Tennessee City Middle and High School. This included 23 seventh-grade students, 31 eighth-grade students and 23 ninth grade students. Participants were administered an online questionnaire that included a Demographic Information Sheet (Appendix E), the *Bullying/Cyberbullying Scale* (Smith et al., 2008), and *The Inventory of Parental Influence* (Campbell & Verna, 2007).

The prevalence of bullying, cyberbullying and victimization in this sample was high. Over half of the students (53.2%, $n = 41$) had taken part in bullying in their lifetime. About a third of the students (31.2%, $n = 24$) reported taking part in cyberbullying. Overall, 49.4% ($n = 38$) of the students had been bullied in their lifetime, while 28.6% were victims of cyberbullying ($n = 22$). Relative to males, significantly more females were both perpetrators of cyberbullying and bullying, and significantly more females were both victims of cyberbullying and bullying. I ran four discriminant function analyses to determine whether parental influences (help, support, and pressure), would predict bullying, cyberbullying and victimization by bullying and cyberbullying. All results were non-significant.

These findings enhance our understanding of the rates of occurrence of bullying, cyberbullying and victimization among adolescents. Internet use among adolescents should be monitored for potential trends. Implications for future research and school-based interventions are discussed.

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Chapter 1

Introduction and Literature Review

Child suicide has a strong negative connotation. No one thinks about suicide in terms of children, although it is steadily becoming a serious problem in today's youth. According to the Center for Disease Control, suicide was the fourth leading cause of death in 2007 for children under the age of 18 (Center for Disease Control, 2010). Suicide is a higher cause of death for children than heart disease, respiratory disease, and pneumonia combined. Suicide even climbed to the third leading cause of death in school aged boys, ages 6 to 18, in 2007 (Center for Disease Control, 2010). This is a staggering underpublicized statistic. An internet search on cyberbullying revealed numerous news stories such as the widely publicized Megan Meier case, where prosecutors charged Lori Drew, a 49 year old mother, of cyberbullying that led the 13 year old to suicide in 2006 (Steinhauer, 2008). Although Drew was acquitted of the charges in 2008, this was an eye-opening landmark court case that raised awareness in the severity of cyberbullying. There have been other highly publicized reports of cyberbullying leading to child suicide such as the Massachusetts teens who allegedly bullied and cyberbullied 15 year old Phoebe Prince leading to her suicide in 2010 (Schworm, 2011).

Cyberbullying has evolved from the increasing use of technology, specifically electronic communication and social networking. Cyberbullying is defined as a means of bullying in which peers use electronic devices "to taunt, insult, threaten, harass, and/or intimidate a peer" (Raskauskas & Stoltz, 2007, p. 565). This could occur through a number of different electronic formats or devices such as email, social networking sites,

cell phones, etc. Unlike traditional bullying, cyberbullies have the ability to conceal their identity if they desire. Bullying involves repeated aggressive acts (verbal or nonverbal) with the intention or motivation to harm another person (Harris, 2009; Kowalski, Limber, & Agatston, 2008). For the purpose of this study, the term “bullying” refers to traditional face-to-face bullying, while the term cyberbullying refers to bullying through technology, such as a cell phone, social networking site, or email. See Appendix A for definitions.

Kowalski and Limber (2007) found that about half of cybervictims did not know the identity of the cyberbully. Currently, the statistics are wide-ranging as to how often or how many children and adolescents are being bullied by a cyberbully. The Cyberbullying Research Center has most recently reported that about 20% of a randomly selected sample of 4,400 eleven to eighteen year olds in the United States report having been cyberbullies or cybervictims at least once in their lifetime (Hinduja & Patchin, 2010). Numerous researchers have found that 20-40% of their middle school samples in the United States report being victims or perpetrators of cyberbullying in the last year or less (Kowalski & Limber, 2007; Pergolizzi et al., 2009; Pornari & Wood, 2010; Tokunaga, 2010). Raskauskas and Stoltz (2007) developed the *Internet Experiences Questionnaire* which asked adolescents ages 13 to 18 about their experiences throughout the past school year. They reported higher rates, with almost 49% reporting being victims of electronic bullying and 21% reporting being perpetrators. Due to the sparse amount of research in this area, I chose to focus my investigation of cyberbullying at the middle school level to obtain a sample for verification of the few existing studies and to expand knowledge about related variables and frequency and location of internet use. In

the following literature review, I will summarize the existent literature in the area of cyberbullying, traditional bullying, and parenting influences beginning with internet use in adolescents.

Internet Use in Adolescents

Despite the alarming percentages of youth reported to cyberbully, there has been sparse research examining internet use among children and adolescents. Devine and Lloyd (2012) investigated 3,657 children, aged 10 to 11, in Northern Ireland, who responded to a 2009 survey, the *Kids' Life and Times Survey*. Almost all (98%) of students reported that their family had at least one computer and 94% reported that the computer had an internet connection. In addition, most students used the internet at school (97%) and at home (91%). When responding to questions about the purpose for internet use, 86% of students reported that they used the internet for schoolwork and for fun. Girls were significantly more likely to use the internet for schoolwork and fun, while boys were significantly more likely to use the internet for just fun (Devine & Lloyd, 2012). Internet use has also been investigated in Australia. Sakellariou, Carroll and Houghton (2012) investigated internet use in 1,530 Australian boys aged 9-18 years old. Most students reported having access to the internet (about 87%) and email (77.3%). A large majority of students owned their own cell phone (89.9%).

Devine and Lloyd (2012), whose study is described above, also investigated the use of social networking sites and psychological well-being among their participants, by comparing means using t-tests. Students who said they used social networking sites were significantly more likely to have lower scores on the psychological well-being scale,

although the authors explain that these results are in need of future research since the effect size was small. For each gender separately, the effect size remains small, yet girls who said they use social networking sites more were significantly more likely to have lower scores on the psychological well-being scale. This did not hold true for boys.

In a large study of 2,186 6th to 11th grade students in Canada, Mishna, Khoury-Kassabri, Gadalla, and Daciuk (2012), investigated internet use within the previous three months as a risk factor for cyberbullies, cybervictims and cyberbully/victims. Most students reported using computers at least 2 hours a day (65.5%). Mishna and colleagues (2012) also report that about 67% of students explained that they have at least two computers in their home. About 45% reported using a computer in their bedroom, while 48.5% said they use it in a more public space in their house. Also, 32.1% of students said they give their password to friends at least some of the time. Almost 24% of students reported being cybervictims, 8% reported being cyberbullies, and 25.7% reported being both cyberbullies and victims. Students in the combined group of cyberbullies, cybervictims and cyberbully/victims, were more likely than those with no involvement in cyberbullying and victimization to use the computer for several hours a day, to give their password to friends and to act violently at school toward peers.

In another recent study of 1,597 students aged 13 to 17 in Singapore, participants were asked about their bullying and cyberbullying experiences (Kwan & Skoric, 2013). Specifically, 59% of Facebook users reported having experienced bullying and 56% of Facebook users reported engaging in at least one form of Facebook bullying in the past year. The most common form of Facebook bullying was receiving nasty messages

(28%). The level of the engagement and intensity on Facebook was positively related to Facebook victimization (Kwan & Skoric, 2013). Risky Facebook use, defined as sharing Facebook passwords, accepting friend requests from strangers, and posting inappropriate photos and information, was positively related to both Facebook bullying and Facebook victimization.

In California, 251 adolescents (aged 13 to 19 years old) were interviewed about their internet use (Reich & Subrahmanyam, 2012). A large majority of students, 88%, reported having at least one profile on a social networking site and 44% check their profile more than once a day. Of the 12% that did not have a profile, almost half (43%) of these students reported still frequenting the sites frequently. A large majority of students, 90%, reported having an email address, while only 65% reported using instant messaging (Reich & Subrahmanyam, 2012).

When 2,610 Jerusalem junior high school students (aged 12 to 14 years old) were asked about their internet experiences, a majority of students reported using a computer either half an hour to an hour a day (32.9%) or more than two hours a day (29.3%) (Gofin & Avitzour, 2012). Most, 90.7%, of the students reported using the internet. When asked about their bullying and cyberbullying experiences during this school term, 28% of students said that they had participated in bullying and 8.9% said that they had participated cyberbullying. However, 44.9% of the students reported that they had been victims of bullying and 14.4% of students reported that they had been victims of cyberbullying (Gofin & Avitzour, 2012).

Across studies, most students have access to a computer at home and access the internet (Devine & Lloyd, 2012; Gofin & Avitzour, 2012; Misha et al., 2012; Reich & Subrahmanyam, 2012; Sakellariou, Carroll & Houghton, 2012). Most students use the internet for fun (Devine & Lloyd, 2012) and a large majority reported having at least one profile on a social networking site (Reich & Subrahmanyam, 2012). Risky online behavior is related to cyberbullying and victimization by cyberbullying (Kwan & Skoric, 2013; Misha et al., 2012).

Rates of Peer Harassment in Middle and High School

Many researchers have concentrated their bullying and cyberbullying studies specifically on middle and high school students. Pergolizzi and her colleagues (2009) have investigated bullying and cyberbullying behaviors among 587 7th and 8th graders across several states. They used items from the *Child Abuse Prevention Services Survey*, a self-report measure developed to investigate a New York bully intervention program. These researchers found that 15% of 7th- and 8th-grade students admitted being cyberbullies, while 45% of students admitted to traditional (non-cyber) bullying in their lifetime (Pergolizzi et al., 2009). When other researchers asked 1501 students across the United States, ages 10 to 17 year old, to reflect upon the past year, 15% were identified as internet harassers (Ybarra & Mitchell, 2004) representing a rate similar to Pergolizzi and her colleagues' (2009) findings.

More recently, Hinduja and Patchin (2013) investigated 4,400 students in grades 6 through 12 from the southern United States in reference to their cyberbullying experiences. In the past 30 days, 4.9% of students admitted to cyberbullying others “a

few times or more” (Hinduja & Patchin, 2013). Similarly, in a large sample of 4,531 US students from eight different regions in grades 6 through 12, 10.9% of students admitted to being perpetrators of cyberbullying, and 17.3% of students reported being victims of cyberbullying at least once in the last two months (Kowalski, Morgan, & Limber, 2012). Following the trend found by Pergolizzi and her colleagues (2009), a much higher percentage of students admitted to bullying behaviors (31.8%) and being a victim of bullying (37.8%) than cyberbullying and cybervictimization (Kowalski et al., 2012).

In a large sample of 5,862 8th to 12th year students in Italy, Spain and England, researchers investigated direct bullying, indirect bullying, mobile phone cyberbullying and internet cyberbullying experiences within the last 2 months (Ortega et al., 2012). Victims of direct bullying ranged from 18.7% in England to 10.7% in Spain. Indirect bullying victimization was the highest in Italy (23%) and lowest in Spain (15.8%). Almost 10% percent of Italian students said that they had been cyberbullied with a mobile phone, while only about 4% of those students reported the same in Spain or England. Internet cyberbullying seemed to be similar across all countries: 6.6% of the students in England, 7.3% of the students in Italy, and 7.5% of the students in Spain, reported being cyberbullied via the internet (Ortega et al., 2012).

In a study comparing verbal, physical and internet bullying across 5th, 8th and 11th grade students in the US, conducted by Williams and Guerra (2007), the highest prevalence (12.9%) of cyberbullying occurred in the 8th grade. Researchers in other countries have submitted similar reports. For instance, in Taiwan, 8th grade was also the grade where bullying was most prevalent (Wei, Williams, Chan & Chang, 2009).

Middle school grades, typically consisting of 6th, 7th, and 8th grades, seem to be the most fertile ground for traditional bullying. Percentages of victims of peer harassment are relatively high in middle schools. Over 45% of middle school students report witnessing and experiencing peer harassment, including being picked on, insulted, bullied, threatened, hit or shoved, in two separate studies performed by Nishina and Juvonen (2005) in the Los Angeles area. These researchers had sixth grade students describe their daily experiences with harassment over two weeks by using the same self-report measures on four separate days (Nishina & Juvonen, 2005). In this first study, over half (56%) of the 95 sixth grade students reported experiencing peer harassment at least once, in the two week period (Nishina & Juvonen, 2005). This is an overwhelming response. Also, being a witness to peer harassment is common, with almost half (42%) of students reporting that they saw others being harassed by peers at least one day throughout the two week period (Nishina & Juvonen, 2005).

Nishina and Juvonen (2005), decided to do a follow up study to see if these results could be replicated with a slight modification. They conducted a second study which consisted of 97 sixth grade students from a different school, where they collected data an additional day, making five days of data collection, throughout the two week period (Nishina & Juvonen, 2005). These findings were similar to the previous study, with 47% of sixth grade students reporting that they had experienced peer harassment personally at least once, and 66% reporting witnessing peer harassment during a day in the two-week period (Nishina & Juvonen, 2005). Their findings are consistent with data from another

source (Williams & Guerra, 2007) indicating that middle school students (6th, 7th, and 8th grades) report an unexpectedly high rate of bullying and harassment.

Bosworth, Espelage, and Simon (1999) developed their own self-report scale on bullying consisting of questions regarding name calling, teasing, and hitting others. These researchers asked 558 sixth, seventh, and eighth graders in a large middle school in the Midwest to recall these actions in the past month and found that an alarming 81% of middle school students reported engaging in bullying behavior during that period (Bosworth, Espelage, & Simon, 1999). These statistics have been recently replicated in Kwan and Skoric's (2013) study in Singapore, described previously. In their large sample, 84% of students reported a bullying experience within the last year. Seventy-one percent of students reported engaging in bullying in the last year (Kwan & Skoric, 2013).

