E-Bullies: The Detrimental Effects of Cyberbullying on Students’ Life Satisfaction

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by

Meghan Elaine Hobbs

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Abstract

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Recently psychologists have begun studying a new phenomenon known as cyberbullying. However, as yet there is still very little research into the effects of cyberbullying for the students involved. The current study examined the correlation between cyberbullying and students’ life satisfaction. It was hypothesized that cyberbullying would be negatively correlated with students’ life satisfaction for the victims of cyberbullying, the cyberbullies, and the cyberbully-victims. Additionally, it was hypothesized that involvement in cyberbullying, as a victim, bully or bully-victim, would be more negatively correlated with life satisfaction than would involvement in traditional bullying, as a victim, bully, or bully-victim. Survey data was gathered from 398 elementary school students from southwestern Ohio. Students’ experiences with bullying were assessed using questions from the Olweus Bully/Victim Questionnaire, while questions from the Brief Multi-dimensional Students’ Life Satisfaction Scale were used to assess six domains of students’ life satisfaction. The results of the study indicated that being a cyberbully was significantly negatively correlated with global life satisfaction. Also, being a traditional bully was significantly negatively correlated with satisfaction with family life. Furthermore, cyberbullies and cyberbully-victims were found to have lower satisfaction with family life and school experience than were cybervictims or students who were not involved in cyberbullying. There were no other significant correlations found. The results from this study, along with previous cyberbullying research, suggest that cyberbullying is not as prevalent among elementary school students, as it is among middle school and high school students. Further research into effects of cyberbullying among middle school and high school students is necessary to ascertain if it would negatively affect life satisfaction for those students.
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Meghan Elaine Hobbs

Approved by:

_______________________________, Advisor
Paul Flaspholer, Ph.D.

_______________________________, Advisor
Cricket Meehan, Ph.D.

_______________________________, Reader
Jennifer Elfstrom, M.A.

Accepted by:

_______________________________, Director
University Honors Program
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Introduction

On October 16, 2006, 13-year-old Megan Meier was found hanging from her bedroom closet by her parents. Approximately 5 weeks prior to her suicide, a 16-year-old boy by the name of Josh Evans contacted Megan through her MySpace account and they began a friendship. Then on Sunday, Oct. 16, 2006, Josh began sending Megan harassing e-mails culminating in the message “Everybody in O'Fallon knows how you are. You are a bad person and everybody hates you. Have a shitty rest of your life. The world would be a better place without you.” Later Megan’s parents found out that Josh Evans was never real; rather he was created by an adult neighbor on their block, Lori Drew, in order to find out what Megan was saying on-line about her daughter. (Pokin, 2007).

Recent media attention, such as the much-publicized case described above, has brought the subject of electronic bullying to the forefront in recent years. With more than 87% of the internet users in American sending or receiving e-mails or instant messages every day, the internet has enabled an unprecedented level of communication, and has allowed people world-wide easy access to information and instant contact with one another (US Department of Commerce, 2003). Along with these benefits, however, comes the ease of utilizing the technology to engage in harmful behaviors. Students are now able to easily move from bullying on the playground to bullying on the internet and back again. This development has spawned a new field of study within psychology, aimed at understanding this new method of peer harassment (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2007; Agatston, Kowalski, & Limber, 2007; Li, 2006). The current study examines traditional bullying and cyberbullying, as well as their effects on students’ life satisfaction. Therefore, previous research on traditional bullying and
cyberbullying is necessary to ground the hypotheses of the current study. Also, previous research into life satisfaction and its outcomes will provide further basis for the goals of the current study.

**Bullying**

The topic of bullying can conjure visions of the tough kid on the playground who attacks the smaller kids, taunting and harassing them both verbally and physically. This iconic vision of traditional bullying falls into a well-defined category that has been a topic of study in psychology for more than thirty-five years. In 1978, traditional bullies were defined as, “children who consistently try to control peers through verbal or physical aggression to relieve their own feelings of inadequacy” (Elkind & Weiner, 1978). This definition was refined by Dan Olweus into one of the most commonly used definitions today, which places bullying in the context of the actions experienced, rather than people involved (either as “bullies” or “victims,” although for the sake of brevity the current study will refer to the students as such):

"A person is bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons, and he or she has difficulty defending himself or herself” (Olweus, 1993, p. 9).

This definition lays out the three main components of bullying. First bullying must involve some type of aggressive or hurtful behavior. Second, the bullying behavior is repeated over time. Actions are classified as bullying if they are repeated over and over, or if a variety of aggressive actions is perpetrated toward the same individual multiple times. Finally, bullying involves an imbalance in power. This imbalance of power can
mean that the bully is either physically, intellectually, or socially more powerful than the victim.

There are two main categories of bullying: direct, or physical, bullying; and indirect, or relational, bullying (Björkqvist, Lagerspetz, & Kaukiainen, 1992). Direct bullying, the most commonly identifiable form of bullying, consists of two types: physical bullying and direct verbal bullying. Physical bullying includes behaviors such as hitting, kicking, shoving, etc., while direct verbal bullying includes taunting, name-calling, degrading comments, and threatening (Kowalski, Limber, & Agatston, 2008).

Indirect bullying, however, is characterized by social isolation, spreading rumors, or any other type of bullying where the bully “attempts to hurt the [victim] without putting herself [or himself] in immediate physical danger (Björkqvist, 1994). The specific difference between physical and relational bullying is the proximity of the bully to the victim. As Ian Rivers and Peter Smith (1994, p. 360) clarify, “direct aggression refers to a face-to-face confrontation, whereas indirect aggression occurs via a third party (such indirect aggression is usually, though it need not necessarily be, verbal rather than physical in nature).”

Recent research into bullying has begun to look at its effects on all students involved. Specifically, researchers have studied how both physical and relational bullying affects factors such as the internalizing behaviors, social networks, and life satisfaction of bullies, victims, bully-victims (students who are both bullies and victims), and bystanders (students who are not bullied or victimized, but who witness bullying occurring) (Marini, Dane, Bosacki, & Ylc-Cura, 2006). Significant results of this
research demonstrate that both forms of bullying have marked detrimental effects on life satisfaction for bullies, victims, and bully-victims, and that this effect is most pronounced for bully-victims (Solberg, Olweus, & Endresen, 2007). Certain research has also indicated that students involved in relational bullying (particularly bully-victims) are especially susceptible to these detrimental effects (Marini, et al., 2006).

Cyberbullying

With the advent of the internet, relational bullying can now occur on-line as well as in person. This new form of bullying has been more thoroughly defined as:

“Cyberbullying involves the use of information and communication technologies such as email, cell phone and pager text messages, instant messaging, defamatory personal Web sites, and defamatory online personal polling Web sites, to support deliberate, repeated, and hostile behavior by an individual or group that is intended to harm others” (Li, 2005, p. 1779).

This definition allows for a broad array of hostile and aggressive behaviors to be designated under the term cyberbullying. The most common vehicles among students involved in cyberbullying are e-mails, chat rooms, instant messaging, social networking sites like Facebook and MySpace, blogs, on-line games such as Second Life, and cell phones, particularly text messages (Hinduja & Patchin, 2009).

Although technological mediums are used to engage in cyberbullying, many of the behaviors are similar to those of tradition forms of direct verbal and indirect bullying, such as spreading rumors, denigration, name-calling, exclusion, and threats. Certain behaviors, however, are unique to the cyber-environment. The most prevalent examples are flaming (sending hostile or angry messages intended to “inflame” the emotions of the bully’s intended victim), photoshopping, happy slapping or hopping
(engaging in some form of violence towards someone, filming it and posting it on the internet), and impersonation (Li, 2006).

As noted earlier, cyberbullying falls under the purview of relational bullying; however the intermediary of the technological device, most often the computer, allows it to be distinct from more traditional forms of bullying in several ways. First, while traditional bullying involves asymmetrical power relationships built around physical, intellectual or social strength, cyberbullying creates an environment where even a physically, intellectually, or socially weaker student could adopt a dominant power role. King (2006) acknowledges that “what makes cyberbullying so dangerous… is that anyone can practice it without having to confront the victim. You don’t have to be strong or fast, simply equipped with a cell phone or computer and a willingness to terrorize.” The anonymity, either real or perceived, that accompanies cyberbullying gives students who might otherwise not be in a powerful enough position to engage in bullying behavior the power to bully others. Students who are not strong or big enough to engage in physical bullying, or popular enough to engage in verbal or relational bullying, now have the means, and opportunity, and for victims of schoolyard bullying, motive, to bully others on-line. The internet gives victims a forum to adopt a dominant position relative to their tormentors, and certain researchers believe that often students who are bullied at school turn around and bully on-line (Ybarra et al., 2006).

