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The Experience of Victimization as the Result of Cyberbullying Among College Students: A study of Demographics, Self-Esteem, and Locus of Control

Sonya P. Poole
Stephen F. Austin State University, sonyapoole84@gmail.com

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By

Sonya Parker Poole, Bachelor of Art, Master of Science

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The Experience of Victimization as the Result of Cyberbullying Among College

Students: A study of Demographics, Self-Esteem, and Locus of Control

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APPROVED:

_____
Dr. Nina Ellis-Hervey, Dissertation Chair

_____
Dr. Ginger Kelso, Dissertation Co-Chair

_____
Dr. Robbie J. Steward, Committee Member

_____
Dr. Luis Aguerrevere, Committee Member

_____
Dr. Yuleinys Castillo, Committee Member

_____
Richard Berry, D.M.A.
Dean of the Graduate School

ABSTRACT

Cyberbullying is commonly defined as a deliberate and aggressive act that is committed using an electronic form of contact. It has been linked to negative emotional and mental well-being along with incidents of suicide. The current study looks at the prevalence rates of cyberbullying among college aged adults. It uses a survey method design to examine the correlation of cyberbullying with gender, age, race, socioeconomic status, self-esteem, and locus of control. The results indicated a relatively high report of cyberbullying incidents when compared to previous studies. A significant difference was obtained when cyberbullying incidents were evaluated based on the participant's gender. A significant positive correlation was also found between cyberbullying victimization and high self-esteem. In the current study the majority of respondents who reported incidents of cyberbullying victimization were aware of the identity of their perpetrator.

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CHAPTER ONE

Introduction

<u>Bullying</u>

Bullying has been in existence in the literature as an area of study since 1930. It was first identified as a characteristic of young males that were incarcerated in the Journal of Juvenile Research (Tyson, 1930). It has only begun to gain focus in the last thirty years since Dan Olweus first began to examine the existence and prevalence of reported incidents. The most cited definition for bullying is by Dan Olweus (1978), who is often referred to as the foremost expert in the area of bullying prevention and intervention. Olweus defined bullying as an exposure to negative physical contact, negative language/gestures, or facing exclusion from a group. These behaviors have to occur repeatedly over a period of time and there must be a real or perceived imbalance of power between the bully and their victim (Olweus, 1978). Since it was defined, many researchers have examined the potential causes and solutions for bullying behaviors. A plethora of methods for bullying prevention/intervention programs have been introduced, but there is still no clear cut answer as to what to do about bullying (Fox & Boutlon, 2003). With no

concrete solution available, bullying continues to be an issue of concern in our current society.

Bullying is often seen as a grade school problem but studies have shown that bullying does not only affect the middle and high school population, but it also occurs at the college level and impacts those who are transitioning into adulthood. In 2004, researchers found that out of 1,000 college students, ranging from freshmen to seniors, as many as 33.4% had seen a classmate be bullied and 18.5% had been victims of bullying themselves (Chapell, Casey, De la Cruz, Ferrell, Forman, Lipkin, Newsham, Sterling, & Whitaker). In 2009, Kunttu and Huttunen surveyed over 5,000 college students and found that 37% reported being bullied during college. In 2014, another study discovered that out of almost 3,000 college students, 4.2% had been bullied at the bachelor's level and 6.2% had been bullied at the master's level (Sinkkonen, Puhakka, & Merilainen). Most of these incidents were characterized by reports as practices of discrimination or exclusion, followed by direct negative verbal expressions, and finally overt physical contact. Looking at this data it appears as if we may be seeing a decrease in the incidents of bullying victimization. The variance in the reported incidents of bullying among these studies could actually be due to differences among the studies. In 2004, this data was collected by five questions that were part of a much larger general health questionnaire. In 2009, this data was collected using a specialized bullying questionnaire that gave a clear

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definition of bullying behavior. In 2014, this data was collected as part of a survey that also addressed bullying from teachers. The refinement of each data collection tool and the fear of teacher retaliation may have caused the variety in the data collected. It is not clear that there is currently a reduction in the incidents of bullying among college students.

Victims of bullying report a wide variety of negative side effects. They report lower levels of self-esteem and higher rates of depression (Olweus, 2012). They often feel isolated from others and tend to internalize feelings of worthlessness (Patchin & Hinduja, 2010). Individuals who have been bullied may also experience high levels of fear or anxiety related to their negative interactions with the perpetrator and lack of awareness on how to cope or seek assistance (Olweus & Limber, 2010). They have reported that they feel as if no one understands their experiences (Schenk & Fremouw, 2012). Adults who have been bullied report higher levels of mental health concerns along with decreased levels of physical health (Holt, Green, Reid, DiMeo, Espelage, Felix, Furlong, Poteat, & Sharkey, 2014). Bosworth, Espelage, and Simon (1999) found that those who are bullied indicate higher levels of anger and are cited in more incidents of misconduct and criminal behavior. These individuals are frustrated by their circumstances and may act out through misconduct or criminal behavior in order to gain attention. This may suggest a circular nature of the phenomenon that may be self-perpetuating if no effective intervention occurs. Despite the

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prevalence of bullying and its negative effects, it continues to go unaddressed in adult populations and little is done to rectify its long lasting impact.

Cyberbullying

Over the past decade bullying has begun to take on a new form that is less understood and even more difficult to address (Barlett & Gentile, 2012). The inability to conquer the bullying epidemic has resulted in a new area of concern: cyberbullying. Cyberbullying is commonly defined as a deliberate and aggressive act that is committed using an electronic form of contact (Smith, Mahdavi, Carvalho, Fisher, Russell, & Tippett, 2008). Beran and Li (2007) found that one-third of high school students who had been bullied in person by classmates were also being bullied online. They noted that many times the bullying began face-to-face but continued or intensified over the internet. Hinduja and Patchin (2008) found that individuals who have been victims of traditional bullying within the last six months were two and a half times more likely to also be victims of cyberbullying. Based on these findings it appears that cyberbullying may be an extension or updated version of traditional bullying given the mainstream access to technology and social media. Some studies have suggested that even though there is significant overlap between the two forms of bullying, cyberbullying has become its own entity and has taken on unique characteristics that distinguish it from traditional bullying (Erdur-Baker, 2010). Regardless of how this continuum

is defined, a lack of understanding still remains about how to address and resolve the issue of cyberbullying.

The ever growing technology available to society has given bullies new capabilities in the digital realm (Beran & Li, 2007). Cyberbullying is now an occurrence in the lives of many children, adolescents, and even adults, that we were not exposed to twenty years ago. There is consensus among researchers that cyberbullying is a form of aggression that is generated by technology (Langos, 2012). Some debate still exists, however, about a specific definition of cyberbullying. The most widely used definition of cyberbullying defines it as a deliberate and aggressive act that is committed using an electronic form of contact (Smith, Mahdavi, Carvalho, Fisher, Russell, & Tippett, 2008). This definition also specifies that the act can be carried out by an individual or a group and must be repeated over time against someone who cannot easily defend themselves. This is based on the definition of traditional bullying created by Olweus (1978). This could be an anonymous and shaming story posted about someone online for others to see. These rumors may result in negative consequences for the victim's image and reputation. It might also be a threat sent from one individual to another over the internet. This may produce fear or paranoia for the victim. It could also be an unflattering image of someone that is posted on a social media site without their permission. This might evoke embarrassment from the victim. There are many forms that this type of bullying

can take using technology. There are typically two main concerns regarding this definition that are expressed by researchers: repetition and imbalance of power.

Some researchers have suggested that cyberbullying may differ from traditional bullying in that there may be only one documented incident or that it may be difficult to identify a power differential (Grigg, 2010). By its nature, cyberbullying is repetitive and is carried out against those who cannot defend themselves (Hinduja & Patchin, 2008). Once something is posted online it may be viewed many times and shared with multiple individuals without any notice. Even though the bully may only instigate one incident of bullying, it can have widespread and long-term effects that constitute repetition. In cyberbullying the repetition is related to how many times the information is viewed by various bystanders and the actual number of times something is posted is irrelevant (Grigg, 2010). In addition, the posts are often permanent and cannot be stopped because of the nature of the internet. Information that is posted online may be difficult for the victim or anyone else to remove. This creates a power differential between the victim and the bully since the victim is then helpless to change or remove the content that is posted. A power differential exists when one individual feels physically, mentally, or emotionally superior to another, which can be difficult to assert when the other person is unknown. For the purpose of cyberbullying, situational advantages (i.e. an established chat group bullying a new member) can create this power imbalance (Grigg, 2010). These elements

may be naturally included as part of cyberbullying and do not need to be specifically stated or identified in the definition, unlike traditional bullying.

The most visible difference between cyberbullying and traditional bullying is the format in which it occurs (Juvonen & Gross, 2008). Traditional bullying typically occurs face to face but cyberbullying takes place using an electronic form of contact. Bullies can contact their victims using cellphones, laptop computers, desktop computers, tablets, or any other means of electronic communication. Cyberbullying may transpire through: text messaging, e-mails, instant messaging, webpages, blogs, chatrooms, video media, social media, or a variety of applications (MacDonald & Roberts-Pittman, 2010). It has created a plethora of means for bullies to utilize to attack their victims. Traditional bullying also involved physical bullying. This is no longer an option with cyberbullying but new methods for victimizing others are now available. Juvonen and Gross (2008) found that most incidents of cyberbullying involved: name calling, insults, password theft, sharing of private pictures/information, sharing of embarrassing pictures/information, and threats. Now cyberbullying can involve large masses of people where traditional bullying typically occurred within a specific social group or on a certain campus. Cyberbullying can involve a wide array of methods and means. The possibilities available for bullies to reach their victims are extensive (Mason, 2008). With the multitude of options available to promote cyberbullying, it has created a new level of bullying victimization.

In the past, traditional bullying usually occurred during the school day and victims could avoid their perpetrators or report them to an authority figure. With the creation of cyberbullying, those restrictions have become obsolete. Now bullies can victimize others regardless of the day of the week or the time of day (Patchin & Hinduja, 2006). There is little relief for victims and sometimes they cannot escape their tormentor. It becomes an issue of disconnecting from the internet in a constantly technology driven world. This is not always possible. They can also reach large audiences in a short period of time (Slonje & Smith, 2008). This can increase the impact of each single incident of cyberbullying. Even if the bully decides to remove what they have done, it may have already been seen by others or copied and recreated numerous times. Bullies can also avoid being caught by remaining anonymous which creates an endless ability for bullies to torment their victims without any recourse (Langos, 2012). It can sometimes be difficult to ever accurately pinpoint the source of where the cyberbullying began. Some researchers speculate that cyberbullying is more detrimental and has more negative ramifications than traditional bullying because of these unique aspects (Ortega, Elipe, Mora-Merchan, Genta, Brighi, Guarini, Smith, Thompson, & Tippett, 2012). Cyberbullying can now occur for many years and across long distances. Moving or graduating does not put an end to the vicious cycle which has caused more adults to be exposed to the phenomenon of cyberbullying (Barlett & Gentile, 2012). The prevalence and

impact of cyberbullying among this age group is still a relatively understudied area of research.

Baldasare, Bauman, Goldman, and Robie (2012) revealed that typical incidents of cyberbullying among college students range from 9% to 34% in various studies. In 2010, from a survey of 439 college students, researchers found that 38% knew someone who had been cyberbullied and 21.9% had been cyberbullied themselves (MacDonald & Roberts-Pittman, 2010).   This study utilized the internet experiences questionnaire which gathered information regarding all aspects of students' internet use. Another study in 2011 found that out of 131 undergraduate students, 11% had been victims of cyberbullying (Walker, Sockman, & Koehn, 2011). The questionnaire utilized in this study focused specifically on cyberstalking, which may have presented a negative connotation for respondents. In 2012, 799 college students were surveyed and 8.6% had experienced cyberbullying at some point during their time in college (Schenk & Fremouw, 2012). The researchers in this study gave a very specific definition of cyberbullying and the target behavior that they were examining. If we look at this data in consecutive order, it appears as if we may be seeing a decrease in the incidents of cyberbullying victimization among college students. The true reason for this variance is due in part to the methods used to gather the data and the definition of cyberbullying that was used. The first study in 2010 looked to assess students' general experiences with the internet so it had a very

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broad definition of cyberbullying. The second study in 2011 focused more on incidents of victimization but presented the concept of cyberstalking which may have a more negative tone. The third study in 2012 gave a very concise definition of cyberbullying and looked specifically at this particular behavior. The refinement over time could have produced a decrease in the number of incidents reported. These statistics are proof that cyberbullying does occur among college aged young adults and the percentage of those affected can reach alarming rates. Previously research only examined prevalence rates among junior high and high school aged students. Within recent years, researchers have begun to see that cyberbullying does occur among this older age group (Privitera & Campbell, 2009). There are currently only limited statistics available regarding the incidents of cyberbullying among this age group but research has begun to focus more on cyberbullying at the college level.

Impact

The psychological and emotional effects of cyberbullying are similar to those found with traditional bullying. In 2005, researchers found that victims of cyberbullying experienced a broad range of emotional responses including: anger, sadness, hurt/guilt, anxiety, embarrassment, and fear (Beran & Li, 2005). They reported incidents of crying and blaming themselves. They felt guilty that they allowed this to happen to them but unsure how to stop it. Another study found that victims experienced significant amounts of stress and lower self-

esteem (Patchin & Hinduja, 2010). They believed that something must be wrong with them for this to occur or for them to be treated this way. Mason (2008) discovered that victims of cyberbullying often exhibit behavior problems, consume alcohol or drugs, consciously avoid the internet, dwell on cyberbullying experiences, and lose interest in their usual activities. It was shown to affect not only how victims feel, but also how they behave and interact with others. Cyberbullying that occurred in the workplace has been associated with decreased physical health, poor social relationships, and negative emotional well-being (Privitera & Campbell, 2009). It has been shown that cyberbullying affects individuals in all aspects of life including personal life and work or school commitments (Schenk & Fremouw, 2012). It can have negative impacts on overall well-being including emotional and physical health. It changes how individuals see themselves and respond to their environment. (Walker, Sockman, & Koehn, 2011). The effects can be highly detrimental and long lasting. They have even been associated with incidents of death.