In a nationally representative survey of 10 to 17 year olds, being a target of traditional bullying increased the likelihood of internet harassment towards others (Ybarra & Mitchell, 2004). In a recent study in Singapore by Kwan and Skoric (2013), being involved in school bullying was positively related to both Facebook bullying and Facebook victimization. In another recent study mentioned previously, those students who admitted to cyberbullying behaviors were also more likely to perpetrate bullying (60.1%) (Kowolaski, Morgan, & Limber, 2012). Even though traditional or face-to-face bullying and electronic or cyberbullying occur in hypothetically distinct domains, they seem to be intertwined.

Other researchers have also found a large overlap between traditional and electronic bullies and victims (Raskauskas & Stoltz, 2007). Raskauskas and Stoltz

(2007) used their own self-report measure, the *Internet Experiences Questionnaire*, which asked students how often they experienced electronic bullying (text, websites, and pictures) and traditional bullying during the past school year. When administered to 84 students 13-18 years old in the US, they found that 85% of cybervictims were also traditional bully victims (Raskauskas & Stoltz, 2007). These researchers also reported that 94% of cyberbully perpetrators also were identified as traditional bully perpetrators (Raskauskas & Stoltz, 2007).

Students, themselves, are concerned about the rates of bullying and cyberbullying in the schools. Pergolizzi and her colleagues (2009) studied 587 7th and 8th grade students across the United States who responded to items from the *Child Abuse Prevention Services Middle School Bullying Survey*, consisting of 14 self-report items about experiences with bullying and cyberbullying. The prevalence of bullying is seen as a problem by 80% of middle school students in 7th and 8th grade across the U.S. (Pergolizzi et al., 2009).

Bullying and cyberbullying are worldwide problems applying to multiple settings and populations. Through self-report measures, cyberbullies range from 12-15% of the student population across studies (Pergolizzi et al., 2009; Wei, Williams, Chan & Chang, 2009; Ybarra & Mitchell, 2004). Witnessing peer harassment also seems to be a common practice in middle school, with almost 1/3 of students having witnessed harassment of a peer in the last two weeks (Nishina & Juvonen, 2005). Bullying rates vary widely across studies but seem to be consistently higher than cyberbullying, ranging from 31.8% to 81% of students reporting engaging in bullying behaviors (Bosworth, Espelage, & Simon,

1999; Kowalski, et al., 2012). The difference in time frames for reporting of bullying possibly accounts for the wide variation in rates. For example, Bosworth and colleagues (1999) had students reflect upon the last month; Kowalski and colleagues (2012) had students reflect upon the last two months. Nevertheless, the correlation between bullying and cyberbullying is strong (Raskauskas & Stoltz, 2007; Ybarra & Mitchell, 2004). Interestingly, Nakamoto and Schwartz (2010) have suggested that self-report measures on victimization underestimate the actual prevalence, so the problem may very well be larger than reported.

Correlates of Bullying, Cyberbullying, and Victimization

Some researchers have documented the effects of cybervictimization, which has been associated with academic and emotional problems, lowered self-esteem, lower psychological well-being, and lower perceptions of school safety (Devine & Lloyd, 2012; Esbensen & Carson, 2009; Patchin & Hinduja, 2010; Raskauskas & Stoltz, 2007; Tokunaga, 2010). Furthermore, depressive symptoms following bullying have been shown to persist into early adulthood, even when victimization has stopped (Perren & Alsaker, 2009).

Patchin and Hinduja (2010) specifically examined self-esteem as an outcome measure of bullying. These researchers submitted a self-report measure to a sample 1,963 middle school students (6th, 7th, and 8th grades) attending 30 schools in a large school district. Respondents had been randomly assigned to peer conflict classes in their respective schools. The researchers found that students in middle school had significantly lower self-esteem if they were cybervictims or cyberbullies (Patchin &

Hinduja, 2010). Patchin and Hinduja (2010) theorized that this lower self-esteem could be a predictor of lower academic performance, although they did not collect data to support their hypothesis.

In their recent meta-analysis, Nakamoto and Schwartz (2010) found that while peer victimization is related to academic difficulties, results across studies were inconsistent. Academic difficulty might be both a contributing factor for bullying and a consequence (Carlson & Cornell, 2008; Juvonen, Wang & Espinoza, 2011). Having academic difficulty could also be a factor predicting victimization as well. Juvonen, Wang and Espinoza (2001) followed 2,300 students through the three years of middle school (6th, 7th and 8th grades) in Los Angeles and found that there was a significant association between victimization and decreased academic performance over time. Similarly, Moore and colleagues (2012) found a significant correlation between self-reported grades in school and electronic victimization, in their study of 855 7th and 8th grade students in the Southeastern US. Those who reported higher grades reported less electronic victimization.

Also, anxiety was found to be higher when children experienced, witnessed, or both experienced and witnessed any kind of peer harassment during the 2 week period in the study described earlier (Nishina & Juvonen, 2005). In this same study, being a victim of peer harassment is correlated with increased levels of humiliation and anger (Nishina & Juvonen, 2005).

In a more recent study by Sakellariou and colleagues (2012), mentioned previously, 28% of students who received threatening or hurtful emails indicated being

“very upset” by it, while 52% of students indicated being “only a little upset” by it. Similar percentages, 29% and 52% respectively, indicated being “very upset” or “only a little upset” by receiving threatening or hurtful SMS (text) messages. About 18% of students who received threatening or hurtful comments through internet chat reported being “very upset” and 62% reported being “only a little upset” (Sakellariou, Carroll, & Houghton, 2012).

Anger is another attribute that could be both a predictor and a result of bullying (Bosworth, Espelage & Simon, 1999). Previously mentioned researchers, Bosworth, Espelage and Simon (1999) collected self-report information from 558 students attending a large middle school in the Midwestern United States and found that anger is a significant predictor of bullying, while impulsivity, depression and a sense of belonging were also correlated with bullying.

Victims of bullying and/or cyberbullying often suffer from lasting negative effects, but there is increasing evidence that bullies and cyberbullies also experience problems with self-esteem and academic performance (Esbensen & Carson, 2009; Patchin & Hinduja, 2010; Raskauskas & Stoltz, 2007; Tokunaga, 2010). Victims of cyberbullying could also experience problems with anger and depression (Nishina & Juvonen, 2005; Perren & Alsaker, 2009). In the following section, I will discuss gender differences in bullying behaviors, followed by theoretical models that purport to explain bullying behaviors, leading into a potential link between bullying and parenting styles.

Gender Differences in Bullying and Cyberbullying

As in any childhood behaviors of concern it is important to distinguish if there are gender differences in the variable of interest. This is key information since males and females develop and react to situations differently. We also need this information in order to form effective interventions, while taking into consideration the differences between genders. Currently, across cultures there are more male bullies than female bullies (Baldry & Farrington, 2000; Hussein, 2010; Wei et al., 2009). Since boys tend to do more physical bullying, they may also be more likely to be caught in the act, versus girls who do more relational bullying. (Kert, Coddington, Tyron & Shiyko, 2010; Wei et al., 2009). Girls are more likely to spread rumors and do other more non-physical types of bullying, but does this overlap into cyberbullying?

In a recent study by Pornari and Wood (2010) conducted in the United Kingdom, a questionnaire was given to 339 students in grades 7 through 9, which revealed that girls participate in cyberbullying at higher rates than boys. This was also found to be true across the United States, based on a large self-report study of 3,767 students in 6th, 7th and 8th grades as well (Kowalski & Limber, 2007).

In a more recent large-scale US study, across eight different regions, including 4,531 students in grades 6 to 12, males were more likely to portray bullying behaviors, while females were more likely to be victims of cyberbullying (Kowalski, Morgan & Limber, 2012). In another recent study in the Southeastern US, 855 students in grades 7 and 8 were asked about their electronic bullying experiences within the last few months (Moore, Huebner, & Hills, 2012). Females were more likely to be electronic bullies, but

less likely to be victims of electronic bullying than males. Contrastingly, in a large sample of 2,610 junior high school students aged 12 to 14 in Jerusalem, discussed previously, boys were more likely than girls to be both traditional bullies and cyberbullies (Gofin & Avitzour, 2012). Boys were also more likely than girls to be victims of bullying and cyberbullying.

In a sample of 242 Jewish Israeli adolescents, aged 13 to 16, significantly more girls were victims of cyberbullying than boys (Olenik-Shemesh, Heiman, & Eden, 2012). Olenik-Shemesh and colleagues (2012) also explain that significantly more girls reported that they knew someone who was a victim of cyberbullying than boys. Most of the victimization by cyberbullying included verbal abuse and offensive messenger and text messages.

Although some researchers have introduced the idea that cyberbullying might be more of a female dominated action, there is discrepant research on this specific interaction. While most researchers seem to agree that there are more male bullies than female bullies (Baldry & Farrington, 2000; Gofin & Avitzour, 2012; Hussein, 2010; Kowalski, Morgan & Limber, 2012; Wei et al., 2009), the relationship between cyberbullying is not as clear. Some researchers found that there are more female cyberbullies than male cyberbullies (Kowalski & Limber, 2007; Moore, Huebner, & Hills, 2012; Pornari & Wood, 2010); others found different results (Gofin & Avitzour, 2012). Researchers also disagree on victimization by cyberbullying. Some researchers indicate that there are more female victims by cyberbullying than males (Kowalski,

Morgan & Limber, 2012; Olenik-Shemesh, Heiman, & Eden, 2012) while others found different results (Gofin & Avitzour, 2012; Moore, Huebner, & Hills, 2012).

Theoretical Models for Bullying

There are several potential theoretical explanations for the cultural differences in the prevalence of bullying and victimization behaviors found within a school or cultural setting: Social Cognitive Theory, Social Dominance Theory, and Ecological Systems Theory. Bandura's Social Cognitive Theory suggests that people learn primarily through observation (see Nabi & Clark, 2008). As children grow, they tend to model their parents' behaviors whether these behaviors are positive or negative. In a cyberbullying example, this theory accounts for victims or observers of bullying (or cyberbullying) eventually becoming bullies themselves (Tokunaga, 2010). These victims have learned the cyberbullying behavior through their personal observation of parents and/or peers and then performed similar behaviors.

One of the social cognitive explanations for traditional bullying relates to leading through example. In countries or societies with dominant authoritarian traditions, a fairly common example of modeled behavior might be corporal punishment and related behaviors in the schools. If children are exposed to or observe corporal punishment by a figure of authority they could attempt to mimic this behavior by bullying. This also has a role in downplaying the severity of bullying. For instance, in a study by Thornberg (2010), 56 students from Sweden, ages 10-13, 21% explained their bullying acts as being just a game.

Social Dominance Theory proposes that every culture is based on group-based hierarchies (Sidanius, Pratto, van Laar, & Levin, 2004). The most respected person would be at the top (i.e., King, President, etc.). Based on this theory, each human being is continually trying to gain status by dominating others. This theory suggests that bullying is simply an aggressive strategy used by children and adolescents to gain and maintain social status and dominance (Thornberg, 2010). Both cyberbullying (anonymous or not) and traditional (non-cyber-) bullying can be explained with this theory. Bullies who observe these behaviors in people with authority, such as school officials, might want to gain social status by becoming synonymous with an authority figure.

Ecological Systems Theory explains that an individual is included in five intertwined system levels which all have their own influences (Bronfenbrenner, 1979). The microsystem consists of immediate family, school, and other relationships that are the closest to the individual. The next system from the child would be the mesosystem, including parent/teacher interactions. The next system is the exosystem which includes community based resources, and other parts of the large social system that directly influences the child. The macrosystem consists of cultural norms and values. The chronosystem includes environmental changes. This relays the idea that there are multiple factors interlocked that could influence bullying, besides the immediate environment or microsystem. For bullying and cyberbullying, one of the most influential systems from Ecological Systems Theory would be the microsystem. Family, school and

other close relationships seem to be of interest when comparing bullying and cyberbullying rates across students.

Parenting Styles and Influences

Parenting styles most likely provide examples of the effects of social cognitive theory (modeling), social dominance theory (social hierarchies) and especially ecological systems theory (immediate relationships). Baumrind (1966) compares and contrasts the three main parenting types delineated in her research: authoritative, authoritarian, and permissive. Authoritative parenting includes imposing strict rules, but in an environment that is open to discussion (Baumrind, 1966). In contrast authoritarian parenting includes imposing strict rules in an obedience-valued environment; for instance, authoritarian parents commonly use corporal punishment in order to modify their child's behavior. Permissive parenting is generally the conceptual opposite of authoritarian parenting. In permissive parenting, there are few demands in a nonpunitive environment.

Authoritarian parenting can be found across socio-economic groups and across cultures. Parental pressure is an important aspect of this parenting style. For instance, in a discussion of current parenting customs in South Korea, Kim, Boyce, Koh, and Leventhal (2009) explain that higher family socio-economic status (SES) has given parents the ability to enroll their children in many extracurricular activities, combining these activities with a traditionally strong emphasis on high academic achievement. Kim and colleagues (2009) speculate that placing this much emphasis on children's accomplishments and academic achievement may place students at risk for troubled peer interactions. A similar emphasis on academic competition is found in Saudi Arabia,

which purportedly creates frustrated students who act out their frustration in terms of bullying behaviors (Hussein, 2010). Large amounts of parental pressure, whether it be on schoolwork or extracurricular activities, might prove to be a breeding ground for bullies and/or cyberbullies.

Baldry and Farrington (2000) examined 238 middle school students, ages 11 to 14 in Rome, using a self-report questionnaire regarding parental styles and frequency of bullying. These researchers found that bullies tend to have authoritarian parents, who offer little parental support (Baldry & Farrington, 2000). Wang and colleagues (2009) have reported findings indicating that parental support plays a positive role in reducing bullying and cyberbullying, based upon a US sample of more than 7,000 students in 6th through 10th grades. They indicated that higher levels of parental support were associated with lower levels of physical, verbal, relational and cyberbullying.