The second way that cyberbullying differs from more traditional forms of bullying is that traditional bullying typically ends when the victim leaves the schoolyard, but cyberbullying can occur every time a student logs into the internet or picks up their
cell phone. This can give the schoolyard bullies another forum to torment their victims. As a recent study found, “the majority of the incidents occurred outside of the school day, with the exception of cyberbullying via text messaging” (Agatston, Kowalski, & Limber, 2007). Thus, going home at the end of the school day does not give victims a reprieve from rumors, name-calling, threats, or ostracism. In fact, research has demonstrated that students who are targets for traditional bullying are also more likely than non-victims to be victims of on-line harassment (Ybarra, Diener-West, & Leaf, 2007).

The many vehicles for cyberbullying and its omnipresent nature, as well as its relative novelty, beg the question of exactly how prevalent is cyberbullying? Prevalence research suggests that cyberbullying not only is a serious problem among youth today, but is also becoming more widespread each year. The earliest known study of cyberbullying, conducted between 1999 and 2000, found that 4 percent of students had been cyberbullied, 12 percent had engaged in cyberbullying, and 3 percent had both engaged in and been the victim of cyberbullying (Ybarra & Mitchell, 2004). A more recent study conducted by Patchin and Hinduja (2006) found that nearly 30 percent of students had been bullied on-line and that 11 percent had engaged in on-line bullying. In fact, a the results of a meta-analysis of recent cyberbullying prevalence research conducted by Hinduja and Patchin shows that not only has cyberbullying become a significant problem among youth today, it is a problem which is continuing to grow (See Figure 1).
As shown above, recent research suggests that cyberbullying is prevalent among students and is becoming more so every day. This is problematic because of the harmful nature of cyberbullying itself. A few recent studies focusing on the effects of cyberbullying have shown that students who were victims of cyberbullying had feelings of frustration, anger, anxiety, and sadness as a result of their on-line victimization (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2007). These emotional responses are comparable to those found in research regarding traditional bullying (Cowie & Berdondini, 2002; Kowalski & Limber, 2006). Both victims of cyberbullying and cyberbully-victims have also shown higher social anxiety, and lower self-esteem than either bullies or students not involved in cyberbullying, again consistent with findings in traditional bullying research (Craig, 1998; Kowalski & Limber, 2007; Ybarra & Mitchell, 2004). In addition to psychological disturbance, higher levels of externalizing behaviors, such as alcohol use and drug use, have also been shown among students involved in cyberbullying. This pattern is especially pronounced among the victims and bully-victims of the on-line harassment (Ybarra et al., 2007). Moreover, this effect is consistent with the findings from research into traditional bullying as well (Nansel et al., 2001). These preliminary findings from research examining cyberbullying show that the effects of cyberbullying mirror the effects of traditional bullying. Thus, it is likely that cyberbullying will have a negative effect on life satisfaction, in much the same way that traditional bullying has shown a marked negative effect on life satisfaction (Flouri & Buchanan, 2002; Karatzias, Power, & Swanson, 2001).

*Life Satisfaction*
Life satisfaction has been shown to affect psychological and behavioral adjustment. Specifically, high life satisfaction is significantly positively correlated with academic achievement, interpersonal functioning, intrapersonal functioning, and physical well-being (Gilman & Huebner, 2006; Strine et al., 2008). Additionally, life satisfaction is negatively correlated with internalizing behaviors, intrapersonal stress, smoking, physical inactivity, heavy drinking, and drug use (Gilman & Huebner, 2006; McKnight, Huebner, & Suldo, 2002; Strine et al., 2008).

Current Study/ Hypotheses

Despite the quickly growing presence of cyberbullying and its demonstrated negative impacts on factors such as self-esteem, anxiety, and drug and alcohol use and the coinciding negative effects on life satisfaction, there is a surprising lack of research examining the relationship between cyberbullying and life satisfaction. To address this void, the current study examines the relationship between cyberbullying and life satisfaction among elementary school students. Current research into cyberbullying has focused on cyberbullying among middle school and high school students, neglecting to include the experiences of elementary school students (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004; Willard, 2006; Kowalski, Limber, & Agatston, 2008; Li, 2005). It is hypothesized that involvement in cyberbullying will be negatively correlated with life satisfaction in the same way that traditional bullying has been shown to be negatively correlated with life satisfaction. It is believed that involvement in cyberbullying will negatively affect life satisfaction for both bullies and victims, as seen in traditional bullying, and that bully-victims will be the most negatively affected (Solberg, Olweus,
& Endresen, 2007; Marini, et al., 2006). It is also hypothesized that the method of transmission (cell phone, e-mail, AIM, etc) will have a moderating effect on the correlation between involvement in cyberbullying and life satisfaction. Other researchers have postulated that, due to the pervasive nature of cyberbullying, involvement in cyberbullying will have a more deleterious effect on life satisfaction than would involvement in traditional bullying (Willard, 2006; Kowalski et al., 2008; Ybarra & Mitchell, 2004). Finally, it is hypothesized that students involved in cyberbullying will demonstrate lower life satisfaction than students involved only in traditional bullying, and students who are involved in both cyberbullying and traditional bullying will experience the lowest levels of life satisfaction. The current study is the first known empirical investigation of the effects of cyberbullying on life satisfaction.

Methods

Participants:

Participants consisted of 398 third, fourth, and fifth grade students from two elementary schools in southwestern Ohio, with 197 students drawn from one elementary school and 201 students from the other elementary school (See Table 1). Ages of these students ranged from 8 to 12 with a mean age of 9.32 ($SD = 1.02$). Forty-five percent of the participants were female ($N = 174$) and fifty-five percent of the participants were males ($N = 216$), with 8 participants who did not indicate their gender. Of these participants, 120 males and 76 females were drawn from the first elementary school, while 96 males and 98 females were drawn from the second elementary school.
The participants’ schools have implemented the Olweus Bully Prevention Program in their buildings. To check the program’s effectiveness, each school’s Technical Assistant assisted teachers in administering the Olweus Bullying Questionnaire to students in grades three through five. The results of those surveys were used for the purposes of the current study. In addition, each school was provided a summary report to assist them in their implementation of the Olweus Bullying Prevention Program. Prior to the administration of the surveys to the students, parental consent forms were obtained (See Figure 2). In addition to the parental consent forms, the students completed assent forms, confirming that they understood that the study was completely voluntary, that they could stop at any time, and that all of their answers were completely anonymous (See Figure 3).

**Materials:**

The surveys were conducted using pencil-and-paper tests, which included questions assessing students’ experiences with bullying and their ratings of life satisfaction. Items from the Olweus Bullying Questionnaire (Olweus, 1996) were used to assess students’ experiences with bullying (See Figure 5). The Olweus Bullying Questionnaire has adequate reliability and validity, as demonstrated in previous test using representative samples of more than 5,000 students (Olweus, 2001).

Two questions from the Olweus Bullying Questionnaire assess students’ experiences with traditional bullying, “How often have you been bullied at school in the past couple of months?” and “How often have you taken part in bullying another student at school in the past couple of months?” The students’ response options were “I
haven’t…in the past couple of months,” “it has only happened once or twice,” “2 or 3 times a month,” “about once a week,” or “several times a week.”

Two questions from the Olweus Bullying Questionnaire assess students’ experiences with cyberbullying, “I was bullied with mean or hurtful messages, calls, or pictures, or in other ways on my cell phone or over the Internet (computer),” and “I bullied [someone] with mean or hurtful messages, calls, or pictures, or in other ways on his or her cell phone or over the Internet (computer).” Students’ response options were “it hasn’t happened in the past couple of months,” “it has only happened once or twice,” “2 or 3 times a month,” “about once a week,” or “several times a week.”