Cyberbullying has been linked to increases in suicidal ideation and suicide attempts (Hinduja & Patchin, 2010). Hinduja and Patchin surveyed 2,000 students from 30 middle schools in one of the largest school districts in the United States. All of the students attended sixth through eighth grade and were between the ages of 11 and 15. They obtained information related to their experiences with bullying and cyberbullying as well as their thoughts regarding

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suicide. A series of ordinary least square regression models were utilized to examine the effects of both bullying formats on suicidal ideation. A logistic regression was also conducted to focus on suicide attempts. The researchers found that 20% of the students surveyed had seriously thought about attempting suicide and 19% had attempted suicide in the past. Cyberbullying victims were 1.9 times more likely to have attempted suicide and bullying victims were 1.7 times more likely to have attempted suicide. Those who were victimized definitely exhibited higher rates of suicidal ideation. The data indicates that cyberbullying victims were slightly more likely to attempt suicide than those who experienced traditional bullying. There were other factors that played into the suicide attempts of these students but cyberbullying victimization did exacerbate the situation and add to their decision (Hinduja & Patchin, 2010).

This is not only true for middle school students, but high school students as well. Bauman, Toomey, and Walker (2013) reviewed the Arizona Youth Risk Behavior Survey to gather information about adolescent experiences with cyberbullying and suicidal behaviors. This survey is a program to monitor health risk behavior that is conducted by the Center for Disease Control. The data was collected from 1,491 high school students in grades 9 through 12. The researchers specifically examined the data collected regarding depression, suicide, bullying, and electronic bullying. They then divided the responses into categories based on whether the respondent was a bully or a victim of bullying or

cyberbullying. Structural equation modeling was used to assess whether depression acts as a moderator of the connection between bullying and suicide attempts. A Pearson correlation coefficient was run to determine if there was a connection between being depressed during the last year and considering suicide. They found that students' experiences with both forms of bullying were associated with suicidal behaviors. For females, being a victim of cyberbullying was strongly correlated with depression which was linked to suicide attempts. The researchers suggested that this is because females are more likely to internalize negative experiences than males. There was a higher report of suicidal ideation among those who had experienced some form of victimization (Bauman, Toomey, & Walker, 2013).

Litwiller and Brausch (2013) found similar results when they reviewed the data in an existing database of a large scale community mental health screening. This data came from a rural Midwestern state and included 27 high schools. There were 4,693 students surveyed between the ages of 14 and 19 years old. The survey was voluntary, paper based, and built from questions included in the Youth Risk Behavior Survey. The topic of the questions included: physical bullying, cyberbullying, suicidal behavior, drug use, violence, and sexual behavior. Of these students, 23% reported experiences with cyberbullying. Among those who reported victimization, 30% reported having suicidal ideation. A bootstrapping method was conducted and found that cyberbullying had

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substantial and positive direct effects on substance use, violent behavior, sexual behavior, and suicidal behavior. When cyberbullying victimization was used as a predictor it explained 67% of the variance in suicidality. Cyberbullying was found to account for more variance than traditional bullying.   Cyberbullying victimization can be linked to a multitude of externalizing behaviors, including suicidal ideation and suicide attempts. The risk taking behavior and substance use that can accompany cyberbullying victimization also contribute to the likelihood of acting on suicidal thoughts for adolescents (Litwiller & Brausch, 2013).

Suicide is a serious area of concern. It currently serves as the main cause of death for those in the adolescent population (Litwiller & Brausch, 2013). Research has shown that exposure to cyberbullying increases thoughts of suicide and possible suicide attempts (Patchin & Hinduja, 2010). Experiences with cyberbullying also increase the victim's level of depression. High rates of depression have been linked to suicidal behavior (Bauman, Toomey, & Walker, 2013). Many externalizing behaviors that are frequently associated with suicide attempts have been connected with cyberbullying victimization such as: extreme risk taking behavior and substance use (Litwiller & Brausch, 2013). This association with such a lethal behavior is a definitive reason why we need to further comprehend this phenomenon. Cyberbullying is difficult to monitor, control, and eradicate. Its negative impact and devastating effects have only

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recently gained the attention of researchers. There is still much that we do not

understand regarding cyberbullying, its victims, and the consequences (Beran &

Li, 2005). It has been suggested that it may be more strongly connected to

suicidality than traditional bullying because of its format and anonymous nature

(Litwiller & Brausch, 2013). Although there is no data available regarding its

connection to the adult population, it can be assumed that similar results would

be obtained.

Anonymity

Evidence suggests that the impact of cyberbullying can vary based on the

type of cyberbullying being experienced. There are two main types of

cyberbullying: direct and indirect (Langos, 2012). Direct cyberbullying occurs

when the victim is directly contacted by the bully on an individual basis. This can

be direct contact made by phone calls, text messages, e-mails, or some other

personal and immediate means. In direct cyberbullying, the victim is aware of

who their perpetrator is and it is conducted on a more one-on-one basis (Langos,

2012). Indirect cyberbullying occurs when the bully does not contact the victim

directly. In this form of bullying, information may be posted online via a

webpage, blog, social media, YouTube, or some other public and indirect means.

In indirect cyberbullying, the victim is typically not aware of who their bully is and

it may be someone that they never met (Langos, 2012). This indirect

cyberbullying can have the most detrimental effects since without an identified

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source, it is difficult to remove the information from the internet. The anonymity

of the bully also makes it nearly impossible to retaliate or report the perpetrator.

Victims can sometimes feel angry without knowing who to blame and confused

about why they were targeted (Barlett, 2015).   Both forms of cyberbullying have

negative effects but the confusion that comes with indirect cyberbullying can

exacerbate the situation.

The anonymity that is available with the introduction of cyberbullying

makes it far more difficult to identify and control than traditional bullying. It can

also result in increased negativity and aggression. In a study conducted in 2014,

researchers found that 53% of comments posted anonymously online were

negative while only 29% of those posted by an identifiable source were negative

(Santana, 2014). Anonymity allows deindividuation to occur so that the bully

feels less remorse and guilt related to their behavior. It also increases the

frequency of their aggression (Barlett, 2015). Bartlett, Gentile, and Chew (2014)

found that individuals were more likely to say and do things online that they were

not comfortable with or felt guilty about in person. Anonymity allows people to

express themselves freely without fear of judgement from others (Zimmerman &

Ybarra, 2014). A review of online chatrooms found that the majority of comments

classified as cyberbullying were from anonymous posters (Moore, Nakano,

Enomoto, & Suda, 2012). Anonymity provides an opportunity for catharsis where

individuals can take out anger and frustration on those around them (Zimmerman

& Ybarra, 2014). It is possible that anonymity gives the bully a feeling of power and control over their victim. It allows them to do whatever they want without any consequences (Barlett, 2015). It helps individuals to separate themselves from the negative consequences of their actions. This can cause them to be more aggressive and may allow them to do more damage to the victim (Santana, 2014).

The anonymity associated with indirect cyberbullying creates new areas of concern and new consequences for victims. It prevents the victim from being able to stop their perpetrator and creates extreme feelings of helplessness. Researchers suggest that it may also result in a much more devastating and long lasting impact. Slongje and Smith (2008) found that this aspect of cyberbullying caused an increase in the victim's feelings of powerlessness and frustration. Being unable to report the perpetrator or retaliate against the bully can create extreme stress for the victim. This lack of understanding can lead to a lot of internal emotional conflict for victims of cyberbullying. It can cause them to feel helpless and unable to resolve the problem. This can lead to higher incidents of internalizing adjustment problems (Gradinger, Strohmeier, & Spiel, 2009). This lack of resolution may result in increased rates of sadness or anger that can last for extended periods of time (Slongje & Smith, 2008). Researchers have found that 29% of adolescents were unable to identify who was bullying them online (Patchin & Hinduja, 2006). With the catharsis and lack of consequence that

comes with this anonymity, we can expect these rates to continue to increase

over time. It is clear that this is an area of concern that needs to be addressed.

Justification

        Cyberbullying is a legitimate area of concern in the current technologically

advanced society (Fredstrom, Adams, & Gilman, 2011). It presents significant

negative consequences with no clear-cut method of intervention or response.

Previous research has looked mostly at the prevalence of this issue among

middle and high school age children. Only recently have researchers noted that

it takes place among the adult population and begun to focus on this age group.

(Baldasare, Bauman, Goldman, & Robie, 2012). By examining the prevalence

and incidents of cyberbullying among this population, the steps for intervening

and providing prevention with younger age groups will be identified. Adults are

better able to understand the concept of cyberbullying and respond to

questionnaires regarding their demographic background and aspects of their

personality. This population can reflect on their experiences and provide

valuable feedback, which can be used to establish patterns of victimization.

College aged adults are old enough to respond appropriately to personality

questionnaires but young enough to have experiences with cyberbullying, since it

is a relatively new phenomenon (Gradinger, Strohmeier, & Spiel, 2009). For that

reason, this population has been chosen for further study. Demographic

background, socioeconomic status, self-esteem, and locus of control are

variables that have been shown to correlate with cyberbullying victimization. By identifying trends within these variables, children and adolescents who may be potential victims for cyberbullying can be identified. Detecting trends among victims may result in possible areas for implementing prevention and intervention strategies to prevent cyberbullying and support those who are more vulnerable to victimization. The purpose of this study is to determine to what degree do university students' demographic background, socioeconomic status, self-esteem, and locus of control predict reports of their experiences with being cyberbullied.

CHAPTER TWO

Literature Review

<u>Demographic Variables</u>

<u>Gender</u>. Males and females vary in their social interactions and interpersonal

relationships. They connect with people in different ways and each respond to

others in their own unique way. For this reason, it is alleged that gender will play

a significant role in cyberbullying victimization. There will be differences among

cyberbullying victimization based on gender (Patchin & Hinduja, 2008). Females

have been shown to engage in more passive forms of aggression. They typically

utilize emotional and psychological approaches. Males have been shown to

engage in more physical forms of aggression. They tend to respond with direct

violence (Patchin & Hinduja, 2010). This is the reason that gender was chosen

as a potential demographic variable of relevance with regard to cyberbullying.

These differences between the sexes may influence rates of victimization.

Research has also shown that cyberbullying usually occurs within gender. This

means that the gender of the perpetrator and the victim is the same (Patchin &

Hinduja, 2008). The research available regarding gender and cyberbullying has

historically looked at the gender of perpetrators. Limited research has been

conducted to examine the influence of gender on cyberbullying victimization but there is little available regarding those in the adult population.

Patchin and Hinduja (2008) utilized an online survey to explore the factors related to cyberbullying victimization. The survey was administered to 1,378 respondents under the age of 18. There was an equal representation of females and males but the majority of the participants were Caucasian (80%). The respondents spent an average of 18 hours per week online engaging in various activities. These could include personal activities such as shopping or playing games as well as work related activities. The researchers found that 36% of girls and 32% of boys reported being cyberbullying victims. Girls were slightly more likely to be victimized online than their male counterparts. The most common method of cyberbullying was through online chat rooms followed by computer text messages. The researchers believe that the indirect format of cyberbullying is the reason for an increased victimization rate for females. Males typically engage in physically bullying and direct forms of aggression. Since relational and psychological bullying are the most common formats for females, they believe it makes sense that this would be a format utilized more by girls. These online chat rooms and computer text messages can be conducted anonymously and present a prime opportunity for psychological bullying without the worry of negative consequences or punishment. It allows for girls to victimize others and

provides them with a form of catharsis or control and possibly retaliation (Patchin & Hinduja, 2008).

In 2015, Heiman, Olenik-Shemesh, and Eden (2015) surveyed 507 students including 275 boys and 232 girls between the ages of 12 and 17 years old. The students attended three middle schools and two high schools in the central part of Israel where principal permission was granted for participation in the research study. Student participation was voluntary and after parent consent was obtained, they were administered the Cyberbullying Self-Report Questionnaire. A chi square analysis found that 62.8% of the girls reported being victims of cyberbullying versus 50.5% of the boys. They further examined the data using three separate univariate analysis of variance measures and determined that females who were diagnosed with a learning disability and attended special education classes (14.7%) were more likely to be victimized than those with no exceptionality (11.2%). The authors suggest that this difference is related to the type of bullying committed online which is similar to the results of Patchin and Hinduja. Interestingly, the authors also found that males were more likely to report being perpetrators of cyberbullying. This suggests that while females were more likely to be victims, males were more likely to be the bullies. This contradicts previous research in that this would suggest the cyberbullying occurred across genders. The researchers suggest

this may be due to the fact that females are more empathetic and therefore less likely to victimize others (Heiman, Olenik-Shemesh, & Eden, 2015).

Another study found similar results within an adult population in Malaysia. Balakrishnan (2015) surveyed 393 adults between the ages of 17 and 35 years old regarding their experiences with cyberbullying. Most of the adults were in college (80.7%) or were working professionals (19.4%). Each reported using the internet for personal use daily. A survey was administered online through links posted on Facebook to gather the information. A chi square test was used to examine data regarding demographic variables and cyberbullying experiences. Out of the 191 females and 202 males surveyed, 53.8% of females had experienced cyberbullying while 46.2% of the males were victimized. Females also reported being perpetrators more often than males, 53.8% versus 46.2%. The researcher accredited this to the fact that females spend more time online than their male counterparts. He did not examine this specifically in this study, but he based it on the previous research of Balakrishnan and Shamim (2013). They also stated that females may feel less inhibited online and more likely to engage in the emotional and psychological bullying that is more common among this gender. Typically bullying occurs within gender, which was supported by the findings of this research article as females are more often perpetrators and victims than their male counterparts. This article shows that the impact of gender

is visible with regard to cyberbullying even among the adult population (Balakrishnan, 2015).

In the most recent study regarding the influence of gender on cyberbullying victimization, Safaria (2016) found quite different results. This study looked at 102 seventh grade students who were attending a private school in Indonesia. Of this sample, 70.6% were boys and 29.4% were girls and all were between the ages of 12 and 13 years old. The students voluntarily participated in the study and completed a questionnaire that had several questions related to general cyberbullying experiences and a section related specifically to victimization. Several types of statistical testing were conducted to analyze the variations among the data including Pearson correlations, ANOVA, and MANOVA. Out of these students, approximately 80% had experienced cyberbullying victimization occasionally or regularly. No significant differences were found based on the gender of the victim. Males and females were both equally victimized online through cyberbullying. However, males were found to engage in cyberbullying perpetration significantly more often than females. The lack of variation among gender contradicts past research regarding cyberbullying victimization. The author did not offer any explanation as to why this may have occurred. It could be possible that males are beginning to engage in cyberbullying more regularly but further examination is needed to determine if

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this is true. The current study will add to the literature regarding current incidents

of cyberbullying victimization among males and females (Safaria, 2016).