Finally, in a recent meta-analysis of 48 articles ranging across countries from Europe, Asia, and North America, Kawabata and colleagues (2011) reported that children of mothers who exhibited harsh or uninvolved parenting styles (which would include those with low parental support) displayed higher levels of children's relational aggression. Conversely, positive parenting from mothers (similar to authoritative parenting) correlated negatively with relational aggression in children. Paternal parenting patterns resulted in a similar trend, with harsh parenting and psychologically controlling parenting styles correlating with higher amounts of relational aggression in children (Kawabata, Alink, Tseng, van Ijzendoorn, & Crick, 2011). Thus, those adolescents with lower levels of parental support might be more likely to be bullies themselves.

Researchers have occasionally studied the relationship between bullying and family involvement or family support, rather than specific parenting styles. For example, Bowers, Smith and Binney (1994) had 193 students, ages 8 to 11, peer nominate each other into groups of bully, bully/victim, and victim. These researchers used a variety of questionnaires: *The Family Relations Test* (FRT) (Bene & Anthony, 1957), which measured positive and negative emotions for members; *The Parenting Style Questionnaire* (PSQ) (Bowers, Smith and Binney, 1994), which included subscales of warmth, over-protection, accurate monitoring, punitiveness and neglect; *The Family Systems Test* (FAST) (Gehring & Wyler, 1986), which measured the child's view of the family's cohesion and power; and *The Separation Anxiety Test* (SAT) (Klagsburg & Bowlby, 1976), which investigated attachment to parents. These researchers found that both bullies and bully/victims were more likely to rank "other" family member, other than their mother or father, as being the most involved in their lives, which may indicate low levels of parental support and parental help (Bowers, Smith & Binney, 1994).

Bullies also demonstrate distress regarding the lack of cohesion and power distribution in their families (Bowers, Smith & Binney, 1994), which relates to Social Dominance Theory. Contrastingly, bullying seems to be lower in schools where students predominantly report more democratic families (Chaux, Molano, & Podlesky, 2009).

The relationship between parenting styles and cyberbullying may not be as clear. Rosen, Cheever, and Carrier (2008) examined 341 teen-parent pairs using self-report questions about a popular social networking site, MySpace, and *The Parenting Style Questionnaire* (PSQ) (Smith et al., 1993), which described parental warmth/involvement

and strictness/supervision. These researchers found that both Authoritative and Authoritarian parents were more likely to set limits on their teen's internet use, and their teens were less likely to divulge personal information on the internet (Rosen et al., 2008). However, Authoritative parents had the greatest knowledge of their teen's MySpace profile, hypothesizing that they would be more aware of their children's online behavior (Rosen et al., 2008).

More research in this area is warranted to elaborate upon the influence of different aspects of parental influence as it relates to cyberbullying. Kim and colleagues (2009) speculate that parents placing undue pressure on their children puts them at risk for troubled peer interactions. Hussein (2010) found an emphasis on academic competition in Saudi Arabia, which purportedly creates frustrated students who act out their frustration in terms of bullying behaviors. Parental pressure seems to be an important aspect of parental influence. Baldry and Farrington (2000) found that bullies tend to have authoritarian parents, who offer little parental support. Wang and colleagues (2009) reported that higher levels of parental support were associated with lower levels of physical, verbal, relational and cyberbullying. Support seems to be an influential aspect to parenting. The scale used in the current study, *The Inventory of Parental Influence, IPI*, is designed to evaluate children's perceptions of the influence of their parents. This scale has been used in evaluation in over nine countries (e.g., Campbell & Verna, 2007). The three sub-scales of the IPI that will be the focus of this study are help, pressure, and support, which purportedly correspond to Authoritarian and Authoritative parenting

styles. Authoritarian parents would be rated low on support and help, while high on pressure. Authoritative parents would be rated high on support and help.

Purpose of This Study

To date, research on the topic of cyberbullying is limited, especially with samples from US regions. The media have increased awareness of the rising prevalence of cyberbullying. Continuing research may shed additional light on instances where cyberbullying occurs, whether it is more prevalent at certain ages, with a certain gender, and its relationship to internet usage. According to previous research results, authoritarian parenting is theorized to have the most influence on bullying based on hypothesized relationships associated with Social Cognitive Theory and Social Learning Theory (Thornberg, 2010; Tokunaga, 2010). When Thornberg (2010) talked to children about their interpretations of bullying, he explains that some children report that bullying is a result of social learning, stating that certain students bully because they learned from other older children. In a meta-analysis of 25 articles on cyberbullying, Tokunaga (2010) discovered that Social Cognitive Theory may explain that through social learning, victims of cyberbullies become cyberbullies themselves. In a parenting example, those children who see their parents as exerting harsher discipline may be learning these behaviors through observation, which may be demonstrated as bullying and/or cyberbullying. While bullies tend to have authoritarian parents, who offer little parental support (Baldry & Farrington, 2000), the direct link to Social Cognitive Theory and Social Learning Theory remain speculative. Ecological Systems Theory would suggest that parents and other immediate family members have the closest influences on a child, since they fall at

the microsystem (Bronfenbrenner, 1979). Parent/teacher interactions (mesosystem) and community based resources (exosystem) would also influence a child. Parental influence is an important factor when investigating bullying and cyberbullying.

The purpose of this study is to increase our limited knowledge on cyberbullying by investigating and comparing cyberbullying and bullying rates, victimization rates among middle school and early high school ages, as well as internet usage, and parenting styles and parental influences as correlates of bullying and cyberbullying. My focus is on middle school and early high school years because research has indicated that a peak for bullying and cyberbullying occurs in ages 13 to 15 (Tokunaga, 2010; Williams & Guerra, 2007). Specifically, I am investigating the influence of parental help, parental pressure, and parental support and their relationships to bullying, cyberbullying, and victimization, as previous research has supported relationships between parental styles and these troubling behaviors (Baldry & Farrington, 2000; Hussein, 2010; Kim et al., 2009; Wang et al., 2009). The implications of the current study may include information for developing effective bullying and cyberbullying interventions.

My research questions are as follows:

Q1. What are the self-reported rates of internet usage; including how often students are online, environments in which they are online, and what they do online?

Q2a. What are the rates of bullying, cyberbullying and victimization from bullying and cyberbullying for my sample of 7th, 8th, and 9th graders?

Q2b. H1. Are there significant differences in the rates of bullying, cyberbullying, and victimization between 7th, 8th and 9th grades? Based on previous studies by Williams

and Guerra (2007) and Wei, Williams, Chan & Chang (2009), I hypothesize that 8th grade will have the highest rates for bullying, cyberbullying, and victimization.

Q3. H2. Is there an interaction effect between gender and types of bullying? Based on previous studies by Kowalski & Limber (2007) and Pornari and Wood (2010), I hypothesize that there will be higher rates of cyberbullying in females than males. There will be higher rates of traditional bullying in males than females, based on findings by Baldry and Farrington (2000), Hussein (2010) and Wei and colleagues (2009).

Q4. H3. Do different types of parenting predict bullying, cyberbullying and victimization in a differential manner? Based on studies from Baldry and Farrington (2000) and Wang and colleagues (2009), I hypothesize that increased parental pressure will predict significantly higher rates of bullying, cyberbullying, and victimization, than increased parental support and increased parental help.

The Inventory of Parental Influence, IPI, which I chose to use for identifying students' perceived parenting styles, purports to measure 5 constructs as subscales: Help, Support, Pressure, Press for Intellectual Development and Monitoring/Supervision (Campbell & Verna, 2007). Based upon my review, I would expect that authoritative parents would be high on support and help subscales. I would also expect that parents who are high on pressure and press for intellectual development subscales are somewhat synonymous with the authoritarian parenting style.

Chapter 2

Materials and Methods

Methods

Participants. A total of 77 students attending a Southeastern Tennessee City Middle and High School participated in this study. There were 23 seventh grade students, 31 eighth grade students and 23 ninth grade students. My sample was mostly female (59.7%; $n = 46$) with 31 males (40.3%). Most of the sample was Caucasian (67.5%; $n = 52$) with 19.5% ($n = 15$) identifying as Hispanic. There were also three African Americans, two Asian/Pacific Islanders, and five students who identified with “Other”. Most students were in the 8th grade (40.3%; $n = 31$). There were an equal number of students, 23, in both the 7th and 9th grades (29.9% in each grade; $n = 23$ in each grade). Participants were between 13 and 16 years old. Fifteen year olds represented 40.3% of the sample ($n = 31$) and fourteen year olds represented 28.6% of the sample ($n = 22$). There were also 16.9% ($n = 13$) 16 year olds and 14.3% ($n = 11$) 13 year olds.

Procedures. In my target school district, I provided each of the teachers in grades 7 through 9 with several copies of the Parental Consent Forms (Appendix D) to send home with their students. The students were asked to give the parent consent forms to their parents and bring them back within a week’s time. I gave enough parent consent forms to the teachers so that they could send consent forms out again in a week, in case students forgot to give the first forms to their parents. Students whose parents consented to allow them to participate were provided an opportunity to answer the questionnaires

on-line. The student assent forms (Appendix E) were presented to students at the beginning of the on-line questionnaires.

The online questionnaire included a Demographic Information Sheet (Appendix F), the *Bullying/Cyberbullying Scale* (Appendix G), and *The Inventory of Parental Influence* (Appendix H). The Demographic Information Sheet asked students for their age (in years), gender, grade and frequency and type of internet use.

Data collection took place over approximately two weeks. Students completed their questionnaires during regularly-scheduled computer time. During these periods, every student was seated at a computer. The questionnaire activities did not interfere with regularly scheduled academic instruction. School counselors instructed the students in logging onto the questionnaire sites. The counselors provided brief instructions, which were along the lines of: “Read the instructions on your screen and start working. Please keep your eyes on your own screen. If any of the questions you are asked make you feel uncomfortable, please tell me or your teacher. You are free to skip any questions you do not feel comfortable answering. If you want to stop answering the questions altogether, please tell me and I will log you off of the computer and delete your responses.”

Participants were given approximately 15 minutes to complete the questionnaires.

School counselors showed the students how to complete the online questionnaire, but did not answer any of the items for them nor tell them which items to choose. Those who had not obtained parental consent, or had opted not to do the study continued working on other computer related material at the teacher’s discretion. The questionnaires were filled

out in an anonymous manner. If a participant withdrew from the study during the period when he/she was completing the questionnaire, the information was deleted.

Measures. *The Bullying/Cyberbullying Scale*, designed to be used with children, measures bullying/victimization behavior among peers in or near school. This scale consists of comparisons of behaviors associated with bullying and cyberbullying. While this scale was based on the Olweus' Bully/Victim questionnaire which has sufficient construct and discriminant validity (Solberg & Olweus, 2003), the specific validity and reliability for the current measure remains unknown (Smith et al., 2008). The entire scale is composed of 8 items, each of which has multiple responses from which the student can choose. This scale also has questions regarding internet usage, which include seven questions about the student's ability to use computers and how long they use the internet per week.

The Inventory of Parental Influence, IPI, is designed to evaluate children's perceptions of the influence of their parents. This scale has been used in evaluation in over nine countries (e.g., Campbell & Verna, 2007). This scale is composed of 33 items, each of which has a five-point Likert type scale for responses (i.e. never to always). The IPI has five subscales consisting of Help (alpha $r = .85$), Support (alpha $r = .71$), Pressure (alpha $r = .76$), Press for Intellectual Development (alpha $r = .83$), and Monitoring/Supervision (alpha $r = .76$) (Campbell & Verna, 2007). Similar to the Cyberbullying Scale, the IPI can be group administered and takes children approximately 5-10 minutes to complete. For this study, the scale was administered online.

As a result of the ambiguity in the literature of which items fit in which factor in the *IPI* and in order to ensure that the correct items were obtained for each factor, I conducted a factor analysis based on the data from my participants. In keeping with the research questions I only focused on the first three subscales: Help, Support and Pressure. In my data analysis, I included only items loading .3 or higher on their relevant factor, which can be found in Appendix B-1. Two scales, Press for Intellectual Development, and Monitoring/Supervision did not obtain more than three factor loadings and were not included in my hypotheses of parenting styles. Therefore I did not include those purported factors in my data analyses. I then calculated factor means for each participant for each of the three subscales across participants.

Chapter 3

Results

Descriptives can be found in Appendix B-2, and B-3.

Question 1.

What are the self-reported rates of internet usage; including how often students are online, environments in which they are online, and what they do online?

Over 90% of the students in the sample rated themselves as having an “okay” (46.8%; $n = 36$) or “excellent” (45.5%; $n = 35$) ability to use computers (see Appendix B-3). Only three students (3.9%) rated themselves as being “not very good” with computers (while 3 students did not answer this question). When asked about time spent on the internet weekly, most students (55.8%; $n = 43$) reported spending 0 to 4 hours on the internet per week. The remaining students reported spending 5 to 9 hours on the internet per week (18.2%; $n = 14$) or more than 10 hours on the internet per week (19.5%; $n = 15$). When asked about where they use the internet, almost half reported that they use the internet in their bedroom (44.2%; $n = 34$). About half of the students said that they use the internet at home, but not in their bedroom (50.6%; $n = 39$). Also, about half of the students said that they use the internet at school (49.4%; $n = 38$). Many students also reported using the internet at a friend’s house (42.9%; $n = 33$), at a relative’s house (37.7%; $n = 29$), or at the library (9.1%; $n = 7$).

Students had many purposes for using the internet. A majority of students (71.4%; $n = 55$) report using social networking sites (such as Facebook, MySpace, etc.). While over half use the internet for surfing the net (62.3%; $n = 48$), only 19.5% ($n = 15$)

report using chat rooms. Almost half of the students reported using the internet to send and receive emails (45.5%; $n = 35$), download music, films or programs (44.2%; $n = 34$), instant messaging (32.5%; $n = 25$), and online shopping (28.6%; $n = 22$). Half of the students (50.6%; $n = 39$) report using the internet for schoolwork, while a large majority (70.1%; $n = 54$) of students report using the internet for playing games.

Question 2a.