In addition to these questions, students identified the method of transmission for the cyberbullying behavior through the questions “if you were bullied on your cell phone or over the Internet, how was it done (select all that apply),” and “if you bullied [someone] on his or her cell phone or over the Internet, how was it done (select all that apply).” The students were then given the options of “cell phone call,” “text message on his or her cell phone,” “e-mail,” “chat room,” “instant messaging,” and “other.” Students also identified the method of transmission for the traditional bullying behavior through the question “have you been bullied at school in the past couple months in one or more of the following ways?” The students indicated if they’d been: called mean names, made fun of, or teased in a hurtful way; left out of things on purpose, excluded; hit, kicked, pushed, or shoved around; had lies or false rumors spread about me; had money or other things taken away from me; threatened or forced to do things I did not want to do; bullied with mean names or comments about my race or color; bullied with mean names,
comments, gestures with a sexual meaning. Students then selected all of the applicable options.

The Brief Multi-dimensional Students’ Life Satisfaction Scale was used to assess life satisfaction (BMSLSS; Seligson, Huebner, & Valois, 2003) (See Figure 6). This six question scale measures satisfaction with family, friendships, school experience, self, residence, as well as global life satisfaction, asking questions like “I would describe my satisfaction with my family life as” and “I would describe my satisfaction with my overall life as.” Students were then given seven possible responses for each question, including “terrible,” “unhappy,” “mostly dissatisfied,” “mixed: (equally satisfied & dissatisfied),” “mostly satisfied,” “pleased,” and “delighted.” The BMSLSS has shown to be valid for both older students (Seligson, Huebner, & Valois, 2003) and elementary school students (Seligson, Huebner, & Valois, 2005).

Procedure:

Surveys were administered by school staff to individual classrooms. The instructions (See Figure 4) and survey questions were read aloud by the administering staff to all of the participating third through fifth grade students. Students answered the questions independently, and their answers were kept anonymous. All survey materials, including paper surveys and electronic databases of responses, have been stored in a manner consistent with APA’s ethical guidelines.

Students were classified into several categories in preparation for analysis. Students were classified as victims of traditional bullying if their answer to the question of how often they had been bullied was “2 or 3 times a month,” “about once a week,” or
“several times a week.” If the student’s response to the question of how often they had bullied another student was “2 or 3 times a month,” “about once a week,” or “several times a week,” the student was classified as a traditional bully. Students indicating experiences as both bullies and victims were classified as traditional bully-victims, and those who did not experience bullying were considered neither bullies nor victims. This process was repeated for cyberbullying as well. Students who responded “2 or 3 times a month,” about once a week,” or “several times a week” to the question of how often they had been bullied on a cell phone or over the Internet were classified as victims of cyberbullying, and students who responded “2 or 3 times a month,” about once a week,” or “several times a week” to the question of how often they had bullied someone else on a cell phone or over the Internet were classified as cyberbullies. Students who responded “2 or 3 times a month,” about once a week,” or “several times a week” for both questions were classified as cyberbully-victims, and those who did not experience any cyberbullying were classified as neither cyberbullies nor victims of cyberbully. Both Pearson’s Correlations and MANOVA (with Post Hoc) analyses were used in analyzing the data.

Results

Among the students in grade three \((M = 1.12, SD = .45, N = 146)\), 8.3% were involved in cyberbullying as a bully, victim or bully-victim. Among the students in grade four \((M = 1.27, SD = .28, N = 133)\), 17.3% were involved in cyberbullying as a bully, victim, or bully-victim. Among the students in grade five \((M = 1.08, SD = .28, N = 118)\), 10 percent were involved in cyberbullying (See Table 2). Among students in grade three
\(M = 1.12, SD = .45, N = 146\), 57.4% were involved in traditional bullying as a bully, victim or bully-victim. Among the students in grade four \((M = 1.27, SD = .28, N = 133)\), 63.2% were involved in traditional bullying as a bully, victim, or bully-victim. Among the students in grade five \((M = 1.08, SD = .28, N = 118)\), 50.1% were involved in traditional bullying as a bully, victim, or bully-victim (See Table 3).

Victims of Cyberbullying

To test the hypothesis that being a victim of cyberbullying would be negatively correlated with life satisfaction, several correlational analyses were performed. Analyses were run correlating being a victim of cyberbullying with six domains of life satisfaction, namely satisfaction with family life, satisfaction with friendships, satisfaction with school experience, satisfaction with self, satisfaction with residence, and global life satisfaction. Being a victim of cyberbullying was not found to be significantly correlated with satisfaction with family life, satisfaction with friendships, satisfaction with school experience, satisfaction with self, satisfaction with residence, or global life satisfaction. There were no significantly correlations found between being a victim of cyberbullying and any of the six domains of life satisfaction.

Correlations were also run between being a victim of cyberbullying and the six domains of life satisfaction using method of transmission (e-mail, cell phone, etc.) as a moderator. Accounting for method of transmission, being a victim of cyberbullying was not found to be significantly correlated with satisfaction with family life, satisfaction with friendships, satisfaction with school experiences, satisfaction with self, satisfaction with residence, or global life satisfaction. The method of transmission was not found to
significantly impact the relationship between being a *victim of cyberbullying* and the six domains of life satisfaction.

*Cyberbullies*

Correlational analyses were also run to test the hypothesis that being a cyberbully would be negatively correlated with life satisfaction. As with the victims of cyberbullying, correlational tests were run between being a *cyberbully* and six domains of life satisfaction: satisfaction with family life, satisfaction with friendships, satisfaction with school experience, satisfaction with self, satisfaction with residence, and global life satisfaction. Being a *cyberbully* ($M = 1.07, SD = .41, N = 325$) was found to be significantly negatively correlated with global life satisfaction ($M = 5.97, SD = 1.50, N = 361$) at the .05 alpha level ($r(314) = -.138, p = .014$). Being a *cyberbully* was not found to be significantly correlated with satisfaction with family life, satisfaction with friendships, satisfaction with school, satisfaction with the self, or satisfaction with residence. Being a *cyberbully* was found to be negatively correlated with global life satisfaction, but was not significantly correlated with any of the other five domains of life satisfaction (See Table 4).

Correlational analyses were also run between being a *cyberbully* and the six domains of life satisfaction using method of transmission as a moderator. Accounting for method of transmission, being a *cyberbully* was not found to be significantly correlated with satisfaction with family life, satisfaction with friendships, satisfaction with school experiences, satisfaction with self, satisfaction with residence, or global life satisfaction.
No significant correlations were found between being a cyberbully and any of the six domains of life satisfaction when using the method of transmission as a moderator.

**Cyberbullying Status**

For the final analyses, participants were categorized into four groups: students who neither cyberbullied nor were victims of cyberbullying, students who only engaged in cyberbullying, students who were only victims of cyberbullying, and students who both cyberbullied and were victims of cyberbullying (designated as cyberbully-victims). Univariate analyses were conducted with students’ status in the four cyberbullying groups as the independent variable and the six domains of life satisfaction (analyses run individually for each) as the dependent variable(s). Significant results were found between cyberbullying status and satisfaction with family life \( (F(3, 355) = 2.67, p < .05) \) (See Table 5) and satisfaction with school experience \( (F(3, 357) = 3.30, p < .05) \) (See Table 6). Despite the significant between subjects difference, post hoc analyses did not reveal significant differences among group comparisons. There were no significant between subjects effects found between membership in any of the four cyberbullying categories and satisfaction with friendships, satisfaction with self, satisfaction with residence, or global life satisfaction.

**Traditional Bullying Status**

For the analysis of traditional bullying, participants were categorized into four groups: students who neither engaged in traditional bullying nor were victims of traditional bullying (designated as not involved), students who only engaged in traditional bullying, students who were only victims of traditional bullying, and students...
who both engaged in traditional bullying and were victims of traditional bullying (designated as bully-victims). Univariate analyses were conducted with students’ status in the four traditional bullying groups as the independent variable and each of the six life satisfaction factors (analyses run individually for each) as the dependent variable(s).

Significant results were found between traditional bullying status and satisfaction with family life \((F(3, 393) = 3.83, p < .05)\) (See Table 7) and satisfaction with school experience \((F(3, 357) = 7.69, p < .01)\) (See Table 8). Specifically, being a traditional bully-victim \((M = 5.52, SD = 1.49, N = 44)\) was associated with lower levels of satisfaction with family life compared to the students who were not involved in bullying \((M = 6.23, SD = 1.27, N = 152)\) (See Table 9). Being a traditional bully-victim \((M = 4.87, SD = 2.01, N = 45)\) was also associated with lower levels of satisfaction with school experience compared to students who were not involved in bullying \((M = 5.73, SD = 1.51, N = 152)\) (See Table 10). Being a traditional bully \((M = 3.79, SD = 2.08, N = 14)\) was associated with lower levels of satisfaction with school experience compared to the students who were not involved in bullying \((M = 6.23, SD = 1.27, N = 152)\) and students who were victims of bullying \((M = 5.26, SD = 1.79, N = 150)\) (See Table 10).