Age. Our age impacts how we see the world and what we perceive to be

important. When we are young we tend to be much more hedonistic and value

our friendships above all else. Adolescents and young adults are more likely to

be impulsive and engage in risk taking behavior. The long term consequences of

behavior may not be as important as the short term pleasure that we receive

(Balakrishnan, 2015). As we get older our perceptions and priorities begin to

change. We become more responsible and independent. Our time becomes

more valuable because we understand that it is limited and our family becomes

the center of our attention. Our required activities such as work and

housekeeping take precedence over activities that we find enjoyable or

egocentric (Balakrishnan, 2015). This is why age was chosen as a potential

variable of interest in relation to cyberbullying. The current study will only

examine the adult population between the ages of 18 and 50 years old. This a

group where limited research is available regarding prevalence and experiences

with cyberbullying. The research that is available regarding adults rarely

differentiates the age groups included. The present research will be able to add

to the literature regarding prevalence of cybervictimization among adults based

on their age.

Balakrishnan (2015) surveyed 393 adults between the ages of 17 and 30 years old regarding their experiences with cyberbullying victimization. Approximately 66% were between the ages of 21 and 25 years old, 19.8% were between 17 and 20 years old, and 14.2% were between 26 and 30 years old. All of these adults were Malaysian and were currently in college or working as professionals in various fields. Online surveys were administered using Facebook, emails, and word of mouth. Each participant reported using the internet daily to varying degrees. A chi square analysis was used to identify differences between the three age groups. They found that those between the ages of 21 and 25 had been victimized online the most at 66.7%, followed by those between the ages of 17 and 20 at 19.9%, and finally by those between 26 and 30 years old at 13.5%. This was also true for perpetrators of cyberbullying. Those in the age group between 21 and 25 years old reported perpetrating more incidents of cyberbullying. Binary logistic regressions were then used to determine if age was a significant predictor of cyberbullying but no significance was found based on the number of participants in the study. The authors stated that they feel this is due to the older age and maturity of the 26 to 30 year old group. They suggest that as young adults mature and become involved with more responsible activities, their involvement in cyberbullying will decrease (Balakrishnan, 2015).

Sevcikova and Smahel (2009) reviewed the questionnaire data of 2,215 individuals between the ages of 12 and 88 years old who were representative of the Czech population. The initial survey was part of the World Internet Project and was conducted by face-to-face interviews in 2008. The researchers asked them questions regarding their use of and exposure to aggressive behaviors online. They found that 20.1% of those between 16 and 19 years of age, 17.7% of those between 20 and 26 years old, 16.1% of those between 12 and 15 years of age, 15% of those age 50 and up, 11.1% of those between 36 and 49 years old, and 9.7% of those between 27 and 35 years of age were cyberbullied. Those between the ages of 12 and 26 years old were more likely to be victimized online than any other age groups. There was also a spike related to victimization among those in the 50 and over age group. Those between the ages of 12 and 19 years of age were most often the perpetrators. The combination of being both a victim and a perpetrator decreased with age but spiked again among the 36 to 49 year old age group. The researchers stated that this difference may be due to the advanced computer skills and increased internet usage of the younger age groups. They believe that the lack of online competency of the older age groups results in less experiences with and exposure to cyberbullying victimization (Sevcíkova & Smahel, 2009). Although the justification is different, this confirms the findings of Balakrishnan.

In 2015, researchers looked at the cyberbullying experiences of 519 undergraduate college students (Francisco, Simao, Ferreira, & Martins, 2015). These students were between the ages of 19 and 24 years old and completing degrees in a wide variety of topics. This is only a portion of the sample age that will be included in the current study. The Cyberbullying Inventory for College Students was used to assess all of their encounters with online aggression. It looked at four areas: cyberbullying victimization, cyberbullying perpetration, observing cyberbullying victimization, and observing cyberbullying perpetration. A significant difference was found regarding observing cyberbullying victimization and perpetration. Those who reported being 20 years of age and under were more likely to witness some form of cyberbullying. No significant differences were noted by age with regard to victimization and perpetration. Although no significant differences were found concerning victimization, those in the younger age group were still found to have more experiences with and exposure to cyberbullying. The authors did not suggest any rationale for this difference but it can be assumed to be similar to the reasoning indicated in earlier articles regarding adult age groups (Francisco et al., 2015)

Race. Our race and ethnicity can influence our views of the world and what we consider to be normal social practices. What is considered normal for one group might be considered odd by another (Zalaquett & Chatters, 2014). Each race may have certain customs that they consider important. These common

practices may connect them as a cultural group. While one race may value

individualism, another might emphasize connection for the greater good. While

one race may consider expressing yourself important, another might teach being

selfless and keeping your thoughts to yourself. While one race may stress

obedience, another might value rebelliousness. While one race may encourage

determination, another might emphasize hesitation to think things through

(Shapka & Law, 2013). All of these differences and distinctions add up to create

unique individuals in each racial group. Those peculiarities impact every aspect

of who we are and how we treat others. They can serve to connect us or divide

us. They can lift us up or tear us apart. This is why race was chosen as a

potential variable that may influence cyberbullying victimization. There is still

little research available regarding the connection between cyberbullying and

racial identity. What is available, gives conflicting views of the relationship

between the two variables. This study will add to the current literature that is

available regarding race and cyberbullying.

Zalaquett and Chatters (2014) collected survey data from 604 students at

a large, urban university in the southeastern United States. The students were

comprised of: 56% European Americans, 18% Asian Americans, 14% Hispanic

Americans, and 10% African Americans between the ages of 21 and 59 years

old. Paper surveys were distributed in seven undergraduate courses that were

part of the school's general curriculum but no extra credit or other incentive was

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provided. After informed consent was provide, the College Cyberbullying Survey

was utilized to gain information regarding the students' experiences with

cyberbullying. A series of Pearson's chi square tests were used to determine the

relationships between the included variables and cyberbullying. They found that

32% of the Asian Americans, 18% of the Hispanic Americans, 18% of the African

Americans, and 15% of the European Americans had been victims of

cyberbullying. Based on this data, Asian Americans are 4 times more likely to be

cyberbullied than African Americans, Hispanic Americans, and European

Americans. Asian Americans reported more incidents of bullying than any other

racial group. This suggests that one of the smaller racial groups included in the

study was the one that was most victimized. Despite the large percentage of

European Americans in the study (56%), Asian Americans (18%) were still more

likely to be victims of cyberbullying. From this study, it appears as if minority

racial groups experience cyberbullying more than individuals in the majority

group (Zalaquett & Chatters, 2014).

Kupczynski, Mundy, and Green (2013) used SurveyMonkey to gain

information from 361 high school students. The students attended either a large

urban high school in a large metropolitan area or a small rural high school in

South Texas. Parent permission was obtained and then the link to the online

survey were administered to students. The survey asked questions regarding:

demographics, general internet use, traditional bullying experiences,

cyberbullying experiences, and opinions regarding both types of bullying. A chi square two-way contingency table was used to determine whether students had been cyberbullied more often based on their ethnicity. A significant relationship was found between the two variables. The survey indicated that 38% of Caucasian students, 33% of African American students, and 23% of Hispanic students had experienced cyberbullying. The Caucasian students were 1.65 times more likely to be cyberbullied than the Hispanic students. The Caucasian students were also 1.92 times more likely to bully someone else online than the Hispanic students. Since the Caucasian students were in the majority group, this does not agree with the findings of Zalaquett and Chatters (2014). The researchers suggest that this difference is confounded by socioeconomic issues. The Caucasian students may have had more access to technology and more freedom to use the internet. Those in the minority group may not have the same resources available to them in their community. This study proposes that those in the majority racial group are cyberbullied more often than those in the minority racial group (Kupczynski, Mundy, & Green, 2013).

Another study conducted in 2015 (Rice, Petering, Rhoades, Winetrobe, Goldbach, Plant, Montoya, & Kordic, 2015) confirms the results found by Kupczynski, Mundy, and Green (2013). The researchers in this study attached a supplement to the 2012 Center for Disease Control and Prevention's Youth Risk Behavior Survey. The survey was conducted in the middle schools of the Los

Angeles Unified School District which included 1,185 students in the sixth through eighth grades. The supplement collected data on cyberbullying victimization and perpetration, technology use, and demographic variables. Nearly 5% of the students reported being a cyberbully while 6.6% indicated being victimized online and 4.3% responded to both categories. A univariable multinomial regression was conducted which showed that being White was positively associated with being a victim of cyberbullying. Being Black was negatively associated with being victimized online. White students were 3.6 times more likely to have experiences with cyberbullying by being a perpetrator and a victim than Latino students. Fewer Black students reported being victimized than Latino students. In this study, those in the racial majority group were more likely to be victims of cyberbullying than those in the minority group. The researchers suggest that this may be due to cultural differences regarding behavior and individualistic characteristics (Rice et al., 2015). There is research to support varying opinions regarding the relationship between cyberbullying victimization and race.

Socioeconomic Status

Socioeconomic status (SES) can be described as the combination of an individual's level of education, income, and occupation (Murray, Rodgers, & Frasier, 2012). This combination of variables indicate a person's level in society and access to resources. This can expose individuals to certain experiences or

situations as well as shield them from others. Socioeconomic status has been found to correlate with physical health, psychological health, and emotional health (Saeger, Adler, Bullock, Cauce, Liu, & Wyche, 2006). Those who report lower SES levels have significantly more health problems, suffer from higher rates of mental illness, and express more feelings of frustration and hostility than their counterparts with higher SES levels. It has been shown to have an impact on personality and stress levels (Saeger et al, 2006). Individuals who experience higher SES levels indicate more determination, increased feelings of hope, and lower levels of overall stress. Socioeconomic status impacts overall well-being and has a bearing on all aspects of life (Murray, Rodgers, & Fraser, 2012). This is why socioeconomic status was chosen as a potential variable of influence in relation to cyberbullying victimization. As individuals become adults and start their own lives they determine what their SES level will be, but as children and adolescents this is pre-determined by their parents. For the purposes of this study this variable will be assessed to include parental education level and family of origin income. This will be a more accurate representation of the true socioeconomic level of the participants.

Socioeconomic status has been shown to have a relationship with cyberbullying in high school students. In 2004, Stys (2004) examined the experiences of cyberbullying among three rural schools in the Ontario area. After principal and parent permission was obtained, 233 students between the ages of

14 and 18 were surveyed. The students were from rural, farming communities and were attending the ninth through twelfth grades. Paper formats of the Safe School Student Survey and Electronic Bullying Survey were used to assess experiences with the internet and traditional bullying as well as cyberbullying. Both surveys supplied respondents with very specific definitions of bullying and gathered information regarding experiences with technology and internet use. The study compared experiences with traditional bullying and cyberbullying among this population. A two way contingency table analysis was conducted to assess the impact of the demographic variables on cyberbullying victimization. Students who were members of families with higher socioeconomic status showed more experiences with cyberbullying than those from lower socioeconomic status. The author credited this to the increased use of the internet and technological devices for those who were in the higher SES category. Most of those in the lower SES category reported no way to access the internet regularly (Stys, 2004).

In 2015, Deniz (2015) found similar results when he surveyed 722 students between the ages of 11 and 15 who were attending sixth through eighth grade in Turkey. The schools and the students were sorted into low, middle, and high SES based on the income of the families attending the school. They were given the Cyber Bully/Victim Scale in a paper format to report their experiences with cyberbullying. The scale consisted of 19 questions regarding both

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perpetration and victimization of cyberbullying. Two separate three way

ANOVAs were conducted to check the effects of the demographic variables on

cyberbullying experiences. The researcher found that those students who came

from families of higher socioeconomic status reported the most experiences with

cyberbullying followed by those from the middle SES group and then the low

SES schools. The students in the high SES group also reported more incidents

of cyberbullying perpetration than any other SES schools. The author stated that

this is a result of their increased access to technological devices such as laptops

and smartphones. Those in the lower SES groups may not be able to afford

technological devices. It is also an outcome of their frequent utilization of the

internet. Those in the lower SES groups may not be allowed unrestricted access

to the internet because of other responsibilities (Deniz, 2015).

In 2010, researchers looked at the role socioeconomic status played in the

experiences with cyberbullying of adults. Akbulut, Sahin, and Eristi (2010) used

a popular online social media site in Turkey to access 1,470 individuals for their

study. The participants were placed in three age groups, those under 18 years

old, 18 to 25 years old, and 25 years and older. An online survey consisting of

28 Likert items was used to assess their experiences with cyberbullying

victimization but the term cyberbullying was never actually referenced.

Perpetration was not assessed during this survey but flaming, harassment,

cyberstalking, denigration, masquerade, outing, trickery, and exclusion were

addressed. Of those who participated, 56% reported at least one incident of online victimization. Socioeconomic status proved to be a significant predictor of cyberbullying victimization. Those in the high SES group reported more experiences of victimization followed by those in the low SES group and finally participants in the middle SES group. The low SES group did not vary significantly from either group but there was a significant difference between those in the high and middle SES groups. Further examination of the data revealed that those in the high SES category reported spending more time online and a higher frequency of internet use. Individuals in this group also looked at foreign websites more often, which was linked to greater experiences with cyberbullying. This article confirms the link between high SES and more frequent internet access which was proposed by the authors of the two previously discussed articles (Akbulut, Sahin, & Eristi, 2010).

Socioeconomic status has been shown to have a positive relationship with self-esteem. Higher socioeconomic status provides access to more resources which can create more opportunities for success. Being successful and feeling valuable results in higher levels of self-esteem (Rosenberg & Pearlin, 1978). Prominence is highly valued by many individuals in society. Having the prestige that comes with higher levels of socioeconomic status causes people to feel better about themselves and happier with their life which increases their self-esteem (Twenge & Campbell, 2002). Of course there are exceptions to this, but

it is true for the majority of individuals. Lower feelings of self-worth have been

noted in individuals who have lower levels of socioeconomic status. This can

also result in higher levels of depression and anxiety (Veselska, Geckova,

Gajdosova, Orosova, Dijk, & Reijneveld, 2009). Parental education has also

been shown to have an effect on self-esteem (Mossakowski, 2015). The higher

the parent's level of education, the higher the child's self-esteem. Typically those

from lower socioeconomic status have lower levels of education which would

suggest lower self-esteem as well. Mossakowski (2015) makes the claim that

self-esteem is a critical aspect of who we are that can be damaged by the

persistent stress of low socioeconomic status. It has been shown that the

combination of education, income, and occupation affect how individuals feel

about themselves and helps to establish their personal values. It impacts how

we interact and respond to others as well as what options are available

(Veselska et al., 2009). If one of these factors was influenced by cyberbullying

victimization, it would result in a variation in the other as well.