What are the rates of bullying, cyberbullying and victimization from bullying and cyberbullying for my sample of 7th, 8th, and 9th graders? See Appendix B-4 and Tables 1, 2, and 3 for frequencies.

Table 1. Bullying, Cyberbullying, and Victimization Lifetime Rates

	Total n (%)
Bully	41 (53.2%)
Cyberbully	24 (31.2%)
Bully Victim	47 (61%)
Cyberbully Victim	26 (33.8%)

As seen in Table 1, over half of the students (53.2%, $n = 41$) had taken part in bullying at some point in their lives. About a third of the students (31.2%, $n = 24$) had taken part in cyberbullying during the same time period. Overall, 49.4% ($n = 38$) of the

students had been bullied at some point in their lives, while 28.6% had been cyberbullied ($n = 22$).

Of the students who took part in cyberbullying, the most popular type of cyberbullying was prank or silent phone calls (22.1%, $n = 17$). The second and third most popular type of cyberbullying was insulting someone on a website (including Facebook, Myspace, etc.) (14.3%, $n = 11$) and sending nasty text messages (making threats and comments) (11.7%, $n = 9$). Fewer students described themselves as “Happy Slapping” (a fad in the UK and Europe that includes victimization while taking pictures and/or videos recorded on a mobile phone) (6.5%, $n = 5$), sending rude or nasty emails (5.2%, $n = 4$), insulting someone on Instant Messaging (3.9%, $n = 3$), and in a chat room (3.9%, $n = 3$).

Of those students who took part in bullying, most students reported calling someone names (33.8% of the entire sample, $n = 26$). Students also reported teasing (28.6%, $n = 22$), leaving someone out or excluding them (28.5%, $n = 22$). Some students reported punching, kicking or physically hurting another student (10.4%, $n = 8$), threatening others (13%, $n = 10$), spreading rumors (16.9%, $n = 13$), or calling someone gay even if it was not true (14.3%, $n = 11$). Few students reported damaging or stealing belongings (5.2%, $n = 4$), bullying someone because of their race (3.9%, $n = 3$), bullying someone because they had an illness or disability (3.9%, $n = 3$), or bullying someone because of their religion (2.6%, $n = 2$).

Students who were victims of cyberbullying reported being cyberbullied through nasty text messages (33.8% of the entire sample, $n = 20$), being insulted on a website

(including Facebook, Myspace, etc. (24.7%, $n = 19$), and through prank or silent phone calls (22.1%, $n = 17$). Few students reported being cyberbullied through “Happy Slapping” (pictures/videos recorded on a mobile phone) (9.1%, $n = 7$), through rude or nasty emails (6.5%, $n = 5$), insults on Instant Messaging (7.8%, $n = 6$), or in a chat room (5.2%, $n = 4$).

Students who were victims of bullying reported mostly being called names (51.9% of the entire sample, $n = 40$), being teased (36.4%, $n = 28$), having rumors spread about them (36.4%, $n = 28$), or being left out or excluded (29.9%, $n = 23$). Some students reported being threatened (20.8%, $n = 16$), having damaged or stolen belongings (19.5%, $n = 15$), being punched, kicked or physically hurt (16.9%, $n = 13$), or being called gay even if it’s not true (18.2%, $n = 14$). Few students reported being bullied because of their race (10.4%, $n = 8$), because of an illness or disability (3.9%, $n = 3$), or because of their religion (1.3%, $n = 1$).

Table 2. How Long Ago Did The Bullying, Cyberbullying, or Victimization Last Happen?

	Bullying n (%)	Cyberbullying n (%)	Bullying Victimization n (%)	Cyberbullying Victimization n (%)
Within the last week	5 (6.5%)	5 (6.5%)	6 (7.8%)	6 (7.8%)
Within the last month	2 (2.6%)	1 (1.3%)	5 (6.5%)	3 (3.9%)
This term	7 (9.1%)	4 (5.2%)	2 (2.6%)	3 (3.9%)
This school year	17 (22.1%)	11 (14.3%)	17 (22.1%)	9 (11.7%)
Over one school year ago	6 (7.8%)	3 (3.9%)	13 (16.9%)	6 (7.8%)
Never	39 (50.8%)	53 (68.8%)	34 (44.2%)	50 (64.9%)

As seen in Table 2, above, when asked how long ago bullying, cyberbullying, or victimization by either happened, those who took part in bullying reported mostly this school year (22.1% of the entire sample, $n = 17$). Others said this term (9.1%, $n = 7$), within the last week (6.5%, $n = 5$), or within the last month (2.6%, $n = 2$). Few students said that they took part in bullying over one school year ago (7.8%, $n = 6$). Most students who took part in cyberbullying reported that it occurred during this school year (14.3%, $n = 11$). Others said within the last week (6.5%, $n = 5$), this term (5.2%, $n = 4$), or within the last month (1.3%, $n = 1$). Again, only a few students reported taking part in cyberbullying over one school year ago (3.9%, $n = 3$).

About a fifth of those who were victims of bullying reported that it took place during this school year (22.1% of the entire sample, $n = 17$). Some said it occurred within the last week (7.8%, $n = 6$), within the last month (6.5%, $n = 5$), or this term (2.6%, $n = 2$). A smaller proportion said that the victimization took place over one school year ago (16.9%, $n = 13$). Most of those students who were victims of cyberbullying reported that it took place during this school year (11.7%, $n = 9$). Some said that it took place within the last week (7.8%, $n = 6$), within the last month (3.9%, $n = 3$), or this term (3.9%, $n = 3$). Some students reported that this victimization by cyberbullying took place over one school year ago (7.8%, $n = 6$).

Table 3. Did You Tell Anyone About Being Bullied or Cyberbullied?

	Bullying Victimization n (%)	Cyberbullying Victimization n (%)
Yes, I did tell someone	25 (32.5%)	18 (23.4%)
No, I did not tell anyone	18 (23.4%)	10 (13%)
No, I have never been bullied or cyberbullied	34 (44.2%)	49 (63.6%)

As seen in Table 3, above, most students who were victims of bullying told someone about it (32.5% of the entire sample, $n = 25$). Less than a quarter, (23.4%, $n = 18$) reported that they did not tell anyone about the incident. Most students who were

victims of cyberbullying told someone about it (23.4%, $n = 18$). Only 13% ($n = 10$), reported that they did not tell anyone about the incident.

Question 2b. Hypothesis 1.

Are there significant differences in the rates of bullying, cyberbullying, and victimization between 7th, 8th and 9th grades? Based on previous studies by Williams and Guerra (2007) and Wei, Williams, Chan & Chang (2009), I hypothesized that 8th grade will have the highest rates for bullying, cyberbullying, and victimization. See Table 4 below for bullying, cyberbullying, and victimization rates separated by grade level.

Table 4. Bullying, Cyberbullying, and Victimization by Grade

	7 th Grade n (%)	8 th Grade n (%)	9 th Grade n (%)
Bully	14 (60.9%)	15 (48.4%)	12 (52.2%)
Cyberbully	6 (26.1%)	9 (29%)	9 (39.1%)
Bully Victim	16 (69.6%)	17 (54.8%)	14 (60.9%)
Cyberbully Victim	7 (30.4%)	8 (25.8%)	11 (47.8%)

Chi-square analyses were conducted to compare grade levels for bullying, cyberbullying, and victimization rates. No significant differences were found. See Appendix C-1 for analysis results.

Question 3. Hypothesis 2.

Is there an interaction effect between gender and types of bullying? Based on previous studies by Kowalski & Limber (2007) and Pornari and Wood (2010), I hypothesize that there will be higher rates of cyberbullying in females than males. There will be higher rates of traditional bullying in males than females, based on findings by Baldry and Farrington (2000), Hussein (2010) and Wei and colleagues (2009). See Table 5 below for bullying, cyberbullying and victimization means by gender and total.

Table 5. Bullying, Cyberbullying, and Victimization by Gender

	Males n (%)	Females n (%)	Total n (%)
Bully	14 (45.2%)*	27 (58.7%)*	41 (53.2%)
Cyberbully	3 (9.7%)**	21 (45.7%)**	24 (31.2%)
Bully Victim	16 (51.6%)*	31 (67.4%)*	47 (61%)
Cyberbully Victim	4 (12.9%)**	22 (47.8%)**	26 (33.8%)

* denotes $p < .05$; ** denotes $p < .001$

Chi-square goodness of fit analyses were conducted to compare gender and bullying, cyberbullying, and victimization. Significantly more females were perpetrators of bullying than males, $X^2 = 4.03$, $df = 1$, $p < .05$. Significantly more females were also

victims of bullying than males, $X^2 = 4.84$, $df = 1$, $p < .05$. Significantly more females were perpetrators of cyberbullying than males, $X^2 = 133.61$, $df = 1$, $p < .001$. Along similar lines there were significantly more females who were victims of cyberbullying than males, $X^2 = 94.42$, $df = 1$, $p < .001$.

Question 4. Hypothesis 3.

Do different types of parenting predict bullying, cyberbullying and victimization in a differential manner? Based on studies from Baldry and Farrington (2000) and Wang and colleagues (2009), I hypothesize that increased parental pressure will predict significantly higher rates of bullying, cyberbullying, and victimization, than increased parental support and increased parental help.

To approach this question, I ran four discriminant function analysis to determine whether the parental influences (help, support, and pressure), would predict bullying, cyberbullying and victimization by bullying and cyberbullying. All results were non-significant. For bullying, the discriminant function analysis was not significant, only predicting 3% of between group variability, Wilks's $\Lambda = .970$, $\chi^2(3, N = 76) = 2.213$, *n.s.* For cyberbullying, the discriminant function analysis was not significant, only predicting 2% of between group variability Wilks's $\Lambda = .984$, $\chi^2(3, N = 76) = 1.173$, *n.s.* For victimization from bullying, the discriminant function analysis was not significant, only predicting 1% of between group variability Wilks's $\Lambda = .997$, $\chi^2(3, N = 76) = .253$, *n.s.* For victimization from cyberbullying, the discriminant function analysis was not significant, only predicting 1% of between group variability Wilks's $\Lambda = .996$, $\chi^2(3, N = 76) = .275$, *n.s.* See Appendix C-2 for analysis results.

Chapter 4

Discussion

I carried out this study in an effort to gain some understanding of the correlation between internet use, bullying, cyberbullying, victimization by bullying and cyberbullying, and parenting styles. In line with previous research, almost half of my sample used the internet in their bedroom, while about half used it in their home, but not in their bedroom (Mishna et al., 2012). My rate seems comparable to the previous research (Kwan & Skoric, 2013; Mishna et al., 2012); however, I believe that this rate will gradually increase with the rise of the accessibility of lower cost computers and readily available internet access. A large majority of students used the internet for social networking sites (71.4%) in my sample. I suspect this rate will increase gradually with the rise of social networking available on mobile phones and portable hand-held devices. Simply using these sites has been suggested as a contributing factor in cyberbullying (Kwan & Skoric, 2013). We need to be mindful of students' internet use and provide guidance for it, as it may put students at risk for cyberbullying. More research needs to be carried out in this area to establish trends in internet social network use, and to provide guidance for the need for instruction and intervention with early adolescents.

The prevalence of bullying, cyberbullying and victimization in this sample was high. Over half of the students (53.2%, $n = 41$) had taken part in bullying in their lifetime. About a third of the students (31.2%, $n = 24$) reported taking part in cyberbullying. Pergolizzi and her colleagues (2009) reported that 45% of students admitted to bullying and 15% of students admitted to cyberbullying in their lifetime.

When the timeframe of bullying is shorter, these rates drop. Kowalski and colleagues (2012) reported that 31.8% of students admitted to bullying and 10.9% of students admitted to cyberbullying, when asked to reflect upon the last two months, as compared to 53.2% and 31.2% respectively in my study.

Some bullying studies have reported higher rates than my data demonstrate. When asked to reflect upon the last month, Bosworth and colleagues (1999) surveyed seventh and eighth graders in the Midwest, and reported that 81% of the students reported engaging in bullying behavior during that period. More recently, Kwan and Skoric (2013) replicated these results with their large sample students ($N = 1,597$) aged 13 to 17 in Singapore. The researchers indicated that 71% percent of students reported engaging in bullying in the last year. My findings regarding bullying and cyberbullying rates are somewhat consistent with these higher rates. Additional probes with the Southeastern US region are needed to verify these rates for generalization purposes.

Victimization by both bullying and cyberbullying are also high in my sample. Overall, 49.4% ($n = 38$) of the students had been bullied in their lifetime, while 28.6% were victims of cyberbullying ($n = 22$). As with bullying and cyberbullying rates, these rates tended to be higher than previous studies reported, but are consistent with the data I obtained for bullying and cyberbullying. Recently, Kowalski and colleagues (2012), in a large sample of 4,531 US students from eight different regions in grades 6 through 12, reported that 37.8% of students reported being victims of bullying, while 17.3% of students were victims of cyberbullying in the last two months. As I have mentioned

before, time spans for citing bullying vary across studies; my higher rates most likely reflect the longer time frame in my questions.

A small majority of those who had been bullied or cyberbullied told someone about their victimization, 58% and 64% respectively. In a previous study of 830 students aged 9 to 14 in the UK, 78% of those victimized reported telling someone about the situation (Hunter, Boyle, & Warden, 2004). Most students told a friend (27%) or family member (28%). Significantly more females than males reported telling someone. Similar results were found in a more recent study by Ashbaughm and Cornell (2008). In this study, 109 sixth grade students in Virginia were surveyed about their bullying and sexual harassment experiences. Here, 72% of the students told someone about the harassment. Girls were more likely than boys to tell someone they were sexually harassed, but boys were more likely than girls to report being physically bullied (Ashbaughm & Cornell, 2008). Participants in my sample were less likely to report their experiences to someone as previous studies indicate. My findings point to the need for continued interventions focusing on urging students to report bullying to responsible adults.