There were no significant between subjects effects found between membership in any of the four cyberbullying categories and satisfaction with friendships, satisfaction with self, satisfaction with residence, or global life satisfaction.

A correlational analysis was also conducted with the traditional bullying status \((M = 1.84, SD = .96, N = 398)\) and the cyberbullying status \((M = 1.16, SD = .51, N = 398)\). This analysis showed a significant positive correlation at the .05 alpha level.
between the two variables \( r(398) = .31, p < .01 \). One’s status within a traditional bullying context was significantly positively correlated with one’s status with a cyberbullying context (See Table 11).

Discussion/Conclusion

Descriptive statistics were conducted to test the hypothesis that involvement in cyberbullying would be evident as early as the third grade, and that cyberbullying would increase as the grade levels of the students increased. Very few students surveyed reported involvement in cyberbullying, indicating that cyberbullying is not as large a problem among elementary school students as initially predicted. There seemed to be a slight increase in students involved in cyberbullying between third grade and fourth grade, but this dropped back among the fifth graders, so it is still unclear whether cyberbullying begins to increase at the end of elementary school. Although traditional bullying is the most prevalent form of bullying among elementary students, the results show that awareness of cyberbullying is evident among this elementary age group. Of those that reported experiences with cyberbullying, fifty percent of the students who were cyberbullies had also been victims of cyberbullying themselves. It seems that in the on-line setting, 50% of students are both engaging in cyberbullying and being victims of cyberbullying; whereas only about 4% of students are both engaging in traditional bullying and being victims of traditional bullying (Elfstrom, 2007).

The results of the correlational analyses were not consistent with the initial hypotheses about the effects of cyberbullying on students’ life satisfaction. While it was predicted that cyberbullying would negatively affect students’ life satisfaction, the only
significant finding was a negative correlation between engaging in cyberbullying behavior and global life satisfaction. Cyberbullying experiences were not significantly correlated with life satisfaction for any of the life satisfaction domains tested: family life, friendships, school experience, self, location, or global life satisfaction. When controlling for the vehicle for the bullying behavior (for example, cell phone or e-mail), no significant results emerged between cyberbullies, cybervictims, and life satisfaction. It appears from this current study that the method for transmitting the bullying messages does not have a marked effect on the victim’s reception.

Univariate analyses accounting for cyberbullying status (bully, victim, bully-victim, or not involved), found a significant main effect between cyberbullying status and satisfaction with family life and school experience. Post hoc analyses were unable to determine any specific between-subjects effects, however. No significant results were found between cyberbullying status and any of the other four life satisfaction domains: satisfaction with friendships, satisfaction with self, satisfaction with residence, or global life satisfaction. While these findings did confirm the hypothesis that cyberbullying would negatively affect life satisfaction for involved students, this did not confirm the hypothesis that this effect would be most prominent for cyberbully-victims.

Univariate analyses comparing the traditional bullying status variable (bully, victim, bully-victim, or not involved) and satisfaction with family life also found a main effect. Post hoc analyses determined that traditional bully-victims had a lower satisfaction with family life than did students who were not involved in traditional bullying. Additionally, there was a main effect found between traditional bullying status
and satisfaction with school experience. Post hoc analyses found two separate effects. Traditional bullies showed significantly lower satisfaction with school experience than students who were not involved in traditional bullying and students who were victims of traditional bullying. Also, traditional bully-victims showed lower satisfaction with school experience than did students who were not involved in traditional bullying. These findings partially confirmed the hypotheses that involvement in traditional bullying would have a negative effect on students’ life satisfaction, and that traditional bully-victims would show lower life satisfaction than the other three groups. The findings that traditional bully-victims had lower satisfaction with family life and school experience than students who were not involved in traditional bullying confirmed these hypotheses. It was surprising, however, that traditional bullies showed lower satisfaction with school experience than did their victims.

Bully status and cyberbully status were positively correlated, indicating that the more likely a student is to be bullied in a traditional forum, the more likely he/she is to be bullied on-line. The status a student has in a traditional bullying context is likely to be the status they have in a cyber-environment as well.

Among the 398 students in the current study, only 33 students had ever been cyberbullied, only 12 had engaged in cyberbullying, and only 6 had both been cyberbullied and had cyberbullied someone else. This, again, indicates that cyberbullying is a rarer problem among elementary school students than middle school or high school students. Previous cyberbullying research has focused on middle school and high school students, possibly resulting in much higher prevalence rates than the
current study has found (Smith, Mahdavi, Carvalho, & Tippet, 2006; Ybarra & Mitchell, 2004; Patchin & Hinduja, 2006; Kowalski & Limber, 2006; Agatston, Kowalski, & Limber, 2007; Kowalski, Limber, & Agatston, 2008; Li, 2005). Research into traditional forms of bullying has indicated that relational forms of bullying, such as rumor spreading and certain types of name calling are not as prevalent until students are older, typically middle school-aged, when their socio-emotional development has reached the point to where the students’ can successfully use these types of bullying (Björqvist, Lagerspetz, & Kaukiainen, 1992; Björqvist, 1994; Rivers & Smith, 1994). Because cyberbully is a type of relational bullying as opposed to physical bullying, it makes sense that cyberbullying would not become highly prevalent until the students’ were older.

Interestingly enough, the results of current study were also contrary to the, admittedly, very little research about the effects of cyberbullying. Previous research has shown that victims of cyberbullying tend to show more negative impacts from the exchange than the bully, reporting feelings such as depression, anger, stress, sadness, low self-esteem, alienation, and suicidal ideation (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004, Willard, 2006). In the current study, however, there was no significant correlation between any of the life satisfaction categories, which included satisfaction with self, friendship, and school experience, among others. Again, it is possible that in elementary school face-to-face bullying has a much more significant impact than it does on-line, or it is possible that the small number of students who were victims of cyberbullying were for whatever internal reasons not seriously affected by it. Also, it is
possible that the life satisfaction questions asked in the current study did not specifically address feelings of depression, anger, or stress, and thus did not capture certain possible effects of cyberbullying.

Although previous studies have shown mixed results, the cyberbullies in the current study appear to have been negatively affected by their engagement in cyberbullying. Previous research suggests that, while some cyberbullies are negatively impacted by their experience, many of the cyberbullies feel positive about their actions, thinking they were funny or that the victim somehow deserved the harassment (Patchin & Hinduja, 2006; Kowalski, Limber, & Agatson, 2008). The large percentage of cyberbullies who were also found to be victims in the current study might account for some of this discrepancy, however. It is possible that students who are strictly cyberbullies would demonstrate lower life satisfaction due to guilt or remorse over their actions, and that the students who are both cyberbullies and victims feel as though they are exacting revenge on their own tormentors who “deserved it.”

It was also interesting that with this particular sample of students, even students who were victims in the traditional context did not show marked lower life satisfaction. Much of the previous research about traditional bullying has shown that bullies, victims, and bully-victims all had decreased satisfaction with some of the six life satisfaction domains. In the current study, only bullies and bully-victims demonstrated significant decreases, and even then they only showed decreases in the domains of satisfaction with family life and satisfaction with school experience. Particularly interesting was the
finding that engagement in traditional bullying was more negatively correlated with satisfaction with school experience than being a victim of that bullying.

Finally, because none of the previous studies focused on the method of transmission in regards to cyberbullying, it is as yet unknown whether or not the results of the current study (that the method of transmission is irrelevant) can be verified. It is possible that cyberbullying either through e-mail or cell phone results in the same overall effects, but it is also possible that the results of this study give weaker correlations using these moderating variables than studies using older students would provide.

**Limitations**

This study has several limitations that may have had an effect on the results. The first limitation was the sample size. As discussed previously, out of the nearly 400 students surveyed only 45 students had been involved in cyberbullying at all with 33 victims, 12 bullies, and 6 students who fell into both groups. Statistical power was reduced given this sample size of students who were affected by cyberbullying, possibly leading to spurious results. Even when significant main effects were found (as with the ANOVAs run between cyberbullying status and satisfaction with family life or school experience), there were far too many students in the *not involved* category (*N* = 319) to accurately compare the relatively few students who fell into the categories of *cyberbully* (*N* = 30), *cybervictim* (*N* = 5), or *cyberbully-victim* (*N* = 5).