Socioeconomic status has been shown to have a significant relationship

with an individual's perceived locus of control. Those who have a lower SES

report a more external locus of control while those with a higher SES report a

more internal locus of control. When the data from two national surveys were

reviewed (the National Survey of Midlife Development in the United States and

the Health and Retirement Study) it was found that individuals from households

with a lower socioeconomic status expressed a more external sense of control (Ward, 2013). Individuals with a lower SES experience less sense of control in their lives. They feel as if there is no way for them to achieve more and due to outside forces, it is impossible for them to increase their SES (Lachman & Weaver, 1998). People who have a lower socioeconomic status often experience higher levels of stress and blame others for causing that additional strain. They feel as if their SES is out of their control and that uncontrollable circumstances have a strong influence over their lives (Murray, Rodgers, & Fraser, 2012). Individuals whose parents reported high socioeconomic status, including higher levels of education and income, exhibit a more internal locus of control (Flouri & Hawkes, 2008). People who have a higher socioeconomic status typically credit this to their own hard work and persistence. They may feel that they have been successful in spite of others or because they chose a different path. They assume that they control their own destinies and select their own SES (Flouri & Hawkes, 2008).

Self-Esteem

Self-esteem can be described as an individual's appraisal of their value, worth, or importance (Patchin & Hinduja, 2010). Some people feel their life has significant meaning and that they are valuable. Others see themselves as unimportant and are not confident about their impact or influence on the world (Chen, Gully, & Eden, 2001). Individuals with higher reported levels of self-

esteem place more significance on their lives. They see themselves as being important in their lives and to others. Their perception of their own value increases their success in many areas of life (Chung, Robins, Trzesniewski, Roberts, Noftle, & Widaman, 2014). Those with lower reported levels of self-esteem often do not see the meaning in their lives. They see themselves as being worthless and may even perceive themselves as a burden to others. Their view of themselves can result in few interactions or connections with others (Chung et al, 2014). There are a multitude of factors that can impact how individuals perceive their self-esteem including their life experiences and interactions with others. The transition to adulthood has been researched as a critical time of self-esteem development (Trzesniewski, Moffitt, Poulton, Donnellan, Robins, Caspi, 2006). This is a considerable time of change including going to college, finding employment, and possibly moving. These significant life events can be affected by experiences with bullying and cyberbullying (Trzesniewski et al, 2006). Level of self-esteem can impact how individuals see their lives and how they connect with those around them. How individuals perceive themselves influences all aspects of daily life. This is why self-esteem was chosen as a potential variable of influence in relation to cyberbullying victimization.

Individuals with high self-esteem have been shown to achieve more while attending college (Arshad, Zaidi, & Mahmood, 2015). These students tend to

work harder and procrastinate less often (Tan, Ma, & Li, 2015). They perform

better academically and are also more effective in the work place (Baumeister,

Campbell, Krueger, & Vohs, 2003). People who feel better about themselves

and their abilities work harder and more efficiently. They also exhibit higher

levels of persistence and better levels of self-regulation (McFarlin, Baumeister, &

Blascovich, 1984). People with high levels of self-esteem are more confident in

themselves and feel better able to handle the challenges that are presented to

them. According to self-reports, these individuals also form more close

relationships and feel like they have very satisfying social lives (Keefe & Berndt,

1996). They report feeling comfortable with themselves and this generalizes to

their relationships with other people. Research has shown that high self-esteem

is commonly linked with significantly higher levels of happiness. Individuals with

high self-esteem suffer less emotional distress and respond better to negative

feedback or rejection (Brown, 2010). This indicates that these individuals

experience lower levels of depression and utilize more positive coping skills

(Baumeister et al, 2003). Overall, individuals with high self-esteem exhibit better

performance, are more persistent, self-regulate better, and establish stronger

social connections than individuals with low self-esteem. Having higher levels of

self-esteem is linked to general well-being and life satisfaction. There are some

drawbacks to having high self-esteem as well.

When individuals have a high self-esteem that is unstable it can produce negative results. Having an unstable self-esteem means that you may portray a high self-esteem explicitly but often feel as if you have a low self-esteem implicitly. The two levels of self-esteem are constantly at battle to determine which one is the true identity (Baumeister, Campbell, Krueger, & Vohs, 2003). Typically an unstable self-esteem results in a narcissistic personality (Zeigler-Hill, 2005). Individuals with this type of high self-esteem may seem charming initially, but have difficulty maintaining long-term relationships (Baumeister et al., 2003). They also exhibit more favoritism for those who are similar to themselves, which can create issues with prejudice or discrimination. Those with this type of high self-esteem are more likely to retaliate with aggression when their pride is wounded (Meon, Tobin, Corby, Menon, & Hodges, 2007). They may also begin to see aggression as a positive response to others that they see as a threat. Individuals with an unstable high self-esteem are more verbally defensive and tend to be stubborn in their opinions (Kernis, Lakey, & Heppner, 2008). Unstable high self-esteem has also been shown to encourage experimentation with sexual activity and drug use for adolescents (Baumeister, 2003). Having an unstable high self-esteem has been linked to depressive attributional style, nervousness, and impaired physical health (Schroder-abe, Rudolph, & Schutz, 2007). It has also been connected with paranoia and paranoid beliefs (Thewissen, Myin-Germeys, Bentall, Graff, Vollebergh, & Os, 2007). Researchers believe that

attempts to regulate a dysfunctional self-esteem may be the cause of this

psychological concern. Individuals with an unstable high self-esteem tend to

experience more negative symptomology and behavior similar to those with low

self-esteem. There are two sides to having a high level of self-esteem.

Individuals with low self-esteem have been shown to exhibit higher levels

of externalizing problems like antisocial behavior and aggression (Ferguson &

Horwood, 2002). They often become frustrated with their lack of confidence in

themselves and feel easily overwhelmed by the events that occur in their life.

Those with low self-esteem are more likely to give up when faced with struggles

in their academic or occupational life (Baumeister, Campbell, Krueger, & Vohs,

2003). This can result in a lack of long-term success or an increase in missed

opportunities over time. They often have a high sense of failure and do not see

themselves as being capable individuals (McFarlin, Baumeister, & Blascovich,

1984). A lack of self-assurance in their abilities can create an inability to feel

confident in relationships with others and causes them to have fewer close

connections to others (Murray, 2005). Individuals with low self-esteem are also

less likely to accept support and help from others in their life (Marigold, Cavallo,

Holmes, & Wood, 2014). They respond more positively when others validate

their negative feelings instead of trying to reframe the situation. They report

higher levels of mental health and physical health impairments as adults

(Trzesniewski, Moffitt, Poulton, Donnellan, Robins, & Caspi, 2006). Adolescents

who reported low levels of self-esteem were more likely to suffer from depression 20 years later as adults (Steiger, Allemand, Robins, & Fend, 2014). The effects of low self-esteem are long lasting. Overall, individuals with low self-esteem exhibit more externalizing problems, give up easily when frustrated, have fewer close relationships, and exhibit more mental and physical health impairments. Having a low level of self-esteem has been linked to many negative life experiences and outcomes.

Patchin and Hinduja (2010) examined the impact of cyberbullying on self-esteem levels in middle high school students. They used a random sample of 1,963 students who were in the sixth through eighth grades. They were from 30 middle schools in one of the largest school districts in the United States. Rosenberg's Self-Esteem Scale was used to assess the students' level of self-esteem. Cyberbullying victimization and offending were also assessed using a paper based survey method. The survey was administered to students by teachers in their peer conflict classes, which were a required component of the educational program. A series of least squares regression models were used to determine if there was a significant relationship between cyberbullying experiences and level of self-esteem. They found that individuals who reported being victims and bullies of cyberbullying both exhibited lower levels of self-esteem than their same age peers. This difference was more significant for individuals who were victims of cyberbullying than perpetrators. This was true

even after the researchers controlled for the demographic variables. This study provided data to show that low self-esteem is related to cyberbullying victimization. It is uncertain whether it is an outcome of this victimization or if it makes individuals more susceptible to being victims. The researchers went on to state that low self-esteem is one of the primary predictors of academic and behavior problems among adolescents (Patchin & Hinduja, 2010).

In 2013, researchers found similar results to those of Patchin and Hinduja (2010). Chang, Lee, Chiu, Hsi, Huang, and Pan (2013) surveyed 2,992 tenth grade students in Taiwan. These students came from 102 classrooms at 26 high schools. The questionnaires they were given assessed cyberbullying, cybervictimization, self-esteem, depression, school bullying, school victimization, and gathered demographic information. A twelve item survey was created to assess cyberbullying and cybervictimization. The Rosenberg Self-Esteem Scale was used to evaluate the participants' level of self-esteem. They found that 18.4% of students had been cyberbullied, 5.8% had cyberbullied others, and 11.2% had participated in both manners. A univariate analysis was run to examine the self-esteem of students who had some type of involvement with cyberbullying. Students who had experiences with cyberbullying as either a bully or a victim reported lower rates of self-esteem than those who did not. This was still true after controlling for demographic variables. Individuals who were both bullies and victims had the lowest rates of self-esteem out of all groups. Victims

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of cyberbullying had lower levels of self-esteem than students who reported being bullies. Students who were bullies had lower levels of self-esteem than those who had no experiences with cyberbullying but they were found to not be significantly lower. The self-esteem level of cyberbullies is still considered a controversial topic among researchers (Chang, Lee, Chiu, His, Huang, & Pan, 2013)

Brack and Caltabiano (2014) examined the impact of cyberbullying on self-esteem levels in young adults. A convenience sample of 164 adults between the ages of 17 and 25 was examined. They were recruited through their attendance at an Australian university and via social media websites. An online survey was administered to these individuals to assess their experiences and history with cyberbullying as well as their level of self-esteem. The Revised Cyber Bullying Inventory and the Rosenberg Self-Esteem Scale were utilized for this purpose. The Revised Cyber Bullying Inventory assessed their experiences as a victim and a perpetrator of cyberbullying. Of those, 117 individuals reported being victims of cyberbullying during the last twelve months while 119 reported bullying someone else during the past year. A one way ANOVA was conducted to compare the level of self-esteem among the participants. The researchers found that individuals indicated the same level of self-esteem regardless of whether they had been a victim or a perpetrator of cyberbullying. These levels were within the average self-esteem range of people in this age group. There

were no significant differences between the self-esteem of individuals who had experiences with cyberbullying versus those who did not. There were no reports of significantly high levels of cyberbullying in this study, which may have slightly skewed the results that were found. The researchers suggest that the lack of high levels of cyberbullying may have caused there to be little variance in the level of self-esteem (Brack & Caltabiano, 2014). These results do not support the findings of Patchin and Hinduja (2010).

Garcia, Perez, Gonzalez, and Perez (2015) found similarly confounding results. In 2015, these researchers collected data from a sample of 3,180 students in 16 schools located in Spain. The students attended Compulsory Secondary Education and were between the ages of 11 and 19 years old. Information was obtained regarding their demographic variables and their use of electronic communication devices. The participants also completed surveys regarding their experiences with cybervictimization and various cybervictimization risk factors. The cybervictimization questionnaire included 26 items that assessed whether the students had experience with four different types of online aggression: visual, exclusion, impersonation, and written-verbal. The risk factor analysis was made up of 34 items and looked at their level of support at school, offline school victimization, whether they had repeated a course, their self-esteem, shyness, social anxiety, and habits with electronic communication devices. Students were informed of the purpose of the study and then completed

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the paper questionnaire in their classroom. Responses were divided into three categories: no-cybervictimization, occasional cybervictimization, and severe cybervictimization. A multinomial logistic regression analysis was conducted to identify the significant risk and protective factors for both levels of victimization. The researchers found that high self-esteem was a protective factor for respondents who were only occasional victims of cyberbullying. It was, however, not a significant protective factor for those who suffered severe cybervictimization. This study shows that high self-esteem helps to buffer individuals from the harsh effects of cybervictimization but only in limited amounts. For individuals who are subjected to frequent experiences with cyberbullying victimization, high self-esteem was not a strong enough factor to help reduce the impact (Garcia, Perez, Gonzalez, & Perez, 2015).

Another study conducted in 2015 by Brewer and Kerslake (2015) found results that more align with those of Patchin and Hinduja (2010). These researchers surveyed 90 students from Further Education colleges in England. These individuals were between the ages of 16 and 18 years old. A survey packet was utilized which included the Revised Cyberbullying Inventory, the UCLA Loneliness Scale, the Toronto Empathy Questionnaire, and the Rosenberg Self-Esteem Scale. The Revised Cyberbullying Inventory included questions related to both victimization and perpetration during the last six months. All of these assessments were completed online. The researchers found that 16.22%

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of the students reported being victims of cyberbullying and 13.54% reported

being perpetrators of cyberbullying. Pearson's correlations were run to examine

the relationship between experiences with cyberbullying and the other

psychological variables. Cyberbullying victimization and cyberbullying

perpetration were both negatively related to self-esteem. Multiple regressions

were conducted to further analyze the data. Self-esteem served as a significant

predictor of victimization and perpetration of cyberbullying. This indicates that

those with low self-esteem were much more likely to report high rates of being

victimized online as well as bullying others. The authors suggest that those with

low self-esteem may be more vulnerable to attacks from others online. They also

stated that those with low self-esteem may be more drawn to utilize online acts of

aggression. The anonymity of the internet may allow them a sense of catharsis

or control that may not be achievable in their day to day lives (Brewer &

Kerslake, 2015). The results regarding the connection between cyberbullying

and self-esteem are split in both directions among the current literature available.

Previous areas of study have revealed several connections among locus

of control and self-esteem (DeMan & Devisse, 1987). When examining the

impact of visual impairment, it was found that individuals who had lower levels of

self-esteem along with a perceived external locus of control reported higher rates

of depression than those who did not have this particular combination of

variables (Papadopoulosa, Paralikasb, Baroutia & Chronopoulouc, 2014). Not

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only did they feel that they were not valuable because of their vision impairment but they also felt that they had no control over their vision loss and the effect it had on their lives. A study looking at body dissatisfaction found that individuals who were unhappy with their body image reported lower levels of self-esteem and a more external locus of control (Pokrajac-Bulian & Zivcic-Becirevic, 2005). They were unhappy with how they looked at felt as if they could not control their own body image. Research has also shown that college aged adults with low self-esteem and an external locus of control feel more alienated from others and socially isolate themselves. They have a tendency to see the world as unfriendly and have difficulty trusting and connecting with those around them (DeMan & Devisse, 1987). Low self-esteem and a perceived external locus of control have a tendency to correlate with one another and result in significant negative impacts for individuals who have this specific combination of variables. Variance in one area can impact the other.