When the sample is split by gender, my findings contrasted with previous literature. In my sample there were gender differences with both bullying and victimization by bullying. Females in this sample were more likely to be both bullies and victims of bullying than males. This finding contrasts with previous researchers who reported more male bullies than female bullies (Baldry & Farrington, 2000; Gofin & Avitzour, 2012; Hussein, 2010; Kowalski, Morgan & Limber, 2012; Wei et al., 2009).

This may be attributed to the small number of males ($n = 31$) in my sample, potentially resulting in a Type II error.

In my study, more females were cyberbullies and victims of cyberbullying than expected, based on statistical analysis. Previous researchers have reported inconsistent findings, that there are more female cyberbullies than males (Kowalski & Limber, 2007; Moore, Huebner, & Hills, 2012; Pornari and Wood, 2010) and more male cyberbullies than females (Gofin & Avitzour, 2012; Kowalski, Morgan & Limber, 2012). My findings support those of Kowalski and Limber's (2007) and Pornari and Wood's (2010), discussed in Chapter 1. More recently, Gofin and Avitzour (2012) and Kowalski and colleagues (2012) have reported studies obtaining more male cyberbullies than female cyberbullies in their samples.

Previous findings are inconsistent on the differences between cybervictimization and gender as well (Gofin & Avitzour, 2012; Kowalski et al., 2012; Moore, Huebner, & Hills, 2012; Olenik-Shemesh, Heiman, & Eden, 2012). The inconsistency across studies may be resolved by future researchers with efforts to maintain a random sample and to provide questions based upon a standard timeframe, such as the past year or current school year. My results indicated more females were victims of cyberbullying, lending support to the findings of Kowalski, Morgan and Limber (2012) and Olenik-Shemesh, Heiman, and Eden (2012). Similar to previous findings for cyberbullying, other researchers have found that more males were victims of cyberbullying than females (Gofin & Avitzour, 2012; Moore, Huebner, & Hills, 2012).

In contrast with previous research, I found no differences between grade levels for bullying, cyberbullying, or victimization. While previous researchers have indicated that 8th grade was the peak for bullying and cyberbullying (Wei, Williams, Chan & Chang, 2009; Williams and Guerra, 2007), this trend was not replicated in my study. This may be due to my small sample size, which increased the possibility of a Type II error. There have not been any recent findings regarding grade differences, so updates are needed for this line of research. I speculate that with the rise of electronic devices, cyberbullying may continue to occur at approximately equal rates across middle and early high school grades.

Also in contrast with previous research, I found no differences in parental influence for bullying, cyberbullying, or victimization. Previous research has indicated that increased parental pressure may place students at risk for troubled peer interactions (Hussein, 2010; Kim et al., 2009). Other researchers report that increased parental support is an important facet which may lead to lower levels of bullying and cyberbullying (Baldry & Farrington, 2000; Wang et al., 2009). Based upon concurrent data from a South Korean sample collected by my colleagues and I, students rated their parents as placing less pressure, having less support, and providing less help than students in our present sample (Black, Hunt, Bain & Oh, 2012). The influence of parenting styles may vary a lot across ethnic and cultural settings. Cultural influences on the relationship between parenting styles and bullying should be investigated in future studies.

While I framed my study questions regarding a hypothesized relationship between parenting styles and bullying, cyberbullying, and victimization behaviors based upon three theoretical models, my results offered no salient support for the three models (Social Cognitive Theory, Social Learning Theory, or Ecological Systems Theory). According to Thornberg (2010) and Tokunaga (2010), authoritarian parenting is theorized to have the most influence on bullying based on hypothesized relationships associated with Social Cognitive Theory and Social Learning Theory. While Baldry and Farrington report that bullies tend to have authoritarian parents, who offer little parental support, my findings did not support this hypothesized relationship. Ecological Systems Theory (Bronfenbrenner, 1979) would have explained that parents and other immediate family have strong influences on a child, but this was not supported based on my results.

Limitations in the current study include sample size, as mentioned previously. As always, a larger sample from varied schools and regions would have been ideal. Gaining a sample that comes from different areas in the Southeastern US would allow for generalizability for this area.

Additionally, there might be more effective instruments that I could have used for bullying and parenting. The instrument I used for self-report of bullying and cyberbullying behaviors featured dichotomized (yes/no) responses and probably limited some of my analyses to nonparametric types. Responses to the bullying/cyberbullying scale I used were based upon dichotomous answers. Instruments that involve likert-like rating scales might have enhanced my ability to obtain statistical results that would allow elaborations in my interpretation. For cyberbullying, the *Cyberbullying Scale (CS)* that

was developed by Menesini, Nocentini, and Calussi (2011) may be an appropriate instrument for future studies. This instrument has two scales, one for perpetration and one for victimization, each with 10 items. It asks students to reflect on the last two months on different behaviors and uses a likert-type response: never; only once or twice; two or three times a month; about once a week; several times a week. By using a continuous variable instead of the dichotomous variable that I used, researchers will be able to use more in-depth analysis to investigate differences within and relationships between bullying, cyberbullying, and victimization.

For parenting, future researchers may choose to use a different instrument such as Children's Report of Parent Behavior (*CRPBI*) (Schludermann & Schludermann, 1970). The *CRPBI* is an inventory that asks a child's perceptions of their parent's behavior. The modified version includes 18 scales, with three main factors. These factors include Acceptance vs. Rejection, Psychological Control vs. Psychological Autonomy and Firm Control vs. Lax Control. In using this instrument, researchers may be able to distinguish specific differences in these factors in relation to bullying, cyberbullying and victimization. However, I note that this instrument, like the IPI, is not a direct measure of Baumrind's parenting styles.

To gain a more adept view on specific parenting styles, such as Authoritarian, Authoritative, Permissive, and Neglectful, the Parenting Style Questionnaire (PSQ) might be an effective choice (Lamborn, Mounts, Steinberg, & Dornbusch, 1991). This scale includes two subscales, parental warmth/involvement and parental strictness/supervision.

From there, total scores can be used to identify the four types of parenting styles as developed by Baumrind (1971).

Future research is needed to identify the potential harmful effects of using social networking sites. Recently, Devine and Lloyd (2012) investigated the use of social networking sites and psychological well-being; students who said they used social networking sites were significantly more likely to have a lower score on the psychological well-being scale. While their effect size is small, this could be an area for productive research since the majority of students appear to use social networking sites.

Future researchers may also want to investigate parental monitoring of their child's internet use and its relationship to cyberbullying and victimization. Most of the current sample, over 70%, uses social networking sites. A few studies have investigated how often parents monitor their children's internet use, including social networking sites such as Facebook and MySpace. Rosen, Cheever and Carrier (2008) investigated parent awareness of their teen's MySpace use. This included a sample of 341 MySpace users (ages 10 to 18) and parents in the Los Angeles Area. Rosen and his colleagues (2008) reported that a large number of parents (38%) reported that they had not seen their teen's MySpace page. Parents were more likely to view a younger child's (ages 10 to 13) MySpace page versus an older child's (ages 16 to 18). Parents also tended to underestimate the extent to which their child gave out important information, such as full name and email address (Rosen et al., 2008). Parental monitoring of internet use may be an important factor in reducing bullying, cyberbullying and victimization. While parental monitoring might help at home, there also needs to be supportive interventions at school.

The amount of discrepant results in the area of gender indicates a need for a large study investigating gender differences in cyberbullying and victimization. Previous literature is inconsistent on the differences between cybervictimization and gender (Gofin & Avitzour, 2012; Kowalski, Morgan & Limber, 2012; Moore, Huebner, & Hills, 2012; Olenik-Shemesh, Heiman, & Eden, 2012). If gender differences are determined to be stable at least within a school or region, it may be useful in determining gender-specific appropriate and effective interventions. Possibly splitting classes by gender for cyberbullying interventions might prove beneficial.

With the high rates of bullying, cyberbullying and victimization, continuous monitoring of students in schools within the Southeastern region is recommended. A strong effort is needed to decrease bullying and cyberbullying among early adolescence. Kowalski and Agaston (2008) developed a preventive curriculum for cyberbullying specifically targeting students in grades 6-12. This intervention employs peer leaders to help students understand cyberbullying and ways to resist and intervene. Teachers need to be trained adequately in order to implement intervention strategies. Based on variations in research findings, interventions will need to be continuously modified to meet the current needs of the students. Implementation of school-wide prevention programs that include issues related to social networking are strongly encouraged (see Raskauskas & Stoltz, 2007).

Conclusion

My rates for bullying, cyberbullying, and victimization were high. It needs to be taken into consideration that these are lifetime rates, which may account for the inflation.

Over half of the students (53.2%, $n = 41$) had taken part in bullying in their lifetime. About a third of the students (31.2%, $n = 24$) reported taking part in cyberbullying. Overall, 49.4% ($n = 38$) of the students had been bullied in their lifetime, while 28.6% were victims of cyberbullying ($n = 22$). While previous researchers have found contrasting results, in my study, significantly more females were cyberbullies and victims of cyberbullying than males. Also, significantly more females were bullies and victims of bullying than males.

I did not find any differences when investigating differences of grade or parental influence on bullying, cyberbullying or victimization by bullying or cyberbullying. The lack of correlations between parenting and bullying removes parents from serious implications regarding potential influences on their children's potential for bullying or for victimization. However, parental monitoring of internet use should be a future avenue for researchers as this may be correlated to cyberbullying.

Continued monitoring of bullying and cyberbullying behaviors in these grade levels is warranted. Interventions for decreasing the rates of both bullying and cyberbullying are suggested. It may be beneficial to have specific female-oriented interventions where a constructive dialog between adolescent females can begin. School-wide interventions that focus on both bullying, cyberbullying, and internet safety would also be advantageous.

List of References

- Ashbaughm, L. P. & Cornell, D. G. (2008). Sexual harassment and bullying behaviors in sixth-graders. *Journal of School Violence*, 7(2), 21-38.
doi:10.1300/J202v07n02_03
- Baldry, A. C. & Farrington, D. P. (2000). Bullies and delinquents: Personal characteristics and parental styles. *Journal of Community & Applied Social Psychology*, 10, 17-31. Retrieved from
[http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1099-1298](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1298)
- Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development*, 37(4), 887-907. Retrieved from
[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1467-8624](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1467-8624)
- Bene, J. & Anthony, J. (1957). *Manual for the Family Relations Test*. London: National Foundation for Education Research.
- Black, M. P., Hunt, A. E., Bain, S. K., & Oh, E. J. (2012). A cross-cultural comparison of bullying and cyberbullying among adolescents. Paper presented at the National Association for School Psychologists Annual Convention.
- Bosworth, K., Espelage, D.L., & Simon, T.R. (1999). Factors associated with bullying behavior in middle school students. *Journal of Early Adolescence*, 19(3), 341-362. doi:10.1177/0272431699019003003
- Bowers, L., Smith, P.K., & Binney, V. (1994). Perceived family relationships of bullies, victims and bully/victims in middle childhood. *Journal of Social and Personal Relationships*, 11, 215-232. doi:10.1177/0265407594112004
- Bronfenbrenner, U. (1979). *Ecology of human development: Experiments by nature and design*. Cambridge: Harvard University Press.
- Campbell, J.R. & Verna, M.A. (2007). Effective parental influence: Academic home climate linked to children's achievement. *Educational Research and Evaluation*, 13(6), 501-519. doi:10.1080/13803610701785949
- Carlson, L.W. & Cornell, D.G. (2008). Differences between persistent and desistent middle school bullies. *School Psychology International*, 29(4), 442-451.
doi:10.1177/0143034308096433
- Center for Disease Control (2010). *Leading cause of death reports 1999-2007* [data file]. Available from <http://webappa.cdc.gov/sasweb/ncipc/leadcaus10.html>

- Chaux, E., Molano, A., Podlesky, P. (2009). Socio-economic, socio-political, and socio-emotional variables explaining school bullying: A country-wide multilevel analysis. *Aggressive Behavior, 35*, 520-529. doi:10.1002/ab.20320
- Devine, P. & Lloyd, K. (2012). Internet use and psychological well-being among 10-year-old and 11-year-old children. *Child Care in Practice, 18*(1), 5-22. doi:10.1080/13575279.2011.621888
- Esbensen, F. & Carson, D.C. (2009). Consequences of being bullied: Results from a longitudinal assessment of bullying victimization in a multisite sample of American students. *Youth & Society, 41*(2), 209-233. doi:10.1177/0044118X09351067
- Gehring, T.M. & Wyler, I.L. (1986). Family Systems Test (FAST): A three dimensional approach to investigate family relationships. *Child Psychiatry and Human Development, 16*, 235-248. doi:10.1007/BF00706480
- Gofin, R. & Avitzour, M. (2012). Traditional versus internet bullying in junior high school students. *Maternal and Child Health Journal, 16*, 1625-1635. doi:10.1007/s10995-012-0989-8
- Harris, M. J. (2009). *Bullying, rejection, and peer victimization: A social cognitive neuroscience perspective*. New York, NY: Springer Publishing Company.
- Hinduja, S. & Patchin, J. W. (2013). Social influences on cyberbullying behaviors among middle and high school students. *Journal of Youth and Adolescence* doi:10.1007/s10964-012-9902-4
- Hinduja, S. & Patchin, J. W. (2010). *Cyberbullying fact sheet* [PDF document]. Retrieved from Cyberbullying Research Center Web site: http://www.cyberbullying.us/Cyberbullying_Identification_Prevention_Response_Fact_Sheet.pdf
- Hunter, S. C., Boyle, J. M. E., & Warden, D. (2004). Help seeking amongst child and adolescent victims of peer-aggression and bullying: The influence of school-stage, gender, victimization, appraisal, and emotion. *British Journal of Educational Psychology, 74*, 375-390. doi:10.1348/0007099041552378
- Hussein, M. H. (2010). The peer interaction in primary school questionnaire: Testing for measurement equivalence and latent mean differences in bullying between gender in Egypt, Saudi Arabia and the USA. *Social Psychology Education, 13*(1), 57-76. doi:10.1007/s11218-009-9098-y