Additionally, the participants were from only two schools. Since schools have been shown to have climates that encourage or discourage certain types of behavior, it is
possible that these two schools in the same area have a very similar school climate, one that does not for whatever reason encourage cyberbullying (Leff et al., 2003). Thus it is possible that other elementary schools in other areas with different climates might be more likely to cite cyberbullying as a major problem for their students.

The age of the students, while intentional, could also have been a limitation to the study (See Table 2). If cyberbullying is not a large problem in elementary school, it would become difficult to get an accurate picture of the effects of cyberbullying using only elementary school participants. The relatively young age of the participants could also be a limitation to the correlation between the moderating effects of method of transmission, as well. According to the United States Census, while access to electronic communication, particularly the Internet, among elementary school students has risen in the past few years from 7.2% in 1997 to roughly 28% in 2003 (US Department of Commerce, 2003), this still represents a relatively small percentage of students with access to the Internet. Also, parents are more likely to closely monitor younger students’ use of these devices, thus curtailing possible bullying activities and possibly leading to the insignificant results. It is possible that these devices would show a more significant moderating effect among middle school and high school students who tend to use these electronic devices more frequently: 33.2% in 1997 with an increase to 69% in 2003 (US Department of Commerce, 2003). Middle school and high school students might also use these devices with less parental monitoring than elementary school as well, making cyberbullying a higher possibility and the moderating affect more pronounced.
A third possible limitation could be fatigue. The survey administered was very long, including 109 questions on bullying, cyberbullying, life satisfaction, locus of control, school climate, etc. Elementary students may have gotten bored or tired during the course of the survey, leading to hurried or blank responses.

Further Directions

With a field of study as young as cyberbullying there are a myriad of different empirical directions possible. The first logical future direction is replication of the current study using participants from middle and high schools. Since all of the previous cyberbullying research has focused on these age groups and has found a significantly larger percentage of students who were affected by cyberbullying, it is logical to postulate that this age group is the most likely to demonstrate lower life satisfaction in conjunction with cyberbullying. A similar study correlating cyberbullying and life satisfaction, but drawing a much wider variety of participants from a wider variety of geographical areas and age groups would also help to further the current knowledge base. Additionally, a replication of the current study with a larger sample of elementary school students should be conducted to verify the results of the current study. It is possible that cyberbullying does have an effect on elementary school students’ life satisfaction, but the current study’s sample was too small to accurately capture that effect.

Similarly, promising future directions could include studies that examine other possible outcomes of cyberbullying. Again, much of the previous research has indicated that cyberbullying is related to many of the same outcomes as traditional forms of
bullying, but more targeted research is needed to verify and expand the knowledge about these relationships (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004, Willard, 2006). Some possible directions could include relating cyberbullying with other traditional bullying outcomes such as poor academic achievement, aggression, and suicidal ideation (Haynie et al., 2001; Kochenderfer & Ladd, 1996; Rigby & Slee, 1999).

Traditional bullying research has also shown a focus on an asymmetric power relationship, with the bully being stronger either physically or socially than the victim (Olweus, 1994; Karatzias, Power, & Swanson, 2001; Nansel et. al, 2001). However, cyberbullying does not necessarily encompass a power differential in the same way as traditional bullying. Since the harassment does not occur in a face-to-face context, the physical strength of the bully is irrelevant, making it possible for a weaker person to use electronic forms of bullying as opposed to more traditional forms. Additionally, the possibility that on-line harassment can take place with relative anonymity might allow a socially weaker student to engage in bullying in a cyber-environment even if they would not be able to do so in a tradition forum. Thus, it is possible that in the cyber-environment anonymity and ease of mass communication might be the facilitators of the power differential. Studies contrasting power differentials in a cyberbullying context and power differentials in a traditional bullying context would help to answer this question.

It would also be necessary to study the effects of optional anonymity of the cyber-environment on cyberbullying prevalence rates and the types of people who cyberbully. Perhaps students who are not physically or socially powerful would be able to use the alternate power sources available on the internet to bullying others. Finally, again, these
factors in cyberbullying should be studied in relation to outcomes for the bullies, the victims, and the bully-victims.

As postulated previously, it is possible that students who cyberbully have shown lower life satisfaction than victims or bully-victims, and that this could be related to feelings of guilt regarding their behavior, while bully-victims could feel like they were evening the score and thus do not show the expected drop in life satisfaction ratings. This is one possible explanation for the results of both the current study and the previous studies mentioned before, but there is as yet no empirical data examining this hypothesis (Patchin & Hinduja, 2006; Kowalski, Limber, & Agatson, 2008). So, another promising further direction could look at students’ motivations in regards to cyberbullying, and that relationship to cyberbullying outcomes.

Another direction that could be highly significant would be examining cyberbullying and its outcomes while controlling for a variety of moderating variables. In the current study the method of transmission did not show any significant moderating effects, but again the sample size was very small and the participants were part of a younger group than has been studied in the past. Taking these two factors into account, a study of these moderating variables conducted using middle school and high school age participants is necessary to establish or discount any connection. Another possibly significant moderating variable which would be important to study is the type of cyberbullying and its effects. Many cyberbullying behaviors reported have been similar to those of tradition bullying, such as spreading rumors, denigration, name-calling, exclusion, and threats. Mostly likely these behaviors will have similar effects to those of
traditional bullying. Several behaviors have been found that are unique to the cyber-environment, however, and these would be important to study. The most prevalent examples of these behaviors are flaming (sending hostile or angry messages intended to “inflame” the emotions of the bully’s intended victim), photoshopping (using photo alteration programs such as Photoshop to alter pictures of people with the intent to hurt or humiliate them), happy slapping or hopping (engaging in some form of violence towards someone, filming it and posting it on the internet), and impersonation (posing as someone close to an intended victim, and engaging in denigration, rumor spreading, or other harmful, aggressive behavior) (Li, 2006; Hinduja & Patchin, 2009; Kowalski, Limber, & Agatston, 2008; Willard, 2007). Since these behaviors are relatively new, and are unique to the cyber-environment, it is possible that they have different outcomes or a different magnitude of the same outcomes as some of the more tradition bullying behaviors. A study targeted to these behaviors would be necessary to discover if they have any significant or unique outcomes.

Finally, it is important to study the relationship between traditional bullying and cyberbullying. The current study found that the two are highly positively correlated, but a more directed study is needed to tease out the intricacies of that relationship. Do students really stay in the same role when moving from the traditional bullying context to a cyber context? It is possible that these roles do not change very much from traditional to cyberbully. However, it is also possible that students who are not traditional bullies, due to fear of a face-to-face interaction or a lack of physical or social power for example, could use the medium of the computer to change their status on-line.
Conclusions

Cyberbullying has been very prevalent in the media lately, and has been shown by a variety of studies to be an increasing problem among students today (Smith, Mahdavi, Carvalho, & Tippet, 2006; Aftab, 2005; Willard, 2006; Li, 2005). However, very few empirical psychological studies have been conducted regarding the outcomes of this phenomenon (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004; Kowalski, Limber, & Agatston, 2008). The current study has shown that cyberbullying does not seem to be a significant problem for elementary school students. Accounting for the results of previous studies, it is likely that this form of bullying becomes a much more prevalent problem at the middle school and high school levels (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004; Willard, 2006; Kowalski, Limber, & Agatston, 2008; Li, 2005). Thus it makes sense to expand the current research about cyberbullying and its outcomes for students at the middle school and high school levels.