Locus of Control

Locus of control can be described as an individual's belief regarding whether they have control over the outcome of events that occur in their life (Rotter, 1966). Some individuals believe that they control every aspect that influences their life and that any positive events that occur in their life are the direct result of their own actions. Others feel that they are powerless to control their own lives and any positive events that occur are the result of luck or fate

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(Rotter, 1966). People with a more internal locus of control believe they control the events that affect their life. They feel as if they control the outcome of events in their life. Everything that happens to them serves a purpose and is the direct result of their own doing (Ye & Lin, 2015). Those with a more external locus of control believe that they have little control over the events that affect their life. They feel as if outside people or the environment control the outcome of events in their life. They believe in concepts like fate, chance, or luck that impact their daily living (Ye & Lin, 2015). Perceived locus of control can determine how individuals identify themselves and see their experiences. It determines how they interact with those around them and their environment. Our perceived locus of control can determine how we respond to things that occur in our life as well as how much effort we put into our activities. It impacts our overall attitude and behavior (Ye & Lin, 2015).

Individuals with an internal locus of control have been shown to be more creative and more skilled at solving problems (Burroughs & Mick, 2004). They are able to manipulate their surroundings more effectively. They are also more adept at using technology (Mahatanankoon & O'sullian, 2008). Individuals with a perceived internal locus of control are more comfortable utilizing tools such as the internet because they know they are the guiding force. They have been shown to achieve better grades in college and perform better academically (Brandt, 1975). They are more confident in themselves and their abilities.

Individuals with an internal locus of control report higher levels of happiness and life satisfaction (Argyle, 2001). This may be because these individuals tend to focus more on their successes and repress their failures (Rotter, 1966). They also pay less attention to the negative events that occur in their life (Argyle, 2001). For this reason, those with a perceived internal locus of control cope more effectively with stress and are more resilient. They also report higher levels of job satisfaction and performance (Kutanis, Mesci, & Ovdur, 2011). Overall, individuals with an internal locus of control display more signs of creativity, are happier, less stressed, more successful, and exhibit a better general well-being. It appears that having a perceived internal locus of control has many benefits. Individuals with an external locus of control have been shown to have a more negative view of computers (Manhatanankoon & O'Sullivan, 2008). They do not feel in control while using the internet or participating in social media. Those with a perceived external locus of control indicate a lower overall sense of well-being and higher levels of anxiety (Ye & Lin, 2015). They feel as if things in their life could change at any moment based on the behavior or influence of others. They are also more likely to report feelings of loneliness and sadness on a regular basis (Hojat, 1982). This could be because they tend to focus on the negative events that occur in their life and their inability to control or predict those occurrences (Argyle, 2001). Individuals with an external locus of control have trouble adjusting to change, are more passive, and have poor coping skills. They

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are not very resilient and tend to become overwhelmed more easily. They have also been shown to report lower levels of job satisfaction and higher levels of mental and physical health concerns (Kutanis, Mesci, & Ovdur, 2011). This could be due to the increased stress and worry that comes with feeling as if your life is out of your control. Overall, individuals with a perceived external locus of control have a negative view of computers, experience feelings of sadness more often, display more emotional distress, and exhibit difficulty with their general well-being. There are several disadvantages to having an external locus of control. The lack of believed impact and control over your own life seems to be upsetting and difficult to overcome.

There is little research out there regarding the relationship between locus of control and any form of bullying. In 2013, Atik and Guneri (2013) examined the locus of control ratings of 742 middle school students in Turkey. The participants were between 11 and 15 years of age and completed a paper version of the survey packet in class after principal permission was obtained. The survey contained measures to assess demographic information, experiences with bullying and victimization, locus of control, self-esteem, parenting style, loneliness, and academic achievement. The Olweus Bully/Victim Questionnaire was used to examine experiences with bullying. Of all the students, 4.6% reported being a bully, 21.3% reported being a victim, 6.5% reported being both, and 67.7% had no experiences with bullying. A multinomial logistic regression

analysis was run to determine the relationship that the various factors had on experiences with bullying. The researchers found that an external locus of control was connected with being a bully only and a victim only more than being both or having no experiences with bullying. It was suggested that this is because those with an external locus of control do not connect their own behavior with consequences or reinforcement. For that reason, they make little effort to control their own behavior or respond to the behavior of others (Atik & Guneri, 2013).   Although this study addressed traditional bullying rather than cyberbullying, we can assume that the results would be similar for both forms of bullying.

One study examined the connection between cyberbullying and locus of control ratings. Fredstrom, Adams, and Gillman (2011) examined the impact of cyberbullying on self-esteem, social stress, anxiety, depressive symptoms, self-efficacy, and locus of control. Researchers looked at 802 ninth grade students from four separate high schools in the southeastern part of the United States. Each student completed a survey regarding their demographic information and their experiences with cyberbullying. They were then asked to complete a Behavioral Assessment System for Children: 2nd Edition questionnaire to gain insight into their psychological and behavioral functioning. It was found that high levels of cyberbullying were linked to low rates of self-esteem and self-efficacy along with high rates of social stress, anxiety, depressive symptoms, and locus of

control. This high score on the locus of control scale indicates that these

individuals have a more external locus of control and feel as if they have little to

no control over the outcome of events in their day-to-day life. This was most

notable for incidents of computer based cyberbullying like social media posts,

emails, and messages in chat rooms. The authors suggest that this is due to the

anonymity associated with these methods of contact. Those who have an

external locus of control are more susceptible to this form of bullying. They feel

as if there is no way to stop the perpetrator or avoid the negative behaviors. This

study confirms that adolescents who have experienced cyberbullying do have a

perceived external locus of control (Fredstrom, Adams, & Gillman, 2011).

Hypothesis

Based on the current literature review, several hypotheses can be made

regarding the results related to the demographic variables of the current study.

With regard to gender, it is hypothesized that females will be more likely to be

victims of cyberbullying than males. This is due to the anonymity of cyberbullying

which causes it to be seen as a more indirect form of bullying. This is similar to

relational, emotional, and psychological bullying, which are more common among

females. With regard to age, it is hypothesized that those who are in the younger

age groups of this study will report more experiences with cyberbullying

victimization than those who are in the older age groups. This is due to the

heightened maturity level and involvement with more responsible endeavors of

those in the older age groups. It is also believed that as adults grow older they grow wiser and lose interest in more trivial activities like cyberbullying. With regard to race, it is hypothesized that those in the minority group will experience more incidents of cyberbullying.   Despite conflicting views in the current literature, it seems as if those in the minority group would be more ostracized than those in the majority group. This is due to the fact that they are different from those around them and may not be well accepted by the population that outnumbers them. With regard to socioeconomic status, it is hypothesized that those with a higher level of socioeconomic status will report higher rates of cyberbullying victimization than those at lower levels of socioeconomic status. This is due to their increased exposure to technology and access to the internet. Their higher socioeconomic status provides contact with things that may not be available to those in the lower socioeconomic levels.

Based on the current literature review, several hypotheses can be made regarding the results related to the personality variables of the current study. With regard to self-esteem, it is hypothesized that those with a lower level of self-esteem will report higher rates of cyberbullying victimization. This is due to their lack of confidence in themselves and possible utilization of online relationships more so than individuals with higher levels of self-esteem. Engagement in connections with others online can open them up for more incidents of victimization. With regard to locus of control, it is hypothesized that those with an

external locus of control will report higher rates of cyberbullying victimization than those with an internal locus of control. This is due to the lack of control that comes with the anonymity of cyberbullying. Individuals with an external locus of control will feel unable to respond to or stop the experiences from occurring. It is hypothesized that individuals who report a higher number of experiences associated with cyberbullying will tend to be: female, younger, in the racial minority group, report prior experiences with bullying prior to enrollment, have a family of origin with higher socioeconomic status, have lower levels of self-esteem, and will maintain attitudes associated with having an external locus of control.

Purpose

The purpose of this study is to determine to what degree college students' demographic background, including age, gender, and race, along with the socioeconomic status of their family of origin, locus of control, and self-esteem predict the variance among their reported experiences as victims of cyberbullying. The demographic background, socioeconomic status, locus of control, level of self-esteem, and experiences with cyberbullying will be assessed for all subjects. The collected data will be examined to look for the contribution of the independent variables (demographic background information, socioeconomic status, locus of control, self-esteem) to the dependent variable (reported experiences as the victim of cyberbullying). These findings will assist in

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identifying potential predictive criteria for reports of victimization. These variables

will help to create a profile for individuals who may be more likely to be victims of

cyberbullying. It could then be possible to provide early steps for intervention for

those who exhibit identified core variables associated with victimization. If these

results are obtained, early intervention methods may be established to reduce

the incidents of cyberbullying and diminish its negative consequences. Potential

areas of intervention could include self-esteem and locus of control if these

variables contribute significantly to cyberbullying experiences. Intervention might

then include providing instruction to those who are in the high risk group on

methods for increasing their self-esteem and having a positive self-image. It

might also include training on methods for maintaining a more internal locus of

control and placing less emphasis on the outside influences of others. Based on

this study other routes for providing intervention may also emerge. The goal of

this study is to identify individuals who are more likely to be victims of

cyberbullying and provide early intervention services to decrease their likelihood

of being victimized.

CHAPTER THREE

Methods

<u>Participants</u>

The data for the current study came from an online survey distributed to a convenience sample of adults between 18 and 50 years of age. These adults were enrolled in sixteen different colleges across the United States. This age range was able to capture traditional and non-traditional students as well as those who are in undergraduate and graduate programs. The participants' level of education was assessed in the demographics questionnaire and responses were sorted accordingly to examine any possible trends in this information. Students will be recruited using the online SONA system, undergraduate class announcements, graduate class announcements, professors at other colleges, and social media websites. There were 201 surveys completed to ensure significant results in the data obtained.

Survey access was provided to multiple colleges in the area to include a variety of students with diverse academic areas of interest. Interested students were able to read a brief description of the study and then complete the survey online via an anonymous survey system. Participants were provided with informed consent regarding the purpose and risks of the study to ensure that their ethical rights were maintained. They completed the personality

questionnaires first and ended with the demographic questionnaire.

Demographic information was collected on all participants to add to the current

literature regarding cyberbullying among this age group. By obtaining data on

individuals of various ages, socioeconomic statuses, races, ethnicities, and

genders, information can used to expand on the current understanding and

impact of cyberbullying. The data was sorted by collection site to identify any

potential influence that setting may have on cyberbullying experiences.

<u>Dependent Variables</u>

There is one dependent variable present in the current study:

cyberbullying. Cyberbullying is defined as a deliberate and repeated act of

aggression that is committed using an electronic form of contact (Langos, 2012).

The specific behaviors that were included are: public humiliation, malice,

unwanted contact, and deception. Examples of these include: posting an

embarrassing photo of someone online, threatening others with violence, sending

sexual advances to someone, or pretending to be another individual online. This

was evaluated for only the last twelve months of the participant's life. The

information gathered related to participants' reports of perceived cyberbullying

experiences. This variable was assessed using the Cyberbullying Experiences

Survey. A specifier was added to each section on the survey to determine if the

indicated item was a result of direct, indirect, or both forms of cyberbullying. This

created the ability to analyze the impact of anonymity on cyberbullying experiences.

Independent Variables

There are six independent variables present in the current study: locus of control, self-esteem, socioeconomic status, age, gender, and race. Locus of control is defined as an individual's perceived control over the outcome of events that occur in their life. People with a more internal locus of control believe they control the events that affect their life. Those with a more external locus of control believe that they have little control over the events that affect their life (Ye& Lin, 2015). The participant's perceived locus of control was evaluated using Rotter's Locus of Control Scale. High scores reflect an external locus of control while low scores reflect an internal locus of control. Self-esteem is defined as an individual's appraisal of their value, worth, or importance. Individuals with higher reported levels of self-esteem place more significance on their lives. Those with lower reported levels of self-esteem often do not see the meaning in their lives (Chen, Gully, & Eden, 2001). The participant's identified level of self-esteem was evaluated using Rosenberg's Self-Esteem Scale. High scores reflect high self-esteem while low scores reflect low self-esteem. Socioeconomic status is defined as a combination of parental level of education and family of origin income. High socioeconomic status was identified as individuals whose parents have a high level of education and a high level of

income. Low socioeconomic status was identified as individuals whose parents

have a low level of education and a low level of income (Saeger, Adler, Bullock,

Cauce, Liu, & Wyche, 2006). Based on information provided by the United

States Census Bureau, family of origin income was divided into three levels, low,

middle, and high. Those in the low income level are typically considered to be

under the poverty line and bring in a yearly amount of $29,999 per household.

Those in the middle income level are considered to be in the middle class and

bring in a yearly income between $30,000 and $99,999. Those in the high

income level are considered to be wealthy and bring in a yearly income greater

than $100,000 (US Census, 2010). This variable was assessed using the

Demographics Questionnaire. This questionnaire also assessed the participant's

age, gender, and race.

Data Collection

An online survey was utilized to gather information from participants. The

surveys were administered electronically. No paper surveys were collected. The

survey collected demographic information, assessed socioeconomic status,

determined experiences with cyberbullying, measured perceived locus of control,

and evaluated level of self-esteem. The demographics questionnaire was

completed last to avoid any potential bias based on this information. Participants

had choices in using their cell phone, tablet, computer, or other electronic

devices to complete the survey. Surveys were open to complete in various

settings at any time of the day. The entire survey package only took between 20 to 30 minutes to complete.

The system, Qualtrics, was used for creating and administering to participants. This online survey system was developed in 2002 and has been used by more than 1.8 million users over the last 13 years. There are typically over 250,000 projects open at any point and over 1,000,000,000 surveys were sent last year alone (www.qualtrics.com). It is available worldwide in multiple languages and has safeguards in place to ensure the confidentiality of survey data. These include: high-end firewall systems, regular system scans for vulnerabilities, redundant hardware, nightly information backups, and encryption security for all transmitted data. This system collected and archived the participants' responses to the survey so that they could be analyzed for the purposes of this study (www.qualtrics.com).

Measures

Cyberbullying Experiences Survey. Experiences with cyberbullying were assessed using the Cyberbullying Experiences Survey (Doane, Kelley, Chiang, & Padilla, 2013). This questionnaire consists of two sections: bullying victimization and bullying perpetration. The bullying victimization section includes 21 items and the bullying perpetration section includes 20 items. These scales examine malice, public humiliation, unwanted contact, and deception in cyberbullying. Each question allows the participant to respond on a 6-point scale indicating

whether the incident has occurred never, less than a few times a year, a few

times a year, once or twice a month, once or twice a week, and almost every day

(Bauman & Baldasare, 2015). Responses reflect participants' reports of

perceived experiences with cyberbullying during the past year. A specifier was

added to each section to assess whether the indicated items were a result of

direct, indirect, or both forms of cyberbullying. This created the ability to analyze

the impact of anonymity on cyberbullying experiences.   Cronbach's alpha

coefficients for the survey range from .77 to .94 indicating relatively high internal

consistency for the measurement tool (Bauman & Baldasare, 2015). This survey

takes about 10 minutes to complete. Data on this variable was collected first.