- Juvonen, J., Wang, Y., & Espinoza, G. (2011). Bullying experiences and comprised academic performance across middle school grades. *Journal of Early Adolescence, 31*(1), 152-173. doi:10.1177/0272431610379415
- Kawabata, Y., Alink, L. R. A., Tseng, W., van Ijzendoorn, M. H., & Crick, N. R. (2011). Maternal and paternal parenting styles associated with relational aggression in children and adolescents: A conceptual analysis and meta-analytic review. *Developmental Review, 31*, 240-278. doi:10.1016/j.dr.2011.08.001
- Kert, A.S., Coddling, R.S., Tyron, G.S., & Shiyko, M. (2010). Impact of the word "bully" on the reported rate of bullying behavior. *Psychology in the Schools, 47*(2), 193-204. Retrieved from [http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1520-6807](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1520-6807)
- Klagsbrun, M. & Bowlby, J. (1976). Responses to separation from parents: A clinical test for young children. *British Journal of Projective Psychology and Personality Study, 21*, 7-27.
- Kim, Y.S., Boyce, W.T., Koh, Y. & Leventhal, B.L. (2009). Time trends, trajectories and demographic predictors of bullying: A prospective study in Korean adolescents. *Journal of Adolescent Health, 45*, 360-367. doi:10.1016/j.jadohealth.2009.02.005
- Kowalski, R. M., & Agatston, P. W. (2008). *Cyber bullying: A prevention curriculum for Grades 6–12*. Center City, MN: Hazelden.
- Kowalski, R. M. & Limber, S.P. (2007). Electronic bullying among middle school students. *Journal of Adolescent Health, 41*, S22-S30. doi:10.1016/j.jadohealth.2007.08.017
- Kowalski, R. M., Limber, S. P., & Agatston, P. W. (2008). *Cyberbullying*. Malden, MA: Blackwell Publishing.
- Kowalski, R. M., Morgan, C. A., & Limber, S. P. (2012). Traditional bullying as a potential warning sign of bullying. *School Psychology International, 33*(5), 505-519. doi:10.1177/0143034312445244
- Kwan, G. C. E. & Skoric, M. M. (2013). Facebook bullying. An extension of battles in school. *Computers in Human Behavior, 29*(1), 16-25. doi:10.1016/j.chb.2011.03.031.
- Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 62*(5-6), 1049-1065. doi:10.1111/1467-8624.ep9112161645

- Menesini, E., Nocentini, A., & Calussi, P. (2011). The measurement of cyberbullying: Dimensional structure and relative item severity and discrimination. *Cyberpsychology, Behavior, and Social Networking, 14*(5), 267-274. doi:10.1089/cyber.2010.0002
- Mishna, F., Khoury-Kassabri, M., Gadalla, T., & Daciuk, J. (2012). Risk factors for involvement in cyber bullying: Victims, bullies and bully-victims. *Children and Youth Services Review, 34*, 63-70. doi:10.1016/j.childyouth.2011.08.032
- Moore, P. M., Huebner, E. S., & Hills, K. J. (2012). Electronic bullying and victimization and life satisfaction in middle school students. *Social Indicators Research, 107*(3), 429-447. doi:10.1007/s11205-011-9856-z
- Nabi, R. & Clark., S. (2008). Exploring the limits of Social Cognitive Theory: Why negatively reinforced behaviors on TV may be modeled anyway. *Journal of Communication, 58*, 407-427. doi:10.1111/j.1460-2466.2008.00392.x
- Nakamoto, J. & Schwartz, D. (2010). Is peer victimization associated with academic achievement? A meta-analytic review. *Social Development, 19*(2), 221-242. doi:10.1111/j.1467-9507.2009.00539.x
- Nishina, A. & Juvonen, J. (2005). Daily reports of witnessing and experiencing peer harassment in middle school. *Child Development, 76*(2), 435-450. doi:10.1111/j.1467-8624.2005.00855.x
- Olenik-Shemesh, D., Heiman, T., & Eden, S. (2012). Cyberbullying victimization in adolescence: Relationships with loneliness and depressive mood. *Emotional & Behavioural Difficulties, 17*(3-4), 361-374. doi:10.1080/13632752.2012.704227
- Ortega, R., Elipe, P., Mora-Mercha'n, J. A., Genta, M. L., Brighi, A., Guarinia, A., Smith, P. K., Thompson, F., & Tippett, N. (2012). The emotional impact of bullying and cyberbullying on victims: A European cross-national study. *Aggressive Behavior, 38*, 342-356. doi:10.1002/ab.21440
- Patchin, J. W. & Hinduja, S. (2010). Cyberbullying and self-esteem. *Journal of School Health, 80*(12), 614-621. doi:10.1111/j.1746-1561.2010.00548.x
- Pergolizzi, F., Richmond, D., Macario, S., Gan, Z., Richmond, C., & Macario, E. (2009). Bullying in middle schools: Results from a four-school survey. *Journal of School Violence, 8*(3), 264-279. doi:10.1080/15388220902910839

- Perren, S., & Alsaker, F. (2009). Depressive symptoms from kindergarten to early school age: Longitudinal associations with social skills deficits and peer victimization. *Child and Adolescent Psychiatry and Mental Health, 3*, 28. doi:10.1186/1753-2000-3-28
- Pornari, C.D. & Wood, J. (2010). Peer and cyber aggression in secondary school students: The role of moral disengagement, hostile attribution bias, and outcome expectancies. *Aggressive Behavior, 36*, 81-94. doi:10.1002/ab.20336
- Raskauskas, J. & Stoltz, A.D. (2007). Involvement in traditional and electronic bullying among adolescents. *Developmental Psychology, 43*(3), 564-575. doi:10.1037/0012-1649.43.3.564
- Reich, S. M. & Subrahmanyam, K. (2012). Friending, IMing, and hanging out face-to-face: Overlap in adolescents' online and offline social networks. *Developmental Psychology, 48*(2), 356-368. doi:10.1037/a0026980
- Rosen, L.D., Cheever, N.A., & Carrier, L.M. (2008). The association of parenting style and child age with parental limit setting and adolescent MySpace behavior. *Journal of Applied Developmental Psychology, 29*, 459-471. doi:10.1016/j.appdev.2008.07.005
- Sakellariou, T., Carroll, A., & Houghton, S. (2012). Rates of cyber victimization and bullying among male Australian primary and high school students. *School Psychology International, 33*(5), 533-549. Doi: 10.1177/0143034311430374
- Schludermann, E. & Schludermann, S. (1970). Replicability of factors in Children's Report of Parent Behavior (CRPBI). *The Journal of Psychology, 76*, 239-249.
- Schworm, P. (2011, May 4). Phoebe Prince's mother lashes out at daughter's tormentor. *The Boston Globe*. Retrieved from http://www.boston.com/news/local/breaking_news/2011/05/phoebe_princes_2.html
- Sidanius, J., Pratto, F., van Laar, C., Levin, S. (2004). Social dominance theory: Its agenda and model. *Political Psychology, 25*(6), 845-880. doi:10.1111/j.1467-9221.2004.00401.x
- Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry, 49*(4), 376-385. doi:10.1111/j.1469-7610.2007.01846.x

- Solberg, M., & Olweus, D. (2003). Prevalence estimation of school bullying with the Olweus Bully/Victim Questionnaire. *Aggressive Behavior, 29*, 239-268.
- Steinhauer, J. (2008, November 26). Verdict in MySpace suicide case. *The New York Times*. Retrieved from <http://www.nytimes.com/2008/11/27/us/27myspace.html>
- Thornberg, R. (2010). Schoolchildren's social representation on bullying causes. *Psychology in the Schools, 47*(4), 311-327. Retrieved from [http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1520-6807](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1520-6807)
- Tokunaga, R.S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior, 26*, 277-287. doi:10.1016/j.chb.2009.11.014
- Wei, H., Williams, J.H., Chen, J., & Chang, H. (2009). The effects of individual characteristics, teacher practice, and school organizational factors on student's bullying: A multilevel analysis of public middle schools in Taiwan. *Children and Youth Services Review, 32*, 137-143. doi:10.1016/j.childyouth.2009.08.004
- Williams, K. R., & Guerra, N. G. (2007). Prevalence and predictors of internet bullying. *The Journal of Adolescent Health, 41*(6), S14-21. doi:10.1016/j.jadohealth.2007.08.018
- Ybarra, M.L. & Mitchell, K.J. (2004). Youth engaging in online harassment: associations with caregiver-child relationships, Internet use, and personal characteristics. *Journal of Adolescence, 27*, 319-336. doi:10.1016/j.adolescence.2004.03.007

Appendices

Appendix A

Bullying Definitions

Cyberbullying is defined as a means of bullying in which peers use electronic devices "to taunt, insult, threaten, harass, and/or intimidate a peer" (Raskauskas & Stoltz, 2007, p. 565).

Bullying involves repeated aggressive acts (verbal or nonverbal) with the intention or motivation to harm another person (Harris, 2009; Kowalski, Limber, & Agatston, 2008).

Direct bullying would involve acts that are a direct assault on a person, such as physical attacks or being called names.

Physical bullying would be the physical acts of direct bullying, such as hitting, punching, or damaging belongings.

Indirect bullying would involve more social issues, such as excluding someone from a group or spreading rumors about a person.

Relational bullying would include these same issues, exclusion or spreading rumors, while also including teasing and name calling.

Verbal bullying would include verbal attacks, such as name calling or threatening.

Appendix B-1*Factor loadings for the Inventory of Parental Influence (IPI)*

	Help	Support	Pressure
My parents are never satisfied with my grades			.532
I think I do well in school, but my parents feel I could do better			.537
My parents do not feel I'm doing my best in school			.553
I'm glad my parents are concerned about my education		.745	
My parents are satisfied if I do my best.		.800	
My parents have much patience with me when it comes to my education		.729	
My parents expect too much of me			.774
My parents pressure me too much with my homework			.758
My parents are enthusiastic about my education		.360	
School would be more pleasant if my parents were not as strict			.607
My parents expect me to go to college		.580	
When it comes to school, my parents expect the impossible		.668	
My parents take a big interest in my schoolwork		.500	
My parents are "pushy" when it comes to my education			.593
I get along very well with my parents		.645	
My parents are pleased only if I get 100% on tests			
My parents are proud of me		.789	

Appendix B-1. Continued.

	Help	Support	Pressure
I do well in school mostly because of my parents' help	.392		
I don't think I'm as smart as my parents think I am			.641
I feel that children my age need their parents' guidance when it comes to school		.727	
My parents want me to go to a "good" college		.643	
I'm basically lazy and if it were not for my parents I would not be doing as well as I am in school			.570
My parents read to me right before I go to sleep			
My parents visit my school whenever they are asked		.540	
My parents keep track of the amount of time I give to homework			
My parents always wanted me to read a lot			
My parents encourage me to read books			
My parents help me with my school reports	.652		
When I am sick or not in school, my parents tell me to call a friend and get the work		.475	
My parents set rules on the kinds of TV shows I can watch		.402	
My parents want me to bring home test papers to see how well I did	.622		
I am expected to do my homework at the same time each night			
My parents buy books for presents			

Appendix B-1. Continued.

	Help	Support	Pressure
When I was in elementary school....			
My parents helped me with schoolwork I didn't understand	.771		
My parents helped me choose books to read	.670		
My parents checked my homework	.763		
My parents helped me study before a test.	.784		
Before I left for school my parent(s) asked me if I had everything I needed (homework, books, reports)	.711		
My parents helped me with school reports	.762		
Currently...			
Talk to my parent(s) about school	.560		
I talk to my parent(s) about my future plans for college.	.616		
I talk to my parent(s) about classes that I am taking.	.604		
My parent(s) ask me about homework and projects.	.671		
My parent(s) tell me how important it is to get an education	.517		
My parent(s) discuss their aspirations for me.	.623		
My parent(s) talk to me about choosing courses for next year	.592		
My parent(s) ask me about test grades	.748		
I talk to my parent(s) about what I am learning in school	.684		

Appendix B-1. Continued.

	Help	Support	Pressure
My parent(s) let me know what they expect from me in school	.656		
My parents helped me with schoolwork I didn't understand.	.757		
My parents helped me choose books to read			
My parents checked my homework	.656		
Before I left for school my parent(s) asked me if I had everything I needed (homework, books, reports)	.602		
My parents helped me with school reports	.845		

Appendix B-2.*Demographics for the Southeastern US*

	Male	Female	Total (%)
Race/Ethnicity			
Caucasian	19	33	52 (67.5%)
African American	3	0	3 (3.9%)
Hispanic	6	9	15 (19.5%)
Asian/Pacific Islander	2	0	2 (2.6%)
Other	1	4	5 (6.5%)
Grade			
7th	8	15	23 (29.9%)
8th	14	17	31 (40.3%)
9th	9	14	23 (29.9%)
Age in years			
16	7	6	13 (16.9%)
15	11	20	31 (40.3%)
14	9	13	22 (28.6%)
13	4	7	11 (14.3%)
Total	31 (40.3%)	46 (59.7%)	77 (100%)

Appendix B-3.*Computer and Internet Use*

	Male	Female	Total (%)
How would you rate your ability to use computers?			
Not very good	2	1	3 (3.9%)
Okay	15	21	36 (46.8%)
Excellent	12	23	35 (45.5%)
On average, how long do you spend on the internet per week?			
0-4 hours	17	26	43 (55.8%)
5-9 hours	3	11	14 (18.2%)
10-14 hours	5	4	9 (11.7%)
15-19 hours	1	0	1 (1.3%)
20 or more hours	2	3	5 (6.5%)
Where do you use the internet?			
In my bedroom	13	21	34 (44.2%)
At home, not in my bedroom	11	28	39 (50.6%)
At school	15	23	38 (49.4%)
Friend's house	12	21	33 (42.9%)
At the local library	3	4	7 (9.1%)
At a relative's house	12	17	29 (37.7%)

Appendix B-3. Continued.