From a prevention standpoint, the concept of cyberbullying seems to first appear among elementary school students even though they do not seem highly affected by cyberbullying during those years. Inserting a prevention-based, awareness-raising educational program about cyberbullying into their traditional bullying prevention curriculum could help to curtail future instances of cyberbullying as they move to middle school and high school, allowing the issue of cyberbullying to be addressed as a form of bullying before it has a chance to become a larger issue. Several studies have shown that cyberbullies thought that their behaviors were funny rather than hurtful, so before students begin to engage in cyberbullying it would be helpful to address
cyberbullying as a form of harassment, not a joke (Patchin & Hinduja, 2006; Kowalski, Limber, & Agatson, 2008). Finally, policy within school systems and throughout state legislatures needs to begin to address this issue. At the current time all except eight states have anti-bullying legislation, but only fifteen states directly address cyberbullying in that legislation (James, 2008). Because the previous research has shown increases in cyberbullying at the middle school and high school levels over the course of the last few years (See Figure 1), it would be prudent to address this problem now, before it has time to continue to increase.
References


Appendix A

Figure 1: Select Cyberbullying Prevalence Research

Percent of adolescents who report being cyberbullied

(Hinduja, & Patchin, 2009, p. 50)
Appendix B

Figure 2: Parental Consent Form

Dear Parent/Caregiver,

I am asking permission for your child to participate in a survey about bullying at our school. As part of our efforts for promoting a safe and healthy environment at our school, we have been implementing a bullying prevention program for several years. As part of this program, we will be giving an anonymous survey to all children in 3rd to 5th grades. The survey asks about where, when, and how often bullying occurs in our school. We will use the results of the survey to plan ways to make sure that our school is safe. The survey may also be used in research regarding effective bullying prevention strategies.

As the survey will ask about where, when, and how often bullying takes place at our school, your child may feel sad or upset when asked to think about these things. Though this is probably not likely to happen, we want you to know that it could.

Your child will complete the survey anonymously. We are interested in the results of the school, not particular children. We are not asking about which children are being bullied or which children are bullying.

Taking part is voluntary. All students in the class will be given the bullying survey. If you do not wish your child to take the survey, please fill out the form at the bottom of this letter and return it to your child’s teacher. You may consent for your child to complete the survey for school planning purposes, but not for research on effective bullying prevention. You can also call the school to let us know that you do not wish for your child to participate (273-3600). We will also ask the children to participate and tell them to hand in a blank survey sheet if they do not want to be included. Your child may choose to stop taking the survey at any time.

If you have questions about the survey, please contact me. You may also contact our partners at Miami University if you would like more information (Paul Flaspohler, PhD. at 529-2469, flaspohl@muohio.edu)

Thank you,

Mr. Chad Hinton
Principal

Return this portion only if you do not want your child to participate in the survey described above or you do not want their survey used for research on effective bullying prevention.

Please check one:

☐ I do not wish for my child ___________________________ to complete the bullying survey conducted in his/her classroom.

☐ My child ___________________________ may complete the bullying survey conducted in his/her classroom, but I do not wish for the survey to be used for research on effective bullying prevention.

_____________________________ ___________________________
Parent signature Date
Appendix C

Figure 3: Student Assent Form

Student Assent Script (All 3-5th graders)

*Teachers: Please read the following **before** students sign the assent form. Collect all assent forms **before** distributing the surveys.*

We want to learn more about the atmosphere at your school and ultimately want to help reduce bullying. Students who decide to participate in the study will fill out a survey which will ask questions about how they feel being at their school, their experiences with different people at school, bullying situations at school, what they think about bullying, and about how they respond in social situations.

Some good things may result from the study. We believe that this study will help us to find more ways to reduce bullying and help students to have better relationships at school.

We don’t expect that being part of the study will be a bad experience. However, it is possible that some students may not like answering questions about their thoughts and feelings or about bullying, in which case they would be allowed to stop immediately. Remember, you can change your mind and stop any time, or refuse to answer any question you don’t want to answer.

**All the answers you give will be kept private.** Your name will not be on any of your answer sheets, so no one will know which student gave which answers. Your answers will be seen only by the study team and will not be shown to your parents, teachers, or principal.

Do you have any questions?
Appendix D

Figure 4: Teacher Instructions

**INSTRUCTIONS**

**GETTING READY**

Let the children know the purpose of the survey—it is to gather information from the students about bullying and some other conditions at the school in order to make the school environment as good and as safe as possible.

Make sure that the students sit as far apart from each other as possible so that they cannot see or copy others' answers. It is important to put an immediate stop to any tendencies toward commotion or kidding. In such cases, the students should be encouraged to take the matter seriously and to answer the questions honestly and properly.

After the surveys are handed out, ask the students to fill in the name of the school, their grade, and the date. Write this information on the blackboard also.

In grades 3-5, all of the text in the survey, including the response alternatives, should be read aloud by the person who administers the survey. In grades 6-8, the person administering the survey should use discretion about reading all of the items aloud.

**ADMINISTERING THE SURVEYS**

1. Please take the prepared packet, labeled with your name and class number.
2. Be sure that the students use a #2 pencil or black ink.
3. Instruct each student that:
   a. They should not put any names on the survey, or in any way identify themselves or others.
   b. The survey results are completely anonymous. No one will know who wrote what—not even you, the teacher.
4. Review the practice question with the students and ask if there are any questions before beginning.
5. Have each of the students begin the survey at your prompt.
6. Read each question and all response choices aloud, allowing enough time for each student to answer them before proceeding to the next.

It is suggested that the person administering the surveys not walk around the classroom, as this can easily be perceived as an attempt to see what the students have answered. However, if individual students have trouble filling out the questionnaire, then of course, provide the assistance.

**COLLECTING THE SURVEYS**

1. Collect the questionnaires without looking at them.
2. Place them in the envelope labeled with your name and class number.
3. Fill out the enclosed cover sheet and place it in the envelope with the questionnaires.
4. Seal the envelope (while the students watch) and return it to the designated collection area or collection person.
5. Once all the surveys have been collected, please place them all in one box in a secure location.

Please Remember:
- Participation is voluntary.
- It is okay for the students to choose to leave questions blank. Please do not force them to answer anything, or provide answers for them.
Appendix E

Figure 5: Olweus Bully/ Victim Questionnaire

(Olweus, © Hazelden Foundation)
Appendix E Cont.

Figure 5: Olweus Bully/ Victim Questionnaire

2. Are you a boy or a girl?
- Girl
- Boy

3. How many good friends do you have in your class(es)?
- None
- I have 1 good friend in my class(es)
- I have 2 or 3 good friends in my class(es)
- I have 4 or 5 good friends in my class(es)
- I have 6 or more good friends in my class(es)

About being bullied by other students
Here are some questions about being bullied by other students. First we explain what bullying is. We say a student is being bullied when another student, or several other students
- say mean and hurtful things, or make fun of him or her, or call him or her mean and hurtful names
- completely ignore or exclude him or her from their group of friends or leave him or her out of things on purpose
- hit, kick, push, shove around, or lock him or her inside a room
- tell lies or spread false rumors about him or her or send mean notes and try to make other students dislike him or her
- and do other hurtful things like that

When we talk about bullying, these things happen more than just once, and it is difficult for the student being bullied to defend himself or herself. We also call it bullying when a student is teased more than just once in a mean and hurtful way.

But we do not call it bullying when the teasing is done in a friendly and playful way. Also, it is not bullying when two students of about equal strength or power argue or fight.

4. How often have you been bullied at school in the past couple of months?
- I have not been bullied at school in the past couple of months
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

Have you been bullied at school in the past couple of months in one or more of the following ways (questions 5–13)?

5. I was called mean names, was made fun of, or teased in a hurtful way.
- It has not happened to me in the past couple of months
- Only once or twice
- 2 or 3 times a month
- About once a week
- Several times a week
Appendix E Cont.

Figure 5: Olweus Bully/ Victim Questionnaire

6. Other students left me out of things on purpose, excluded me from their group of friends, or completely ignored me.
   - It has not happened to me in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

7. I was hit, kicked, pushed, shoved around, or locked indoors.
   - It has not happened to me in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

8. Other students told lies or spread false rumors about me and tried to make others dislike me.
   - It has not happened to me in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

9. I had money or other things taken away from me or damaged.
   - It has not happened to me in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

10. I was threatened or forced to do things I did not want to do.
    - It has not happened to me in the past couple of months
    - Only once or twice
    - 2 or 3 times a month
    - About once a week
    - Several times a week

11. I was bullied with mean names or comments about my race or color.
    - It has not happened to me in the past couple of months
    - Only once or twice
    - 2 or 3 times a month
    - About once a week
    - Several times a week

12. I was bullied with mean names, comments, or gestures with a sexual meaning.
    - It has not happened to me in the past couple of months
    - Only once or twice
    - 2 or 3 times a month
    - About once a week
    - Several times a week
Appendix E Cont.