Rosenberg Self-Esteem Scale. Participants' level of self-esteem was measured

using the Rosenberg Self-Esteem Scale (Gray-Little, Williams, & Hancock,

1997). This scale consists of 10 items used to assess the participants' general

level of self-esteem. Each of the ten items allow the participant to respond on a

4-point scale indicating whether they agree, strongly agree, disagree, or strongly

disagree with what the statement indicates (Gray-Little et al., 1997). Half of the

items include positively worded statements while the other half contain negatively

worded statements. The pattern of responses indicated by the participants,

reflect whether they experience high or low levels of self-esteem. High scores

reflect high self-esteem while low scores reflect low self-esteem. Previous

studies have reported Cronbach's alpha coefficients ranging from .72 to .88

indicating relatively high internal consistency for this scale (Gray-Little et al., 1997). This survey takes about 5 minutes to complete. Data on this variable was collected second.

Rotter Internal-External Locus of Control Scale. The perceived locus of control of each participant was assessed using the Rotter Internal-External Locus of Control Scale (Ye & Lin, 2015). This scale consists of 23 items used to assess whether the participant thinks that situations and events are under their own control or under the control of external influences. Each item provides two statements and allows participants to choose which one they feel is more accurate (Ye & Lin, 2015). Half of the statements reflect internality while the other half reflect externality. The pattern of responses indicated by the participants reflect whether they exhibit a more internal or external locus of control. A high score indicates a more external locus of control while a low score indicates a more internal locus of control. Research has reported a Cronbach's alpha coefficient of .71 indicating good internal consistency (Ye & Lin, 2015). This survey takes about 5 minutes to complete. Data on this variable was collected third.

Demographics Questionnaire. The demographics questionnaire is a short survey consisting of 15 multiple choice questions. It assesses the participants' gender, age, marital status, education, their parents' education, family of origin income, employment, ethnicity, and race. The information regarding age, gender, and

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race was assessed as a variable impacting cyberbullying variance. This questionnaire also provided data regarding the socioeconomic status of the participants' family of origin including parental income and education level. The participants' education level was used to sort responses into undergraduate and graduate level to examine any trends that may apply. The students' current location was also assessed to explore any potential variance that may occur by region. This survey takes about 5 minutes to complete. Data on this variable was collected last to avoid any potential bias.

<u>Procedure</u>

Participants for the study were recruited using the online SONA system, undergraduate class announcements, graduate class announcements, professors at other colleges, and social media websites. Participation was voluntary and a thorough informed consent was provided prior to beginning the survey. The informed consent provided information regarding the purpose and risks of the study to ensure that all ethical rights were maintained. Participants had to agree to these terms before they could complete the survey packet. The survey was administered on Qualtrics, which allowed access at any time of day via multiple formats. This survey was done through self-report to gain adequate information free of researcher bias. This also allowed the utilization of the insight abilities of adult participants. Students completed the survey packet in the following order: the Cyberbullying Experiences Survey, the Rosenberg Self-

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Esteem Scale, the Rotter's Internal External Locus of Control Scale, and the demographics questionnaire. The survey packet took between 20 and 30 minutes to complete entirely. Individuals who completed the survey were then thanked for their participation and valuable information. The information was stored in Qualtrics until it could be reviewed and analyzed.

Research Design

A correlational design using a forced entry multiple regression analysis was used to look for the contribution of the independent or predictor variables to the dependent or criterion variable. This assessed if the dependent variable (cyberbullying experiences) could be predicted from the independent variables (locus of control, self-esteem, socioeconomic status, age, gender, race, and family structure). With a forced entry analysis all of the independent variables are entered into the equation at the same time to determine their relation without the influence of the other available variables. This is typically done when it is not clear which independent variables will result in the best prediction of the dependent variable. Correlations were also be conducted to further examine the interactions of these variables. The data had the ability to also be sorted by participant level of education and current location to examine any potential instances of variance. Information regarding perpetrator anonymity was also assessed using a specifier added to each section on the Cyberbullying Experiences Survey to determine if the indicated items were the result of direct,

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indirect, or both forms of cyberbullying. These analyses identified whether the

independent variables including age, gender, race, socioeconomic status of their

family of origin, locus of control, and self-esteem predict the dependent variable

or the variance among college students' reported experiences as victims of

cyberbullying.

CHAPTER FOUR

Results

Descriptives and Frequencies

Survey access was provided online to the public from August 30, 2016, to

January 25, 2017. During that five month time span, a total of 201 responses

were recorded. The majority of respondents were female versus male (See

Table 1). Respondents were primarily between the ages of eighteen and twenty-

three while some were older in age (See Table 1). A larger portion of

participants had never been married, though some were currently married or had

been divorced (See Table 3). Despite asking only college students to participate,

some surveys were completed by individuals who had never attended college.

One individual indicated that they had not finished high school and their scores

were discarded and omitted for any statistical calculations. There were 19

respondents who reported graduating from high school, but did not indicate that

they were attending college. Those scores were included in all calculations

under the conclusion that these individuals were of age to attend college but had

chosen not to do so at this time. The purpose of the study was to examine

incidents of cyberbullying victimization among college age adults. This does not

dictate that they must be currently enrolled in college to participate. The majority

of respondents were at the undergraduate level versus those who were pursuing

advanced degrees (See Table 3). Most participants reported that their father did

not obtain a college degree while a small amount indicated that he obtained

some sort of degree at the college level (See Table 2). Similarly, the majority of

respondents indicated that their mother did not obtain a college degree but a

higher percentage of mothers did obtain some type of degree at the college level

compared to fathers (See Table 2). This indicates that most participants were

first generation college students. The majority of respondents had a family of

origin income in the middle income level ($30,000 to $99,999) followed by the

high income level ($100,000 and up) and then the low income level (under

$29,999) (See Table 2). This indicates that the most of the participants were in

the middle class. A larger portion of the participants were students but some

were currently employed while a small group were not working at all (See Table

3). Most participants reported currently being in the low income level followed by

the middle income level and then the high income level (See Table 3). A larger

portion of respondents were Caucasian but some reported being in various

minority racial groups (See Table 1). The majority of participants were not

Hispanic or Latino (See Table 1). Students at Stephen F. Austin State University

represented the largest group of responses followed by Northwestern State

University students and then various other college campuses (See Table 3).

Overall, the study sample consisted of primarily single, Caucasian, females, who

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were first generation undergraduate college students having lower

socioeconomic status in their family of origin.

Table 1

Survey Participant Demographic Information Sorted by Independent Variables

Participants' Demographics	Frequency	Percentage
Sex		
Male	24	12.6
Female	167	87.4
Age		
18-20 Years	60	31.4
21-23 Years	65	34
24-26 Years	19	9.9
27-29 Years	22	11.5
30-32 Years	8	4.2
33-35 Years	2	1.0
36-50 Years	15	7.9
Race		
Caucasian	146	75.6
Asian	2	1
African American	26	13.5
Hispanic	10	5.2
Native American	2	1
Other	7	3.6
Ethnicity		
Hispanic	11	5.8
Not Hispanic	180	94.2

Table 2

Survey Participant Demographic Information Sorted by Variables Used to Calculate Overall Socioeconomic Status

Participants' Demographics	Frequency	Percentage
Father Education		
Below 8th Grade	7	3.6
High School, No Diploma	18	9.4
High School Graduate	67	34.9
One Year of College	22	11.5
Some College, No Degree	19	9.9
Associate Degree	13	6.8
Bachelor's Degree	35	18.2
Master's Degree	3	1.6
Professional Degree	7	3.6
Doctorate Degree	1	0.5
Mother Education		
Below 8th Grade	1	0.5
High School, No Diploma	6	3.1
High School Graduate	46	23.8
One Year of College	25	13
Some College, No Degree	23	11.9
Associate Degree	36	18.7
Bachelor's Degree	30	15.5
Master's Degree	20	10.4
Professional Degree	4	2.1
Doctorate Degree	2	1
Family Income		
Under 29,999	27	14.1
30,000 to 99,999	117	69.4
Over 100,000	47	24.6
Socioeconomic Status		
Low	72	38.51
Middle	98	52.4
High	17	9.09

Table 3

Survey Participant Demographic Information Sorted by Remaining Variables

Participants' Demographics	Frequency	Percentage
Marital Status		
Married	47	24.5
Divorced	9	4.7
Unmarried	13.6	70.8
Current Income		
Under 29,999	92	48.7
30,000 to 99,999	78	41.3
Over 100,000	19	10.1
Employment		
Employed	58	30.1
Self-Employed	4	2.1
Out of Work but Looking	4	2.1
Out of Work but Not Looking	3	1.6
Homemaker	3	1.6
Student	120	62.2
Retired	1	0.5
Education Level		
Below 8th Grade	1	0.5
High School Graduate	19	9.8
One Year of College	26	13.5
Some College, No Degree	68	35.2
Associate Degree	16	8.3
Bachelor's Degree	51	26.4
Master's Degree	12	6.2
College Location		
Louisiana	97	48.3
Texas	86	42.8
Other	18	8.9

All variables were normally distributed. They presented a linear

relationship. None of the variables were collinear. For self-esteem the results

indicate a normal distribution (*Skeweness* = .32*SE*=.17; *Kurtosis* =-.09, *SE*=.35)

The only variable that violates the normality distribution is CVB total by indicating

a kurtosis of 9.09 (SE= .35) but a normal skeweness (2.31; SE=.176). Although

there is a violation of the assumption of the cyberbullying variables that is

expected as the majority of people have low levels of cyberbullying. In terms of

analysis, regression analyses have been shown to be robust to high levels of

kurtosis. Therefore, no modifications of this variable was performed

The answers reported on the Cyberbullying Experiences Survey were

converted into a numerical system to aid in statistical analysis. Each question in

the survey presented six possible responses on a Likert scale (never, less than a

few times a year, a few times a year, once or twice a month, once or twice a

week, every day/almost every day). Total scores for each participant were

calculated by adding together the points available for each response ranging

from numbers one to six. A score of 21 was the lowest possible score on the

Cyberbullying Experiences Survey indicating that the respondent had never

experienced cyberbullying victimization. This was calculated by adding one

point for each response of 'never'. A score of 126 was the highest possible score

on the survey indicating the respondent had experienced daily instances of

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cyberbullying victimization. This was calculated by adding together six points for each response of "every day/almost every day". The higher a score obtained by a respondent, the more experiences they reported having with cyberbullying victimization. Mean scores for each group were calculated but since there was no way to quantify the ratings for this scale, these measures were not presented. Anyone reporting a score of 22 or higher was including as an individual who indicated experiences with cyberbullying. This provided a broad range of responses for individuals who reported experiences with cyberbullying. It included individuals who may have had only one experience over there lifetime to those who have felt victimized almost every day. No cut-off range was indicated on this survey to further narrow down the responses of individuals who had experienced cyberbullying from minimal to major. There was no way to quantify the level of cyberbullying victimization reported by an individual. It was only possible to determine if they reported experiencing cyberbullying at some point during the past year or if they did not.

Previous studies have found that cyberbullying incidents among college students can range from 9% to 34% (Baldasare, Bauman, Goldman, & Robie, 2012). The current study had a prevalence rate of 85.2% for college students who reported being victims of cyberbullying out of the total 201 responses recorded. This ranged from only occasional incidents to almost daily experiences with cyberbullying victimization. This is significantly higher than the

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prevalence rates reported in previous studies. This increase could be due to the measurement tool used in this study. The Cyberbullying Experiences Survey assesses a broad array of behaviors related to cyberbullying victimization. The measure specifically addresses malice, public humiliation, unwanted contact, and deception in cyberbullying. Previous tools used to assess cyberbullying have used much more narrow and specific definitions of the target behavior being assessed. This examination of a variety of behaviors may have resulted in an increase in a larger group of individuals identifying experiences with victimization. Including more behaviors in the definition of cyberbullying may have presented a greater possibility for individuals to have the ability to identify themselves as victims of cyberbullying. Since the survey also had no minimal score to qualify as a significant level of cyberbullying, it may have included more individuals as being victims than surveys that were previously utilized.

Prior research has found that females typically experience more incidents of cyberbullying victimization than males. This is because females are more likely to engage in verbal and relational forms of aggressive behavior (Patchin & Hinduja, 2008, Heiman, Olenik-Shemesh, & Eden, 2015, Balakrishnan, 2015). Of the 166 females who participated, 86.1% reported having experiences with cyberbullying. There were a total of 23 male respondents, of which 78.3% reported being victims of cyberbullying. There were significantly more responses from females than males during the course of the study. Despite the differences

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in response rates, a larger percentage of females reported experiences with cyberbullying. The four types of cyberbullying that were assessed (malice, deception, public humiliation, unwanted contact) are more relational and not directly aggressive. Cyberbullying typically occurs within genders and the behaviors assessed are more common among females (Patchin & Hinduja, 2008, Heiman, Olenik-Shemesh, & Eden, 2015, Balakrishnan, 2015). This could be the reason more females reported experiences with this form of victimization. This aligns with earlier research that has been completed on this topic and also supports the hypothesis of the current study. A significant difference was obtained based on the gender of respondents when a chi square analysis was conducted.

Previous studies have found that individuals who are under the age of 25 have experienced the most incidents of cyberbullying victimization (Balkrishnan, 2015, Sevcikova & Smahel, 2009, Francisco, Smiao, Ferreira, & Martins, 2015). For individuals between the ages of 18 and 21, 88.1% reported experiences with cyberbullying. For those between the ages of 21 and 23, 85.9% reported incidents of victimization. This study found that 78.9% of those between 24 and 26 years of age reported cyberbullying experiences. Out of those between 27 and 29 years of age, 86.4% reported cyberbullying victimization. It also found that 100% of those between 30 and 32 years experienced cyberbullying. For those between 33 and 35, 50% reported experiences with cyberbullying. Finally,

26.7% of those aged 35 to 50 indicated that they had experienced cyberbullying. These results are similar to the findings of previous studies regarding age and cyberbullying victimization. The group with the highest percentage of reported cyberbullying experiences was those between 30 and 32 years of age. The percentage of individuals reporting cyberbullying victimization dramatically decreased from age 33 to 50. However, these results were not statistically significant when cyberbullying experiences were examined in relation to the respondent's age using a chi square analysis.