	Male	Female	Total (%)
What do you use the internet for?			
Surfing the net	21	27	48 (62.3%)
Chat rooms	7	8	15 (19.5%)
To send/receive emails	12	23	35 (45.5%)
Social networking	19	36	55 (71.4%)
Instant messaging	7	18	25 (32.5%)
Schoolwork	11	28	39 (50.6%)
Downloading music, films, or programs	11	23	34 (44.2%)
Playing games	24	30	54 (70.1%)
Online shopping	8	14	22 (28.6%)

Appendix B-4.*Cyberbullying, Bullying and Victimization Frequencies*

	Yes n (%)	No n (%)
Cyberbullying		
Sent nasty text messages (making threats and comments)	9 (11.7%)	68 (88.3%)
“Happy Slapping” (pictures/videos recorded on a mobile phone)	5 (6.5%)	72 (93.5%)
Prank or silent phone calls	17 (22.1%)	60 (77.9%)
Sent rude or nasty emails	4 (5.2%)	73 (94.8%)
Insulted someone on a website (including Facebook, Myspace, etc.)	11 (14.3%)	66 (85.7%)
Insulted someone on Instant Messaging (MSN/AOL/Yahoo)	3 (3.9%)	74 (96.1%)
In a chat room	3 (3.9%)	74 (96.1%)
Bullying		
Punched, kicked or physically hurting another	8 (10.4%)	69 (89.5%)
Damaging/stealing belongings	4 (5.2%)	73 (94.8%)
Calling someone names	26 (33.8%)	51 (66.2%)
Teasing	22 (28.6%)	55 (71.4%)
Threatening	10 (13%)	67 (87%)
Leaving someone out or excluding them	22 (28.5%)	55 (71.4%)
Spreading rumors	13 (16.9%)	64 (83.1%)
Bullied someone because they had an illness or disability	3 (3.9%)	74 (96.1%)

Appendix B-4. Continued.

	Yes n (%)	No n (%)
Bullied someone because of their religion	2 (2.6%)	75 (97.4%)
Called someone gay even if it was not true	11 (14.3%)	66 (85.7%)
Cyberbully Victimization		
Through nasty text messages (making threats and comments)	20 (33.8%)	57 (66.2%)
“Happy Slapping” (pictures/videos recorded on a mobile phone)	7 (9.1%)	70(90.9%)
Prank or silent phone calls	17 (22.1%)	60 (77.9%)
Through rude or nasty emails	5 (6.5%)	72 (93.5%)
Insults on a website (including Facebook, Myspace, etc)	19 (24.7%)	58 (75.3%)
Insults on Instant Messaging (MSN/AOL/Yahoo)	6 (7.8%)	71 (92.2%)
In a chat room	4 (5.2%)	73 (94.8%)
Bully Victimization		
Punched, kicked or physically hurt	13 (16.9%)	64 (83.1%)
Damaged/stolen belongings	15 (19.5%)	62 (80.5%)
Called names	40 (51.9%)	37 (48.1%)
Teased	28 (36.4%)	49 (63.6%)
Threatened	16 (20.8%)	61 (79.2%)
Being left out or excluded	23 (29.9%)	54 (70.1%)

Appendix B-4. Continued.

	Yes n (%)	No n (%)
Had rumors spread about me	28 (36.4%)	49 (63.6%)
Bullied because of my race/color	8 (10.4%)	69 (89.6%)
Bullied because of an illness or disability	3 (3.9%)	74 (96.1%)
Bullied because of my religion	1 (1.3%)	76 (98.7%)
Being called gay even if it's not true	14 (18.2%)	63 (81.8%)

Appendix C-1

Non-significant findings for Hypothesis 1.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
What grade are you in? * BullyVictimYN	77	100.0%	0	0.0%	77	100.0%
What grade are you in? * CyberVictimYN	77	100.0%	0	0.0%	77	100.0%
What grade are you in? * BullyYN	77	100.0%	0	0.0%	77	100.0%
What grade are you in? * CyberbullyYN	77	100.0%	0	0.0%	77	100.0%

What grade are you in? * BullyVictimYN

Crosstab

			BullyVictimYN		Total
			.00	1.00	
7th	Count		7	16	23
	Expected Count		9.0	14.0	23.0
	% within What grade are you in?		30.4%	69.6%	100.0%
8th	Count		14	17	31
	Expected Count		12.1	18.9	31.0
	% within What grade are you in?		45.2%	54.8%	100.0%
9th	Count		9	14	23
	Expected Count		9.0	14.0	23.0
	% within What grade are you in?		39.1%	60.9%	100.0%
Total	Count		30	47	77
	Expected Count		30.0	47.0	77.0
	% within What grade are you in?		39.0%	61.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.204 ^a	2	.548
Likelihood Ratio	1.220	2	.543
Linear-by-Linear Association	.361	1	.548
N of Valid Cases	77		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.96.

What grade are you in? * CyberVictimYN

Crosstab

		CyberVictimYN		Total	
		.00	1.00		
What grade are you in?	7th	Count	16	7	23
		Expected Count	15.2	7.8	23.0
		% within What grade are you in?	69.6%	30.4%	100.0%
	8th	Count	23	8	31
		Expected Count	20.5	10.5	31.0
		% within What grade are you in?	74.2%	25.8%	100.0%
	9th	Count	12	11	23
		Expected Count	15.2	7.8	23.0
		% within What grade are you in?	52.2%	47.8%	100.0%
Total	Count	51	26	77	
	Expected Count	51.0	26.0	77.0	
	% within What grade are you in?	66.2%	33.8%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.025 ^a	2	.220
Likelihood Ratio	2.967	2	.227
Linear-by-Linear Association	1.535	1	.215
N of Valid Cases	77		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.77.

What grade are you in? * BullyYN

Crosstab

			BullyYN		Total
			.00	1.00	
What grade are you in?	7th	Count	9	14	23
		Expected Count	10.8	12.2	23.0
		% within What grade are you in?	39.1%	60.9%	100.0%
	8th	Count	16	15	31
		Expected Count	14.5	16.5	31.0
		% within What grade are you in?	51.6%	48.4%	100.0%
	9th	Count	11	12	23
		Expected Count	10.8	12.2	23.0
		% within What grade are you in?	47.8%	52.2%	100.0%
Total	Count	36	41	77	
	Expected Count	36.0	41.0	77.0	
	% within What grade are you in?	46.8%	53.2%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.842 ^a	2	.657
Likelihood Ratio	.847	2	.655
Linear-by-Linear Association	.345	1	.557
N of Valid Cases	77		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.75.

What grade are you in? * CyberbullyYN

Crosstab

			CyberbullyYN		Total
			.00	1.00	
What grade are you in?	7th	Count	17	6	23
		Expected Count	15.8	7.2	23.0
		% within What grade are you in?	73.9%	26.1%	100.0%
	8th	Count	22	9	31
		Expected Count	21.3	9.7	31.0
		% within What grade are you in?	71.0%	29.0%	100.0%
	9th	Count	14	9	23
		Expected Count	15.8	7.2	23.0
		% within What grade are you in?	60.9%	39.1%	100.0%
Total	Count	53	24	77	
	Expected Count	53.0	24.0	77.0	
	% within What grade are you in?	68.8%	31.2%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.022 ^a	2	.600
Likelihood Ratio	1.006	2	.605
Linear-by-Linear Association	.900	1	.343
N of Valid Cases	77		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.17.

Appendix C-2

Non-significant findings for Hypothesis 3

Group Statistics					
BullyVictimYN	Mean	Std. Deviation	Valid N (listwise)		
			Unweighted	Weighted	
.00	HelpMean	3.0316	1.00936	29	29.000
	SupportMean	3.6638	.81512	29	29.000
	PressureMean	2.6759	.96609	29	29.000
1.00	HelpMean	3.1489	1.00811	47	47.000
	SupportMean	3.7145	.74389	47	47.000
	PressureMean	2.6617	.61381	47	47.000
Total	HelpMean	3.1042	1.00348	76	76.000
	SupportMean	3.6952	.76685	76	76.000
	PressureMean	2.6671	.76130	76	76.000

Analysis 1

Summary of Canonical Discriminant Functions

Eigenvalues				
Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.003 ^a	100.0	100.0	.059

a. First 1 canonical discriminant functions were used in the analysis.

Wilks' Lambda				
Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.997	.253	3	.969

Standardized Canonical Discriminant**Function Coefficients**

	Function
	1
HelpMean	1.050
SupportMean	-.094
PressureMean	-.227

Structure Matrix

	Function
	1
HelpMean	.968
SupportMean	.547
PressureMean	-.154

Pooled within-groups correlations
between discriminating variables and
standardized canonical discriminant
functions

Variables ordered by absolute size of
correlation within function.

Functions at Group Centroids

BullyVictimYN	Function
	1
.00	-.074
1.00	.046

Unstandardized canonical discriminant
functions evaluated at group means

Classification Statistics**Classification Processing Summary**

Processed		77
Excluded	Missing or out-of-range group codes	0
	At least one missing discriminating variable	1
Used in Output		76

Prior Probabilities for Groups

BullyVictimYN	Prior	Cases Used in Analysis	
		Unweighted	Weighted
.00	.500	29	29.000
1.00	.500	47	47.000
Total	1.000	76	76.000

Classification Results^a

		BullyVictimYN	Predicted Group Membership		Total
			.00	1.00	
Original	Count	.00	16	13	29
		1.00	22	25	47
	%	.00	55.2	44.8	100.0
		1.00	46.8	53.2	100.0

a. 53.9% of original grouped cases correctly classified.

Group Statistics

CyberVictimYN		Mean	Std. Deviation	Valid N (listwise)	
				Unweighted	Weighted
.00	HelpMean	3.0725	1.04378	50	50.000
	SupportMean	3.6617	.81413	50	50.000
	PressureMean	2.6640	.86703	50	50.000
1.00	HelpMean	3.1651	.93790	26	26.000
	SupportMean	3.7596	.67714	26	26.000
	PressureMean	2.6731	.51502	26	26.000
Total	HelpMean	3.1042	1.00348	76	76.000
	SupportMean	3.6952	.76685	76	76.000
	PressureMean	2.6671	.76130	76	76.000

Analysis 1

Summary of Canonical Discriminant Functions

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.004 ^a	100.0	100.0	.062

a. First 1 canonical discriminant functions were used in the analysis.

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.996	.275	3	.965

Standardized Canonical Discriminant

Function Coefficients

	Function
	1
HelpMean	.108
SupportMean	.942
PressureMean	-.108

Structure Matrix

	Function
	1
SupportMean	.991
HelpMean	.715
PressureMean	.092

Pooled within-groups correlations
between discriminating variables and
standardized canonical discriminant
functions

Variables ordered by absolute size of
correlation within function.

Functions at Group Centroids

CyberVictimYN	Function
	1
.00	-.044
1.00	.084

Unstandardized canonical discriminant
functions evaluated at group means

Classification Statistics

Classification Processing Summary

Processed	77
Excluded	0
Missing or out-of-range group codes	
At least one missing discriminating variable	1
Used in Output	76

Prior Probabilities for Groups

CyberVictimYN	Prior	Cases Used in Analysis	
		Unweighted	Weighted
.00	.500	50	50.000
1.00	.500	26	26.000
Total	1.000	76	76.000

Classification Results^a

		CyberVictimYN	Predicted Group Membership		Total
			.00	1.00	
Original	Count	.00	20	30	50
		1.00	13	13	26
	%	.00	40.0	60.0	100.0
		1.00	50.0	50.0	100.0

a. 43.4% of original grouped cases correctly classified.

Group Statistics

BullyYN		Mean	Std. Deviation	Valid N (listwise)	
				Unweighted	Weighted
.00	HelpMean	3.1048	1.05324	35	35.000
	SupportMean	3.7738	.63354	35	35.000
	PressureMean	2.5914	.71471	35	35.000
1.00	HelpMean	3.1037	.97219	41	41.000
	SupportMean	3.6280	.86685	41	41.000
	PressureMean	2.7317	.80201	41	41.000
Total	HelpMean	3.1042	1.00348	76	76.000
	SupportMean	3.6952	.76685	76	76.000
	PressureMean	2.6671	.76130	76	76.000

Analysis 1

Summary of Canonical Discriminant Functions

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.031 ^a	100.0	100.0	.173

a. First 1 canonical discriminant functions were used in the analysis.

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.970	2.213	3	.529

Standardized Canonical Discriminant

Function Coefficients

	Function
	1
HelpMean	.692
SupportMean	-1.152
PressureMean	.712

Structure Matrix

	Function
	1
SupportMean	-.544
PressureMean	.527
HelpMean	-.003

Pooled within-groups correlations
between discriminating variables and
standardized canonical discriminant
functions
Variables ordered by absolute size of
correlation within function.

Functions at Group**Centroids**

BullyYN	Function
	1
.00	-.188
1.00	.160

Unstandardized canonical
discriminant functions
evaluated at group means

Classification Statistics**Classification Processing Summary**

Processed		77
Excluded	Missing or out-of-range group codes	0
	At least one missing discriminating variable	1
Used in Output		76

Prior Probabilities for Groups

BullyYN	Prior	Cases Used in Analysis	
		Unweighted	Weighted
.00	.500	35	35.000
1.00	.500	41	41.000
Total	1.000	76	76.000

Classification Results^a

		BullyYN	Predicted Group Membership		Total
			.00	1.00	
Original	Count	.00	21	14	35
		1.00	19	22	41
	%	.00	60.0	40.0	100.0
		1.00	46.3	53.7	100.0

a. 56.6% of original grouped cases correctly classified.