Figure 5: Olweus Bully/ Victim Questionnaire

12a. I was bullied with mean or hurtful messages, calls or pictures, or in other ways on my cell phone or over the Internet (computer). (Please remember that it is not bullying when it is done in a friendly and playful way.)
   - It has not happened to me in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

12b. If you were bullied on your cell phone or over the Internet, how was it done?
   - Only on the cell phone
   - Only over the Internet
   - In both ways

13. I was bullied in another way.
   - It has not happened to me in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

14. In which class(es) is the student or students who bully you?
   - I have not been bullied at school in the past couple of months
   - In my class
   - In a different class but the same grade (year)
   - In a higher grade(s)
   - In a lower grade(s)
   - In both higher and lower grades

15. Have you been bullied by boys or girls?
   - I have not been bullied at school in the past couple of months
   - Mainly by 1 girl
   - By several girls
   - Mainly by 1 boy
   - By several boys
   - By both boys and girls

16. By how many students have you usually been bullied?
   - I have not been bullied at school in the past couple of months
   - Mainly by 1 student
   - By a group of 2–3 students
   - By a group of 4–9 students
   - By a group of 10 or more students
   - By several different students or groups of students

17. How long has the bullying lasted?
   - I have not been bullied at school in the past couple of months
   - It lasted 1 or 2 weeks
   - It lasted about a month
   - It lasted about 6 months
   - It lasted about a year
   - It lasted for several years
Appendix E Cont.

Figure 5: Olweus Bully/ Victim Questionnaire

<table>
<thead>
<tr>
<th>18. Where have you been bullied?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- I have not been bullied at school in the past couple of months</td>
</tr>
<tr>
<td>- I have been bullied in one or more of the following places in the past couple of months</td>
</tr>
</tbody>
</table>

**Please fill in the circles for all the places where you have been bullied:**

- 18a. On the playground/athletic field (during recess or break times)
- 18b. In the hallways/stairwells
- 18c. In class (when the teacher was in the room)
- 18d. In class (when the teacher was not in the room)
- 18e. In the bathroom
- 18f. In gym class or the gym locker room/shower
- 18g. In the lunchroom
- 18h. On the way to and from school
- 18i. At the school bus stop
- 18j. On the school bus
- 18k. Somewhere else at school

<table>
<thead>
<tr>
<th>19. Have you told anyone that you have been bullied in the past couple of months?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- I have not been bullied at school in the past couple of months</td>
</tr>
<tr>
<td>- I have been bullied, but I have not told anyone</td>
</tr>
<tr>
<td>- I have been bullied, and I have told somebody about it</td>
</tr>
</tbody>
</table>

**Please fill in the circles for all the people you have told:**

- 19a. Your class or homeroom teacher
- 19b. Another adult at school
- 19c. Your parent(s)/guardian(s)
- 19d. Your brother(s) or sister(s)
- 19e. Your friend(s)
- 19f. Somebody else
Appendix E Cont.

Figure 5: Olweus Bully/ Victim Questionnaire

20. How often do the teachers or other adults at school try to put a stop to it when a student is being bullied at school?
- Almost never
- Once in a while
- Sometimes
- Often
- Almost always

21. How often do other students try to put a stop to it when a student is being bullied at school?
- Almost never
- Once in a while
- Sometimes
- Often
- Almost always

22. Has any adult at home contacted the school to try to stop your being bullied at school in the past couple of months?
- I have not been bullied at school in the past couple of months
- No, they have not contacted the school
- Yes, they have contacted the school once
- Yes, they have contacted the school several times

23. When you see a student your age being bullied at school, what do you feel or think?
- That is probably what he or she deserves
- I do not feel much
- I feel a bit sorry for him or her
- I feel sorry for him or her and want to help him or her

About bullying other students

24. How often have you taken part in bullying another student(s) at school in the past couple of months?
- I have not bullied another student(s) at school in the past couple of months
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

Have you bullied another student(s) at school in the past couple of months in one or more of the following ways (questions 25–33)?

25. I called another student(s) mean names and made fun of or teased him or her in a hurtful way.
- It has not happened in the past couple of months
- Only once or twice
- 2 or 3 times a month
- About once a week
- Several times a week
Figure 5: Olweus Bully/ Victim Questionnaire

26. I kept him or her out of things on purpose, excluded him or her from my group of friends, or completely ignored him or her.
   - It has not happened in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

27. I hit, kicked, pushed, and shoved him or her around, or locked him or her indoors.
   - It has not happened in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

28. I spread false rumors about him or her and tried to make others dislike him or her.
   - It has not happened in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

29. I took money or other things from him or her or damaged his or her belongings.
   - It has not happened in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

30. I threatened or forced him or her to do things he or she did not want to do.
   - It has not happened in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

31. I bullied him or her with mean names or comments about his or her race or color.
   - It has not happened in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week

32. I bullied him or her with mean names, comments, or gestures with a sexual meaning.
   - It has not happened in the past couple of months
   - Only once or twice
   - 2 or 3 times a month
   - About once a week
   - Several times a week
Appendix E Cont.

Figure 5: Olweus Bully/ Victim Questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>32a. I bullied him or her with mean or hurtful messages, calls or pictures, or in other ways on my cell phone or over the Internet (computer).</td>
<td>It has not happened in the past couple of months</td>
</tr>
<tr>
<td></td>
<td>Only once or twice</td>
</tr>
<tr>
<td></td>
<td>2 or 3 times a month</td>
</tr>
<tr>
<td></td>
<td>About once a week</td>
</tr>
<tr>
<td></td>
<td>Several times a week</td>
</tr>
<tr>
<td>32b. If you bullied another student(s) on your cell phone or over the Internet (computer), how was it done?</td>
<td>Only on the cell phone</td>
</tr>
<tr>
<td></td>
<td>Only over the Internet</td>
</tr>
<tr>
<td></td>
<td>In both ways</td>
</tr>
<tr>
<td>33. I bullied him or her in another way.</td>
<td>It has not happened in the past couple of months</td>
</tr>
<tr>
<td></td>
<td>Only once or twice</td>
</tr>
<tr>
<td></td>
<td>2 or 3 times a month</td>
</tr>
<tr>
<td></td>
<td>About once a week</td>
</tr>
<tr>
<td></td>
<td>Several times a week</td>
</tr>
<tr>
<td>34. Has your class or homeroom teacher or any other teacher talked with you about your bullying another student(s) at school in the past couple of months?</td>
<td>I have not bullied another student(s) at school in the past couple of months</td>
</tr>
<tr>
<td></td>
<td>No, they have not talked with me about it</td>
</tr>
<tr>
<td></td>
<td>Yes, they have talked with me about it once</td>
</tr>
<tr>
<td></td>
<td>Yes, they have talked with me about it several times</td>
</tr>
<tr>
<td>35. Has any adult at home talked with you about your bullying another student(s) at school in the past couple of months?</td>
<td>I have not bullied another student(s) at school in the past couple of months</td>
</tr>
<tr>
<td></td>
<td>No, they have not talked with me about it</td>
</tr>
<tr>
<td></td>
<td>Yes, they have talked with me about it once</td>
</tr>
<tr>
<td></td>
<td>Yes, they have talked with me about it several times</td>
</tr>
<tr>
<td>36. Do you think you could join in bullying a student whom you do not like?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Yes, maybe</td>
</tr>
<tr>
<td></td>
<td>I do not know</td>
</tr>
<tr>
<td></td>
<td>No, I do not think so</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Definitely no</td>
</tr>
<tr>
<td>37. How do you usually react if you see or learn that a student your age is being bullied by another student(s)?</td>
<td>I have never noticed that students my age have been bullied</td>
</tr>
<tr>
<td></td>
<td>I take part in the bullying</td>
</tr>
<tr>
<td></td>
<td>I do not do anything, but I think the bullying is okay</td>
</tr>
<tr>
<td></td>
<td>I just watch what goes on</td>
</tr>
<tr>
<td></td>
<td>I do not do anything, but I think I ought to help the bullied student</td>
</tr>
<tr>
<td></td>
<td>I try to help the bullied student in one way or another</td>
</tr>
</tbody>
</table>
Appendix E Cont.

Figure 5: Olweus Bully/ Victim Questionnaire

38. How often are you afraid of being bullied by other students in your school?
- Never
- Seldom
- Sometimes
- Fairly often
- Often
- Very often

39. Overall, how much do you think your class or homeroom teacher has done to cut down on bullying in your classroom in the past couple of months?
- Little or nothing
- Fairly little
- Somewhat
- A good deal
- Much

(The question below is optional. You do not have to answer this question if you do not want to.)