Past research has found varying results with regard to the incidents of cyberbullying victimization in relation to race. Some researchers have found that those in the minority group are more likely to be victimized by cyberbullying (Zalaquett & Chatters, 2014). Other studies have found the opposite to be true, that individuals in the majority racial group are more likely to be victims of cyberbullying (Kupczynski, Mundy, & Green, 2013, Rice, Petering, Rhoades, Winetrobe, Goldbach, Plant, Montoya, & Kordic, 2015). There were 84.6% of African American respondents that reported incidents of cyberbullying victimization. Out of those who were Asian/Pacific Islander, 100% reported experiences with cyberbullying. For Caucasian respondents, 84.7% stated that they had been victims of cyberbullying. There were 77.8% of Latino/Hispanic respondents that reported being victims of cyberbullying. Out of those who were Native American or indicated Other, 100% reported incidents of cyberbullying

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victimization. Based on these numbers, 84.7% of those in the majority racial

group and 86.9% of those in the minority racial group indicated that they had

experiences with cyberbullying victimization. This suggests that those in the

minority group had slightly more experiences with this type of victimization than

those in the majority group.   However, there was no statistically significant

differences between incidents of cyberbullying victimization for the majority and

minority racial groups when a chi square analysis was conducted.

Previous studies have indicated that individuals who report having a

higher socioeconomic status report more experiences with cyberbullying (Stys,

2004, Deniz, 2015, Akbulut, Sahin, & Eristi, 2010). There were 90.3% of

individuals in the low socioeconomic status group who reported experiences with

cyberbullying victimization. Out of those in the middle socioeconomic group,

81.6% reported incidents of cyberbullying. In the high socioeconomic group,

82.4% of individuals indicated that they had been victimized. Although the rate

for this group was higher, it was not statistically significant when a chi square

analysis was conducted.   Socioeconomic status has also been shown to have a

correlation with high self-esteem (Rosenberg & Pearlin, 1978) and with a more

external locus of control (Ward, 2013). The current study found that

socioeconomic status and self-esteem had a significant negative correlation

based on a chi square analysis. This indicates that as an individual's

socioeconomic status increases their self-esteem decreases and vice versa. No

significant correlation was found between socioeconomic status and locus of control when a chi square analysis was conducted.

Prior research has discovered varying results with regard to the correlation between cyberbullying victimization and self-esteem. The majority of research has found that individuals who report experiences with cyberbullying tend to report lower levels of self-esteem (Patchin & Hinduja, 2010, Change, Lee, Chiu, His, Huang, & Pan, 2013, Brewer & Kerslake, 2015). There are some studies, however, that have found no significant differences between level of self-esteem for those who have reported experiences with cyberbullying (Brack & Caltabiano, 2014, Garcia, Perez, Gonzalez, & Perez, 2015). Out of those who indicated low levels of self-esteem, 82.8% reported being victimized by cyberbullying. Out of those who indicated high levels of self-esteem, 100% stated that they had experienced cyberbullying. The data in this study suggests that those who have higher levels of self-esteem are more likely to have experiences with cyberbullying. It is possible that those with higher levels of self-esteem are simply more socially active on the internet and thus expose themselves to more opportunities for victimization but this information was not assessed in the current study. It is also likely that given the significant relationship between self-esteem and locus of control, those who are more likely to have high self-esteem also have a tendency to make external attributions in explaining negative experiences. The information gathered does not support the hypothesis

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proposed in the current study but it does align with some of the previous research available on the topic. There was a statistically significant difference between respondents with low self-esteem and those with high self-esteem reported experiences with cyberbullying based on the results of a chi square analysis.

Previous studies have found that individuals who report experiences with cyberbullying tend to report having a more external locus of control (Atik & Guneri, 2013, Fredstrom, Adams, & Gillman, 2011). There were 110 individuals who reported having an internal locus of control and 89 individuals who reported having an external locus of control. Out of those who reported an internal locus of control, 85.5% stated that they had experiences with cyberbullying. For those who indicated an external locus of control, 87.6% reported previous victimization through cyberbullying based on the results of a chi square analysis. However, this is not a statistically significant difference for these two groups of respondents with regard to their experiences with cyberbullying. An internal locus of control has also been shown to have a correlation with a high level of self-esteem (DeMan & Devisse, 1987). The current study found that there was a significant positive correlation between perceived locus of control and reported levels of self-esteem based on a chi square analysis. This indicates that if an individual feels in control of their life and what happens to them then they are more likely to feel better about themselves.

At the end of the cyberbullying experiences questionnaire, respondents were asked to indicate whether or not they personally knew the person who committed these acts against them. This helped to determine what percentage of respondents were directly exposed to cyberbullying attacks and what percentage represented indirect cyberbullying exposure. Out of those who reported experiences with cyberbullying, 69.5% stated that they did know the individual who was bullying them either personally or through the internet and social media. This would constitute direct cyberbullying victimization. This means that 30.5% of respondents did not know the person who was bullying them or that the person was someone they had never met either in person or online. This would constitute indirect cyberbullying victimization. This was statistically significant when a chi square analysis was conducted which reveals that the majority of individuals who experience cyberbullying victimization are familiar, either personally or through the internet, with their perpetrator. This information makes it questionable whether the anonymity of being online contributes to the rates of cyberbullying victimization. Despite having the ability to remain anonymous, it appears as if cyberbullying perpetrators choose to reveal their identity to their victims more often. Being able to use the internet and social media to engage in bullying may simply provide ease of access and more opportunities to engage in these type of behaviors.

Current educational level was assessed in the demographics questionnaire. For the total number of respondents, 58.4% had no college degree meaning they were not yet enrolled in school or are currently enrolled but have not yet graduated. 41.1% of respondents had some type of college or professional level of degree meaning they were done with school or currently enrolled in an advanced level program. Out of those who reported experiences with cyberbullying, 85.6% were in the group who did not have a college degree. Among those who did not report experiences with cyberbullying 84.6% did have some type of college degree. This would suggest that there is relatively no difference between individuals who do not yet have a college degree and those who do have a college degree when it comes to cyberbullying victimization. There was no significant statistical difference among these two groups or participants when a chi square analysis was conducted. Respondents also indicated where they were enrolled in college and the majority of individuals were attending colleges in Louisiana (49.5%) and Texas (48.9%). In Louisiana, 84.4% of respondents reported experiences with cyberbullying and 84.3% of respondents in Texas stated that they had been victimized. These response patterns present no significant differences between these two southern states when a chi square analysis was conducted. There were not enough participants from other regions to assess whether location could be a contributing factor to experiences with cyberbullying victimization.

Correlations Among the Examined Variables

Bivariate correlations were conducted for the variables cyberbullying victimization, gender, age, race, socioeconomic status, self-esteem, and locus of control. Founded on the information presented in the Correlation Table (See Table 4) several associations were noted among the dependent and independent variables. There was a significant positive correlation between cyberbullying victimization and self-esteem (R=0.294, p<0.001, R²=0.086436). There was also a significant negative correlation between self-esteem and socioeconomic status (R=-0.227, p<0.001, R²=0.051529) as well as a significant positive correlation between self-esteem and locus of control (R=0.333, p<0.001, R²=0.110889). Those with higher self-esteem tend to report greater experiences of victimization than those with lower self-esteem. Those with higher socioeconomic status report lower levels of self-esteem. Those with higher levels of self-esteem report more external levels of locus of control. The primary goal of this study was to determine which factors correlated with cyberbullying victimization. Only one independent variable revealed a significant correlation with cyberbullying victimization, which was level of self-esteem. It was significant with a Pearson correlation of 0.294 and a p value of 0.000.

Self-esteem proved an integral component as other variables within this study also correlated with it. The data reported indicates that reports of cyberbullying victimization correlate with an individual's reported level of self-

esteem. This suggests that reports of cyberbullying have a relationship with how a person feels about themselves, and their interactions with others. This positive relationship is contrary to what was initially hypothesized in this study as a result of reviewing previous literature. The data also indicated that a person's reported level of self-esteem correlates with their locus of control. Even though our locus of control is not significantly correlated with cyberbullying victimization, it is indirectly impacted due to its relationship with self-esteem. The information reported by respondents indicates that as level of self-esteem increases, locus of control becomes more externalized. This indicates that the higher the self-esteem, the greater engagement in external attribution for experiences. This is a very unique correlation and contrary to what one may hypothesize. How an individual feels about themselves is related to the control they perceive to have over their own life. The more that individuals in this study report others as the cause of their status, the higher they indicated their self-esteem to rate. This study found that a person's socioeconomic status has a relationship with their self-esteem as well because as their socioeconomic status increases their self-esteem decreases. The responses of participants suggested that individuals with a high socioeconomic status have a lower level of self-esteem and vice versa.

Table 4

Correlations Among Independent and Dependent Variables

Measure		1	2	3	4	5	6	7
1. Cyber	R	1						
	Sig.							
	N	190						
2. Sex	R	-0.142	1					
	Sig.	0.051						
	N	189	191					
3. Age	R	-0.020	-0.109	1				
	Sig.	0.783	0.136					
	N	189	190	191				
4. Race	R	-0.061	-0.040	-0.010	1			
	Sig.	0.401	0.582	0.886				
	N	190	191	191	193			
5. SES	R	-0.008	0.046	-0.121	-0.072	1		
	Sig.	0.915	0.527	0.097	0.325			
	N	187	188	188	190	190		
6. Esteem	R	0.294**	-0.082	-0.071	-0.081	-0.227**	1	
	Sig.	0.000	0.262	0.337	0.265	0.002		
	N	186	187	187	189	186	189	
7. LOC	R	0.057	-0.028	0.004	-0.064	-0.058	0.333**	1
	Sig.	0.449	0.704	0.954	0.388	0.442	0.000	
	N	181	182	183	184	181	180	184

*Note: ** Correlation is significant at the 0.01 level (2-tailed). Cyber represents responses to victimization scale on Cyberbullying Experiences Survey. SES represents participants' reported socioeconomic status, which is a combination of parents' education level and family of origin income. Esteem represents the reported self-esteem level of the respondents. LOC represents the locus of control rating indicated by each participant.*

<u>Predictors of Cyberbullying</u>

A multiple regression analysis was conducted to evaluate if gender, age, race, socioeconomic status, self-esteem, and locus of control predict cyberbullying victimization. A significant regression was found ($F_{(6,166)}=3.614$, $p<.002$), with an R^2 of 0.116 (See Table 5). Participants' predicted cyberbullying victimization is equal to 30.311 - 4.174 (gender) – 0.150 (age) + 0.484 (race) + 0.000 (socioeconomic status) + 0.633 (self-esteem) – 0.105 (locus of control). The sample R^2 coefficient was 0.116 indicating that approximately 11.6% of the variance of the cyberbullying victimization can be accounted for by gender, age, race, socioeconomic status, self-esteem, and locus of control. Only self-esteem was a significant predictor of cyberbullying victimization independently.

Table 5

Coefficients of Independent and Dependent Variables

Variable	B	SE B	β	t	Sig.
Cyber	30.311	6.706		4.520	0.000
Sex	-4.174	2.571	-0.120	-1.624	0.106
Age	-0.150	0.471	-0.024	-0.318	0.751
Race	0.484	0.864	0.041	0.560	0.576
SES	0.000	0.003	0.003	0.046	0.963
Esteem	0.633	0.157	0.318	4.027	0.000
LOC	-0.105	0.224	-0.036	-0.469	0.640

Note: Cyber represents responses to victimization scale on Cyberbullying Experiences Survey. This serves as the dependent variable. SES represents participants' reported socioeconomic status, which is a combination of parents' education level and family of origin income. Esteem represents the reported self-esteem level of the respondents. LOC represents the locus of control rating indicated by each participant. These variables along with sex, age, and race serve as the independent variables. $R^2=0.116$ (p<0.002)

CHAPTER FIVE

Discussion

<u>Summary of Findings</u>

The results of this study indicate that cyberbullying is much more prominent among the college age population than has been previously indicated. The prevalence rates obtained using this survey far exceed those obtained in prior studies. It was discovered that females are significantly more likely to report experiences with cyberbullying than males. It is hypothesized that this is due to the verbal and relational nature of cyberbullying which is historically more common among the female population. The study also revealed that those with a high level of self-esteem report having significantly more experiences with cyberbullying victimization. This finding contradicts most of the historical research on the topic of self-esteem and cyberbullying victimization. The cause of this relationship is unknown. It was also found that those who report experiences with cyberbullying are more likely to know their perpetrator. This suggests that anonymity may not be a strong motivating factor for cyberbullying. Unrelated to cyberbullying, it was also discovered that there is a significant relationship between self-esteem and socioeconomic status as well as self-esteem and locus of control. It was found that if an individual indicates they have a high socioeconomic status they report experiencing a lower level of self-

esteem. It was also revealed that when an individual indicates that they experience a more internal locus of control their reported level of self-esteem is higher.

No significant differences were found when the respondent's age was examined as a contributing factor to cyberbullying victimization. This indicates that despite an individual's age, they are equally likely to experience cyberbullying as their older or younger peers. Race was also not found to demonstrate any significant differences. This shows that there is no difference between cyberbullying experiences reported by those in the majority and the minority racial groups. Significant differences were not found between individuals of varying levels of socioeconomic status. Respondents were equally likely to report experiences with cyberbullying despite their level of socioeconomic status. Locus of control was not found to demonstrate any significant differences with regard to cyberbullying victimization. Individuals with both a perceived internal and external locus of control reported similar levels of cyberbullying experience. With regard to level of education and location or college attendance, no significant differences were found. Respondents in undergraduate and graduate level programs reported analogous levels of cyberbullying victimization. Also, those attending colleges in Louisiana and college in Texas indicated equal rates of cyberbullying. The only significant differences among cyberbullying victimization were found when reported

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cyberbullying experiences were examined by the respondent's sex and level of self-esteem.

<u>Significant Findings</u>

The purpose of the current study was to determine to what degree college students' demographic background, including age, gender, and race, along with the socioeconomic status of their family of origin, locus of control, and self-esteem predict the variance among their reported experiences as victims of cyberbullying. The answer to that question is 11.6%, which is a relatively small percentage, but statistically significant nonetheless. As a group, these factors have some limited predictive ability. Refinement of this model in the future could be done to improve its predictive ability with regard to cyberbullying experiences. The most significant finding from the study is that as experiences with cyberbullying victimization increased, so did the respondents self-esteem. Self-esteem was found to predict or be associated with the variance in individuals' self-report of experiences with cyberbullying. Those with higher self-esteem were found to report a greater number of experiences with cyberbullying than those with lower self-esteem. This differs considerably from the previous findings on this topic. The majority of previous research has found that individuals who are victims of cyberbullying tend to report lower levels of self-esteem (Pachin & Hinduja, 2010, Change, Lee, Chiu, His, Huang, & Pan, 2013, Brewer & Kerslake, 2015). There are some studies, however, that have found no significant

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difference among level of self-esteem for victims of cyberbullying (Brack &

Caltabiano, 2014, Garcia, Perez, Gonzalez, & Perez, 2015). There is limited

information available regarding increased reports of victimization with higher

levels of self-esteem. This is a relatively new concept that should be explored

further in future studies. It is unclear at this time why these findings differed so

significantly from the results obtained in previous research related to

cyberbullying victimization and levels of self-esteem. This difference in outcomes

could be due to several factors including: variability in measurement tools,

alterations in population, or variations in geographic location.