Group Statistics

CyberbullyYN		Mean	Std. Deviation	Valid N (listwise)	
				Unweighted	Weighted
.00	HelpMean	3.0609	1.07610	52	52.000
	SupportMean	3.6747	.85308	52	52.000
	PressureMean	2.6096	.81536	52	52.000
1.00	HelpMean	3.1979	.83814	24	24.000
	SupportMean	3.7396	.54856	24	24.000
	PressureMean	2.7917	.62618	24	24.000
Total	HelpMean	3.1042	1.00348	76	76.000
	SupportMean	3.6952	.76685	76	76.000
	PressureMean	2.6671	.76130	76	76.000

Analysis 1

Summary of Canonical Discriminant Functions

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.016 ^a	100.0	100.0	.127

a. First 1 canonical discriminant functions were used in the analysis.

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.984	1.173	3	.760

Standardized Canonical Discriminant

Function Coefficients

	Function
	1
HelpMean	.598
SupportMean	-.257
PressureMean	.885

Structure Matrix

	Function
	1
PressureMean	.882
HelpMean	.501
SupportMean	.310

Pooled within-groups correlations
between discriminating variables and
standardized canonical discriminant
functions
Variables ordered by absolute size of
correlation within function.

Functions at Group Centroids

CyberbullyYN	Function
	1
.00	-.086
1.00	.185

Unstandardized canonical

discriminant functions evaluated at

group means

Classification Statistics**Classification Processing Summary**

Processed		77
Excluded	Missing or out-of-range group codes	0
	At least one missing discriminating variable	1
Used in Output		76

Prior Probabilities for Groups

CyberbullyYN	Prior	Cases Used in Analysis	
		Unweighted	Weighted
.00	.500	52	52.000
1.00	.500	24	24.000
Total	1.000	76	76.000

Classification Results^a

		CyberbullyYN	Predicted Group Membership		Total
			.00	1.00	
Original	Count	.00	32	20	52
		1.00	11	13	24
	%	.00	61.5	38.5	100.0
		1.00	45.8	54.2	100.0

a. 59.2% of original grouped cases correctly classified.

Appendix D
PARENTAL CONSENT FORM

Dear Parent(s) or Guardian(s):

I am a doctoral student in the Psychology Department at the University of Tennessee and I am conducting research on all aspects of bullying and what can be done to eliminate it. With approval from the Director of Lenoir City Schools, I am investigating the amount and kind of bullying and/or cyber bullying among Lenoir City students, along with parental influence as perceived by the students, grades 7-9. This information will be compared with a school in South Korea.

Each student will be asked to fill out three short questionnaires online in the school's computer lab which will measure bullying behavior among peers and the degree of parental influence on their children. All information given by the students is totally anonymous.

 Please sign below giving your child consent to participate in the brief online questionnaires and have your child return this form to his first period teacher.

Name of student _____
 Parent's signature _____ Date _____

(Please see reverse side for more information regarding study)

For your information:

Once the questionnaire has been submitted it is anonymous. The questionnaires contain no identifying information for your child or for others. There are no questions that call for the naming of individual children who are bullies or victims. Neither the researchers nor the research assistants will use your child's name or any other identifying information in oral or written reports.

The school counselors will be informed of the study and will be available for students to talk to, that day or on additional days as needed. If you have questions at any time about this study or the procedures, please contact me, Michelle Black, at (phone 865-974-4138 email mkravitz@utk.edu) or my faculty advisor, Dr. Sherry Bain, at (phone: 865-974-2410 e-mail: sbain2@utk.edu). **If you have questions about your child's rights as a participant, contact the Office of Research Compliance Officer (University of Tennessee) at (865) 974-3466.**

Appendix E

VOLUNTARY ASSENT FORM FOR STUDENTS

In this research project I will answer online questions about face-to-face bullying, cyberbullying through texting, email, or social networks, and about the influence my parents had on me. If I choose to be in this project, I understand that the following things will take place:

I will spend approximately about 15 minutes in a classroom with other students who may or may not choose to take part in the project. Those of us who choose to take part will answer a series of questions. One section will be about each of our experiences with bullying and cyberbullying. The other section will be about the influence that my parents had on me. I am not expected to name anyone else who has been a bully or a victim. I will also be asked for my grade in school (e.g. 7th, 8th, or 9th), race, my gender, and my date of birth. My name will not be included on any survey or form.

The information I give about me will **not** be shared with anyone in my class or with my teachers, parents, or guardian. My identity will be unknown, and the information I give will not be linked to my name.

I understand that if I choose to participate, I will not be graded for anything that I do in this research project. If I choose to not participate, my grades or activities in school will not be affected.

Contacts: I understand that I may ask questions of the researcher who is in my classroom before I decide to participate. I also understand that if I have questions about the research at a later time, I may contact Michelle Kravitz at mkravitz@utk.edu or her faculty advisor, Dr. Bain at sbain2@utk.edu. Or, I can ask my teacher or parents to help me get in touch with Michelle Kravitz or Dr. Bain.

If I have questions about my rights as a participant, I can contact the Office of Research Compliance Officer (University of Tennessee) at (865) 974-3466.

If I feel that answering the questions for this project has made me feel uneasy, I will be able to tell one of the researchers or my teacher, and can see the school counselor if I wish.

Participation: I understand that I do not have to participate in this project if I do not want to. I can take a break if I need to. If I choose to stop in the middle of the questions, I will tell my teacher or one of the researchers and my incomplete questions will be deleted. If I do withdraw from the project, no bad things will happen to me.

When I move on to the questionnaire, I am showing my agreement to take part in this study.

Electronic Signature _____

Appendix F**Demographic Questionnaire****Name of School:****Gender: M / F****Grade:****Birth Month: Birth Year:****Ethnicity:**

Caucasian

African American

Hispanic

Asian/Pacific Islander

Native American

Other _____

General information about internet use**Q1. Have you ever used a computer?**

| Yes | No

Q2. Have you ever been online?

| Yes | No

Q3. How often do you use the internet?

| Do not use the internet

| Once a day

| Several times a day

| Once a week

| Several times a week

| Once a month

| Other (please state) _____

Q4. On average, how long do you spend on the internet per week?

- 0-5 hours
- 5-10 hours
- 10-15 hours
- 15-20 hours
- 20 or more hours

Q5. Where are you most likely to use the internet? (please tick all boxes that apply)

- I do not use the internet
- In my bedroom
- At home, not in my bedroom
- At school
- Friend's house
- Work
- At the local library
- Internet café
- At a relative's house
- Other (please state)_____

Q6. What activities do you use the internet for? (please tick all boxes that apply)

- I do not use the internet
- Surfing the Net
- Chat rooms
- To send/receive emails
- Instant Messaging i.e MSN Messenger/AOL/Yahoo
- Schoolwork
- Downloading music, films or programs
- Playing games
- Online shopping
- Other (please state)_____

Q7. How would you rate your ability to use computers?

- Have never used a computer
- Not very good
- Okay
- Excellent

Appendix G

Bullying & Cyberbullying

The following questions will ask about your experiences of bullying and/ or cyberbullying.

Definition of bullying:

Bullying is an action carried out by a group or individual that is repeated over time in order to hurt, threaten or frighten an individual with the intention to cause distress. It is different from other aggressive behavior because it involves an imbalance of power which leaves the victim defenseless.

Definition of cyberbullying:

Cyberbullying is a new form of bullying which involves the use of e-mail, instant messaging, chat rooms, websites, mobile phones or other forms of information technology to deliberately harass, threaten, or intimidate someone. Cyberbullying can include such acts as making threats, sending personal, racial or ethnic insults or repeatedly victimizing someone through electronic devices.

	Bullied <u>Not</u> including cyberbullied	Cyberbullied
1. Do you know of <u>anyone</u> who has been...	No Yes, inside school Yes, outside school Both inside and outside school	No Yes, inside school Yes, outside school Both inside and outside school
2. Have <u>you</u> ever been...	No Yes, inside school Yes, outside school Both inside and outside school	No Yes, inside school Yes, outside school Both inside and outside school

	Bullied	Cyberbullied
3. What types have you experienced?	<p>I have never been bullied</p> <p>Punched, kicked or physically hurt</p> <p>Damaged/stolen belongings</p> <p>Called names</p> <p>Teased</p> <p>Threatened</p> <p>Being left out or excluded</p> <p>Had rumors spread about me</p> <p>Because of my race/color</p> <p>Because of an illness or disability</p> <p>Because of my religion</p> <p>Being called gay even if it is not true</p> <p>Other (please state)</p> <hr/>	<p>I have never been cyberbullied</p> <p>Through nasty text messages (making threats and comments)</p> <p>'Happy slapping' (pictures/videos recorded on a mobile phone)</p> <p>Prank or silent phone calls</p> <p>Through rude or nasty emails</p> <p>Insults on a website</p> <p>Insults on Instant Messaging</p> <p>MSN</p> <p>Messenger/AOL/Yahoo</p> <p>In a chat room</p> <p>Other (please state)</p> <hr/>
4. How long ago did this <u>last</u> happen?	<p>Never</p> <p>Within the last week</p> <p>Within the last month</p> <p>This term</p> <p>Within the last school year</p> <p>Over one school year ago</p>	<p>Never</p> <p>Within the last week</p> <p>Within the last month</p> <p>This term</p> <p>Within the last school year</p> <p>Over one school year ago</p>
5. Did you tell anyone?	<p>I have never been bullied</p> <p>No, I was bullied but did not tell anyone</p> <p>Yes, I did tell someone</p>	<p>I have never been cyberbullied</p> <p>No, I was cyberbullied but did not tell anyone</p> <p>Yes, I did tell someone</p>
6. Have <u>you</u> ever taken part in...	<p>No</p> <p>Yes</p>	<p>No</p> <p>Yes</p>

<p>7. How long ago did this <u>last</u> happen?</p>	<p>Never Within the last week Within the last month This term Within the last school year Over one school year ago Other (please state)</p> <hr/>	<p>Never Within the last week Within the last month This term Within the last school year Over one school year ago Other (please state)</p> <hr/>
	<p>Bullying</p>	<p>Cyberbullying</p>
<p>8. What behavior have you taken part in?</p>	<p>I have never taken part in bullying Punching, kicking or physically hurting another Damaging/stealing belongings Calling someone names Teasing Threatening Leaving someone out or or excluding them Spreading rumors Bullied someone because of their race/color Bullied someone because they had an illness/ disability Bullied someone because of their religion Called someone gay even if it was not true Other (please state)</p> <hr/>	<p>I have never taken part in cyberbullying Sent nasty text messages (making threats and comments) 'Happy slapping' (pictures/videos recorded on a mobile phone Prank or silent phone calls Sent rude or nasty emails Insulted someone on a website Insulted someone on Instant Messaging ie MSN Messenger/AOL/Yahoo Insulted someone in a chat room Other (please state)</p> <hr/>

Appendix H

Inventory of Parental Influence

Part I AGREE/DISAGREE

Directions: Please circle the letter corresponding to your answer.

A Strongly Disagree	B Disagree Strongly	C Uncertain	D Agree	E Agree
1. My parents are never satisfied with my grades.				
2. I think I do well in school, but my parents feel I could do better.				
3. My parents do not feel I'm doing my best in school.				
4. I'm glad my parents are concerned about my education.				
5. My parents are satisfied if I do my best.				
6. My parents have much patience with me when it comes to my education.				
7. My parents expect too much of me.				
8. My parents pressure me too much with my homework.				
9. My parents are enthusiastic about my education.				
10. School would be more pleasant if my parents were not as strict.				
11. . My parents expect me to go to college				
12. When it comes to school, my parents expect the impossible.				
13. My parents take a big interest in my schoolwork.				
14. My parents are "pushy" when it comes to my education.				
15. I get along very well with my parents.				

- | | | | | | |
|--|---|---|---|---|---|
| 16. My parents are pleased only if I get 100% on tests. | A | B | C | D | E |
| 17. My parents are proud of me. | A | B | C | D | E |
| 18. I do well in school mostly because of my parents' help. | A | B | C | D | E |
| 19. I don't think I'm as smart as my parents think I am. | A | B | C | D | E |
| 20. I feel that children my age need their parents' guidance when it comes to school. | A | B | C | D | E |
| 21. My parents want me to go to a "good" college. | A | B | C | D | E |
| 22. I am basically lazy, and if it were not for my parents I would not be doing as well as I am in school. | A | B | C | D | E |

Part II FREQUENCIES

Directions: Please circle the letter corresponding to your answer.

A Never	B Rarely	C Sometimes	D Usually	E Always	
1. My parents like me to read right before I go			A B C D		
to sleep.			E		
2. My parents visit my school whenever they			A B C D		
are asked.			E		
3. My parents keep track of the amount of time			A B C D E		
I give to homework.					
4. My parents always wanted me to read a lot.			A B C D		
			E		
5. My parents encourage me to read books.			A B C D E		
6. My parents help me with my school reports.			A B C D E		
7. When I am sick or not in school, my parents			A B C D E		
tell me to telephone a friend to get the work.					
8. My parents set rules on the kinds of TV			A B C D E		
shows I can watch.					
9. My parents want me to bring home test			A B C D E		
papers to see how well I did.					
10. I am expected to do my homework at the			A B C D E		
same time each night.					
11. My parents buy books for presents.			A B C D E		
When I was in elementary school:					
12. My parents helped me with schoolwork I			A B C D E		
didn't understand.					
13. My parents helped me choose books to read.			A B C D E		
14. My parents checked my homework.			A B C D E		
15. My parents helped me study before a test.			A B C D E		
16. Before I left for school my mother asked me			A B C D E		
if I had everything I needed (homework,					
books, reports).					
17. My parents helped me with school reports.			A B C D E		

Vita

Michelle Pearl Black attended Longwood University in Farmville, VA, and received a Bachelor of Science degree. She worked during the summer at a residential treatment center for youth. She then received her Master of Science degree from Old Dominion University, while working with young children at an early education center. After working in a private practice psychiatric clinic, she entered the School Psychology Ph.D. program at the University of Tennessee.