40. How do you describe yourself? (Fill in all that apply.)
- American Indian
- Black or African American
- Arab or Arab American
- Hispanic or Latino
- Asian American
- White
- Other
- I do not know

School-Specific Questions

41. [Multiple choice options]

42. [Multiple choice options]
Appendix F

Figure 6: Brief Multidimensional Students’ Life Satisfaction Scale

*Brief Multidimensional Students’ Life Satisfaction Scale (BMSLSS)*

1. I would describe my satisfaction with my family life as:

2. I would describe my satisfaction with my friendships as:

3. I would describe my satisfaction with my school experience as:

4. I would describe my satisfaction with myself as:

5. I would describe my satisfaction with where I live as:

**Note:** Response options are a 7-point scale: Terrible, Unhappy, Mostly Dissatisfied, Mixed (about equally satisfied and dissatisfied), Mostly Satisfied, Pleased, Delighted

(Huebner, Suldo, & Valois, 2003)
Appendix G

Table 1: Student Grade Level Distribution

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>School 1</th>
<th>School 2</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Third</td>
<td>83</td>
<td>63</td>
<td>146</td>
</tr>
<tr>
<td>Fourth</td>
<td>60</td>
<td>74</td>
<td>134</td>
</tr>
<tr>
<td>Fifth</td>
<td>54</td>
<td>64</td>
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</tr>
<tr>
<td>Missing Values</td>
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<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>201</td>
<td>398</td>
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Appendix H

Table 2: Grade Level and Frequency of Cyberbullying

<table>
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<tr>
<th>Grade</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>134</td>
<td>91.8</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
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<td>0.7</td>
</tr>
<tr>
<td></td>
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<tr>
<td>4</td>
<td>110</td>
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<td></td>
<td>14</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>3.8</td>
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<table>
<thead>
<tr>
<th>Grade</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>1.12</td>
<td>.45</td>
<td>146</td>
</tr>
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<td>4</td>
<td>1.27</td>
<td>.68</td>
<td>133</td>
</tr>
<tr>
<td>5</td>
<td>1.08</td>
<td>.28</td>
<td>118</td>
</tr>
</tbody>
</table>

1  Not Involved in Cyberbullying
2  Cybervictim
3  Cyberbully
4  Cyberbully-Victim
Appendix I

Table 3: Grade Level and Frequency of Traditional Bullying

<table>
<thead>
<tr>
<th>Grade</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>62</td>
<td>42.5</td>
</tr>
<tr>
<td>2</td>
<td>70</td>
<td>47.9</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>2.7</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>6.8</td>
</tr>
<tr>
<td>4</td>
<td>49</td>
<td>36.8</td>
</tr>
<tr>
<td>2</td>
<td>56</td>
<td>42.1</td>
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<tr>
<td>3</td>
<td>5</td>
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</tr>
<tr>
<td>4</td>
<td>23</td>
<td>17.3</td>
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<tr>
<td>2</td>
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<td>33.1</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>5.1</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>11.9</td>
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</table>

<table>
<thead>
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<th>Grade</th>
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<th>Standard Deviation</th>
<th>N</th>
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</thead>
<tbody>
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<tr>
<td>4</td>
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<td>.1.05</td>
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<tr>
<td>5</td>
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</table>

1 | Not Involved in Traditional Bullying |
2 | Traditional Victim |
3 | Traditional Bully |
4 | Traditional Bully-Victim |
### Appendix J

#### Table 4: Engagement in Cyberbullying and Life Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Q32a</th>
<th>QOL1</th>
<th>QOL2</th>
<th>QOL3</th>
<th>QOL4</th>
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<tbody>
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<td>Q32</td>
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<td>-.095</td>
<td>-.093</td>
<td>-.045</td>
<td>-.081</td>
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<td>.037</td>
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<tr>
<td>(QOL 3)</td>
<td>.093</td>
<td>.100</td>
<td>.212**</td>
<td>.306**</td>
<td>1.000</td>
<td>.343**</td>
<td>.390**</td>
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<tr>
<td>(QOL 4)</td>
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<td>.427</td>
<td>.046</td>
<td>.287**</td>
<td>.343**</td>
<td>1.000</td>
<td>.378**</td>
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<tr>
<td>(QOL 5)</td>
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<td>.037</td>
<td>.215**</td>
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<td>.378**</td>
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*Correlation is significant at the .05 level (2-tailed).  
** Correlation is significant at the .01 level (2-tailed).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
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</tr>
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<td>QOL 3</td>
<td>5.35</td>
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<td>360</td>
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<td>365</td>
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<tr>
<td>QOL 5</td>
<td>5.99</td>
<td>1.57</td>
<td>363</td>
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<td>QOL 6</td>
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<table>
<thead>
<tr>
<th>Q32a</th>
<th>Being a Cyberbully</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOL 1</td>
<td>Satisfaction with Family Life</td>
</tr>
<tr>
<td>QOL 2</td>
<td>Satisfaction with Friendships</td>
</tr>
<tr>
<td>QOL 3</td>
<td>Satisfaction with School Experience</td>
</tr>
<tr>
<td>QOL 4</td>
<td>Satisfaction with Self</td>
</tr>
<tr>
<td>QOL 5</td>
<td>Satisfaction with Residence</td>
</tr>
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<td>QOL 6</td>
<td>Global Life Satisfaction</td>
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</table>
### Table 5: Cyberbullying and Satisfaction with Family Life ANOVA

<table>
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<tr>
<th>Source</th>
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<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<table>
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<th>Cyberbullying Status</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
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<td>1.35</td>
<td>319</td>
</tr>
<tr>
<td>Cyberbully</td>
<td>5.70</td>
<td>1.80</td>
<td>30</td>
</tr>
<tr>
<td>Cybervictim</td>
<td>5.20</td>
<td>1.64</td>
<td>5</td>
</tr>
<tr>
<td>Cyberbully-victim</td>
<td>4.60</td>
<td>2.30</td>
<td>5</td>
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Appendix L

Table 6: Cyberbullying and Satisfaction with School Experience ANOVA

<table>
<thead>
<tr>
<th>Source</th>
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<th>df</th>
<th>Mean Square</th>
<th>F</th>
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<td>3.05</td>
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</table>

<table>
<thead>
<tr>
<th>Cyberbullying Status</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Involved</td>
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<td>1.68</td>
<td>320</td>
</tr>
<tr>
<td>Cyberbully</td>
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<tr>
<td>Cybervictim</td>
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<td>Cyberbully-victim</td>
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Table 7: Traditional Bullying and Satisfaction with Family Life ANOVA

<table>
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<tr>
<th>Source</th>
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<th>df</th>
<th>Mean Square</th>
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<th>Sig.</th>
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<td>3.83*</td>
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<tr>
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<td>355</td>
<td>1.96</td>
<td></td>
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<table>
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<th>N</th>
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<tbody>
<tr>
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<td>1.90</td>
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Appendix N

Table 8: Traditional Bullying and Satisfaction with School Experiences ANOVA

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<th>Mean</th>
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<th>N</th>
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<tbody>
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<tr>
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<td>150</td>
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<td>Victim</td>
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Appendix O

Table 9: Traditional Bullying and Satisfaction with Family Life Post Hoc

<table>
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<th>Bullying Status: I</th>
<th>Bullying Status: J</th>
<th>Mean Difference (I-J)</th>
<th>Standard Error</th>
<th>Significance</th>
</tr>
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<tbody>
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</tr>
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<td>.2397</td>
<td>.018</td>
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<td>.2401</td>
<td>.429</td>
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<td>1</td>
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*Mean difference is significant at the .05 level.

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<tr>
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</tr>
<tr>
<td>3</td>
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<td>Cyberbully</td>
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<tr>
<td>4</td>
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Appendix P

Table 10: Traditional Bullying and Satisfaction with School Experiences Post Hoc

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<th>Mean Difference (I-J)</th>
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<td>.5254</td>
<td>.169</td>
</tr>
</tbody>
</table>

*Mean difference is significant at the .05 level.
**Mean difference is significant at the .01 level.

1 Not involved in Traditional Bullying
2 Traditional Victim
3 Traditional Bully
4 Traditional Bully-Victim
Appendix Q

Table 11: Cyberbullying Correlated with Traditional Bullying

<table>
<thead>
<tr>
<th>Traditional Bullying Status</th>
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** Correlation is significant at the 0.01 level (2-tailed).

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<tbody>
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