Implications of Findings

The current study indicated that an individual's level of self-esteem is

directly correlated to their experiences with self-reports of cyberbullying

victimization. In fact, this was the only significant correlation found between the

independent and dependent variables in the study. Contrary to previous

research (Pachin & Hinduja, 2010), this study found that as cyberbullying

victimization experiences increased, an individual's level of self-esteem

increased as well. Many studies in the past have found that as cyberbullying

victimization experiences increased, an individual's level of self-esteem actually

decreased (Change, Lee, Chiu, His, Huang, & Pan, 2013, Brewer & Kerslake,

2015). This is a significant difference from the findings of the current study. It is

unclear from the information gathered whether individuals with high self-esteem

are more susceptible to being victims of cyberbullying or if being exposed to cyberbullying victimization causes an increase in self-esteem. It is also possible that individuals with higher levels of self-esteem are simply more active socially online which results in a greater opportunities to be exposed to cyberbullying victimization. Whatever the reason may be, it was determined that the two variables correlate strongly together in a positive direction. This could have significant implications for the field of psychology and prevention or intervention methods for cyberbullying victimization.

Previous research has indicated that individuals who experience lower levels of self-esteem are more likely to report incidents of cyberbullying victimization (Patchin & Hinduja, 2010, Change, Lee, Chiu, His, Huang, & Pan, 2013, Brewer & Kerslake, 2015). The results of the current study suggest that the opposite is true. Individuals who reported higher levels of self-esteem were more likely to state that they had experienced cyberbullying. There are several possible hypothesis to explain this correlation. First, it is possible that since self-report assessments were utilized, respondents may have rated themselves in a more favorable manner. Individuals may be more likely to rate their self-esteem as higher for fear of being judged. In our current society it is seen as a good thing to have high self-esteem so respondent bias may have contributed to these scores. Second, cyberbullying victimization was also assessed using self-report. This could result in inaccurate reporting of cyberbullying victimization. It is

possible that individuals may perceive themselves as being bullied when they are not based on the current definition of the term. Self-report measures reflect the perspective of the respondent and not necessarily accurate quantitative data. Third, there may be a changing shift in our current society where individuals have been trained to experience higher levels of self-esteem. Recent movements have taken place in primary schools to teach and encourage positive self-esteem. The result may be a generation of individuals who truly experience higher levels of self-esteem. It may have also created a generation of individuals who value the image of having a high self-esteem and see something intrinsically wrong with individuals who do not feel that way. Finally, self-esteem is a very vague concept that may not be fully understood by respondents. It can be interpreted differently by various individuals and can be susceptible to varying perspectives. It is possible that this limitation could have skewed the results of the self-report survey.

Based on this information, psychologists and counselors in the past may have been targeting the wrong individuals for intervention or identifying the wrong skill area to increase resilience. Previous interventions have worked to identify individuals who may experience low levels of self-esteem, then implement methods for increasing their self-esteem in order to reduce their risk of victimization. Historically research has suggested that implementing programs to help increase self-esteem may serve as a protective factor against being a victim

of cyberbullying (Patchin & Hinduja, 2010).   If we are only targeting individuals who are perceived to have low levels of self-esteem for participation in interventions, then a large group of individuals who are being victimized or are subject to potential victimization may be overlooked. Based on the current study, increasing an individual's level of self-esteem may actually increase the self-reporting behavior among some populations. This common approach of the field of psychology could be wrong for meeting the needs of victims of cyberbullying. Decreasing an individual's self-esteem is not the solution and seems counter intuitive. Identifying other skill areas to focus on and improve may be important to increasing resiliency of those victimized by cyberbullying. Findings suggest that the efficacy of a standard template for intervention cannot be assumed and there may be a need for the development of customized interventions based on self-esteem. Self-esteem for this population was found to be significantly correlated with an external locus of control. Those who tend to make external attributions to their life experiences, especially negative ones, may also tend to more frequently self-report that someone is doing something to them. If an individual thinks highly of themselves they may be more apt to self-report experiences than those who do not within this sample with these unique demographics. Clinicians should consider expanding their scope of potential victims to those with high levels of self-esteem and incorporate other skill areas

in training to help promote resilience and positive coping strategies. It may be beneficial to rethink how we identify and help victims of cyberbullying.

Limitations

A major limitation of this study was the use of self-report measures. There is a significant amount of bias with these types of measures. Respondents often want to portray themselves in a favorable manner and may actually have difficulty with accurate introspection. They may interpret themselves or their experiences differently than others would portray them. There is also the possibility that participants may not fully understand the survey or questions that it contains. An informed consent was provided to make respondents aware of the purpose and risks of the study but accurate understanding of the actual survey itself cannot be ensured with the use of self-report. Self-reports also make it difficult to determine if individuals completed the survey in its entirety until the data has been collected. Out of the 201 responses provided there were 10 that were found to be incomplete during the data analysis process. Requiring face-to-face interaction and discussion with participants might have potentially reduced this number of incomplete surveys. Self-report measures present several limitations and concerns but they are often the best measure for addressing internal thoughts or attitudes of research participants. Since many of the concepts addressed in this study were not observable (i.e. self-esteem, locus of control) self-report was the best method of data collection available.

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Another limitation was the sample size and variability in the study. The sample size obtained was large enough to gather valuable data, but increasing the number of participants would have added more variability to the demographic information of the respondents. Survey participants were predominantly white, middle class, Southern females. Increasing the number of respondents would have hopefully added a more diverse group of participants. With an increased racial diversity, socioeconomic status variety, and more range in geographic location, a greater assortment of responses could be obtained. The use of a locally available sample of convenience limited the distribution range of the online survey. Creating an extra incentive for participation (i.e. raffle) may have also helped to increase the number of responses obtained. The most responses were obtained in locations where extra course credit was offered for completion of the survey by college professors. Having incentives for participation helped to encourage individuals to complete the survey. By adding more incentives it may have been possible to obtain responses from participants in other areas of the country. Adding more variety to the sample population would be valuable and has the potential to significantly impact the results obtained in the study.

A final limitation was the validity of the construct of self-esteem and that of cyberbullying victimization. Self-esteem is a vague term that has been defined many different ways and taught in a multitude of manners. It is possible that this variable could have been misinterpreted or that it may be too abstract to truly

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evaluate or measure. This lack of clarity and definition could have lead to

skewed and possibly inaccurate data. Cyberbullying too is a difficult term to

define. It often depends on the perspective of those involved in the behavior.

What may be seen as cyberbullying by one individual may be seen as innocent

behavior by another. Although individuals may have reported that they were

victimized, the accuracy and legitimacy of those statements is unclear. Both self-

esteem and cyberbullying victimization are ambiguous terms and concepts that

present some lack of clarity. Despite operationally defining these terms,

participant perspective and bias may have influenced the survey scores in these

two areas. This adds some murkiness to the interpretation of these findings.

These results must be analyzed and interpreted with caution.

<u>Future Directions</u>

Future studies on cyberbullying should include other independent

variables in the model. The current model had some predictive validity but self-

esteem was the only significantly correlated variable. It is possible that other

variables may serve to increase the predictive validity of the model. Researchers

should examine variables that have been shown to correlate with traditional

bullying or other forms of victimization. Other demographic variables could be

considered such as family structure which has been shown to correlate with

traditional bullying victimization (Nordhagen, Nielsen, Stigum, & Kohler, 2005).

Different personality traits may be explored like extraversion, agreeableness,

conscientiousness, neuroticism, and openness which have also been shown to correlate with traditional bullying (Tani, Greenman, Schneider, & Fregoso, 2003). Also, college majors may be an area of interest to isolate. A significant discrepancy was not noted between cyberbullying among undergraduate and graduate students but it is possible that there may be more divergence when the type of major is analyzed. Working to fine tune the predictive model could be invaluable to the field and help to decrease the incidents of cyberbullying victimization. By identifying more variables related to incidents of cyberbullying victimization, it would be possible to establish early prevention methods for those who fit the model and implement steps to interventions based off of the deficits identified in the model itself.

Another area of future research would be evaluating this model with elementary, middle, and high school students. It is possible that different results may be obtained and the variables may be more significantly correlated for different age groups. Specific factors may be more or less important when there is significant variability among the respondents' ages. It would also be beneficial to evaluate the new variables suggested for future studies with a variety of age groups to note any specific differences. As we become adults our personalities and behavior traits can change dramatically. We can also learn to compensate for our deficit areas or manipulate our answers so that our deficits are not visible to others. Giving these surveys or similar ones to individuals who are younger in

age may yield dramatically different results. Comparing the results obtained among the different age groups may help us to notice changes over time as well. It would be beneficial to note if there are significant differences among these various age groups. This could refine our methods for identifying victims of cyberbullying and providing interventions to assist them even more. It might be statistically significant to assess these variables over time in a more longitudinal method as well. These findings suggested that a variance in reporting the experience might be associated with stage of psychological/emotional/social development.

An additional area for future evaluation is the connection between cyberbullying victimization and physical illness, mental illness, and health-risk behaviors. Recent research has focused on the impact of adverse childhood experiences on negative behaviors later in life (Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998). It would be beneficial to determine the role that cyberbullying victimization plays in that area. It may be possible that individuals who are exposed to adverse experiences as a child are more likely to be victims of cyberbullying. It might also be that individuals who experience cyberbullying victimization at a young age (i.e. elementary school) experience difficulties as an adult. Cyberbullying victimization could possibly serve as an adverse experience during childhood. Relating cyberbullying to adverse childhood experiences could create a plethora of new avenues to pursue

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with regard to research. These are two very important concepts that are currently intense areas of research and investigation in the field of psychology. Being able to form connections between adverse childhood experiences, cyberbullying victimization, and characteristics or behaviors in adulthood could have the potential to significantly impact the practice of psychology.

The last area of future evaluation would be to gather more information on the impact of cyberbullying. It would be important to find out how experiencing cyberbullying affects respondents. Previous studies have suggested that its impact is similar to that of traditional bullying but little data is out there regarding its long-term influence. It would be beneficial to determine if psychopathology correlates with being cyberbullied. We know that cyberbullying is occurring at astounding rates, but we are unsure of how this has influenced our society or influenced people individually. This information could help us to determine what interventions may be needed. By identifying the effects of cyberbullying, we can help to detect which areas may be in need of intervention. We may also be able to determine in what direction to proceed in developing those interventions. Until we know how cyberbullying is impacting its victims, we cannot truly understand when or how to intervene. Intervention is key but clinicians and counselors must know where the deficits occur and where to begin in that process.

<u>Conclusion</u>

Cyberbullying is a disturbing practice that is prevalent in our society due to our engrossment in the internet and social media. It has extensive, long-term consequences that may be tied to suicide, significant mental illness, and overall poor well-being. Methods for prevention and intervention are important for decreasing the spread of this alarming behavior. The current study adds to the research literature regarding prevalence rates of cyberbullying victimization among college age adults. The prevalence rates obtained in this study far exceed those expected based on a review of previous literature. This new area of study in the field of psychology has very limited information and data behind it. Contributing to the research base on this topic, at this time, is invaluable. This research study also provides insight into the experiences of individuals of different ages, genders, races, and socioeconomic statuses with regard to cyberbullying. This information may aid clinicians in identifying individuals who may be more likely to be targeted as victims for cyberbullying. Early identification of those who engage in cyberbullying and those who are victimized is critical for providing prevention services to reduce the incidents of cyberbullying victimization.

The present data also allows us to better understand the significant connection between self-esteem and cyberbullying victimization. It is clear from the information gathered that there are instances where having a higher level of

self-esteem is correlated with more incidents of cyberbullying victimization. Further research is needed to determine the cause and effect relationship between cyberbullying victimization and self-esteem. It may be possible that having a high self-esteem makes an individual more susceptible to report the experience and/or have the experience and/or interpret the experience as cyberbullying. It may also be possible that being a victim of cyberbullying causes an increase in self-esteem. From the current information obtained, it is unclear which variable presents the initial cause for the relationship between the two variables. Either way, this correlation can lead to new avenues with regard to intervention for individuals who are being victimized by cyberbullying. Intervening on an individual's level of self-esteem may not be the best approach to encouraging resilience from cyberbullying victimization. There may be other characteristics or skill sets that help to decrease a person's likelihood of experiencing cyberbullying.

This study reveals the severity of cyberbullying victimization among the college population. It emphasizes the need for prevention and intervention methods. Advocacy is a serious step needed for the prevention of cyberbullying. Society needs to be aware of the prevalence and the severity of its impact. There is little legal support available for those who have been victimized by cyberbullying. Clinicians must speak up for their clients and advocate for laws regarding the perpetration of cyberbullying. Information regarding this topic

needs to be shared and addressed with the public and the profession of

psychology. Clinicians and psychologists are currently the front line of defense

for those who feel that they are being victimized for cyberbullying. Counseling

should be examined as a critical method of intervention. Intervention methods

must be tailored to meet the needs of those who perceive themselves as being

victimized. This may involve training in various skill areas, psychotherapy, or

psychoeducation related to the topic of cyberbullying. The actions taken should

be directly related to the client and their identified areas of strength and

weakness. Advocacy and counseling are important pieces of prevention and

intervention that must be considered to address the epidemic of cyberbullying.

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VITA

After completing her work at Logansport High School, Logansport, Louisiana, in 2002, Sonya Poole entered Centenary College of Louisiana at Shreveport, Louisiana. During the summers of 2002 and 2003 she attended Panola College in Carthage, Texas. She received the degree of Bachelor of Arts in Psychology from Centenary College of Louisiana in May 2006. During the following two years, she attended Louisiana State University in Shreveport, Louisiana where she worked as a graduate assistant. In May 2008, she received the degree of Master of Science in Counseling Psychology. After graduation, she completed the required supervision and obtained her licensure as a Licensed Professional Counselor. During the following three years, she worked as a mental health professional within several different agencies. In January 2011, she entered the Graduate School of Stephen F. Austin State University, and received the degree of Doctor of Philosophy in School Psychology in August of 2017.

Permanent Address: 702 Bethel Road

                        Logansport, LA 71049

APA Style Manual

This thesis was typed by Sonya P. Poole.