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# The Role of Cyberbullying Victimization in Sexual Minority Adolescents' Reported Levels of Depression and Anxiety

Jessica Lauryn Byrd

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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

THE ROLE OF CYBERBULLYING VICTIMIZATION IN SEXUAL  
MINORITY ADOLESCENTS' REPORTED LEVELS  
OF DEPRESSION AND ANXIETY

A Dissertation Submitted in Partial Fulfillment  
of the Requirements of the Degree of  
Doctor of Philosophy

Jessica Lauryn Byrd

College of Education and Behavioral Sciences  
School of Applied Psychology and Counselor Education  
School Psychology

May 2015

This Dissertation by: Jessica Lauryn Byrd

Entitled: *The Role of Cyberbullying Victimization in Sexual Minority Adolescents' Reported Levels of Depression and Anxiety*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in  
College of Education and Behavioral Sciences in Department of School Psychology

Accepted by the Doctoral Committee

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Robyn S. Hess, Ph.D., Research Advisor

---

Achilles N. Bardos, Ph.D., Committee Member

---

Jeffrey A. Rings, Ph.D., Committee Member

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Tracy G. Mueller, Ph.D., Faculty Representative

Date of Dissertation Defense \_\_\_\_\_.

Accepted by the Graduate School

---

Linda L. Black, Ed.D., LPC  
Dean of the Graduate School and International Admissions

## ABSTRACT

Byrd, Jessica Lauryn. *The Role of Cyberbullying Victimization in Sexual Minority Adolescents' Reported Levels of Depression and Anxiety*. Published Doctor of Philosophy dissertation, University of Northern Colorado, 2015.

This dissertation examined the relationship between sexual and gender minority adolescents' and heterosexual adolescents' frequency of cyberbullying victimization and their reported levels of depression and anxiety. A total of 93 sexual and gender minority adolescents and 113 heterosexual adolescents participated. Results indicated sexual and gender minority participants experienced significantly more victimization than heterosexual participants. Sexual and gender minority participants reported significantly higher levels of depression and anxiety. Participants with the highest levels of victimization reported experiencing significantly higher levels of depression than participants with medium amounts of victimization. When controlling for frequency of victimization, sexual and gender minority and heterosexual participants did not have significantly different levels of depression and anxiety. There was no significant difference on depression and anxiety between sexual and gender minority participants who disclosed their sexual orientation to family and friends and those who had not. Implications for school practice and future research are provided. These implications include discussions of school-based mental health interventions at the universal level and cyberbullying prevention programs for all youth, regardless of sexual orientation.

Keywords: cyberbullying, sexual orientation, SGM, adolescents, depression, anxiety

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## **CHAPTER I**

### **INTRODUCTION**

Sexual orientation, as defined by the American Psychological Association (APA, 2008) refers to:

The enduring pattern of emotional, romantic, and/or sexual attractions to men, women, or both sexes. Sexual orientation also refers to a person's sense of identity based on those attractions, related behaviors, and membership in a community of others who share those attractions. (p. 1)

The most recent research has shown that sexual orientation can be viewed as a continuum, ranging from purely heterosexual to purely homosexual, with variations in between (APA, 2008). While there are numerous sexual orientation identity statuses (e.g., pansexual, asexual), sexual orientation is most commonly grouped into three primary categories: heterosexual (those who are emotionally, romantically, and/or sexually attracted to members of the opposite sex), homosexual (those who are emotionally, romantically, and/or sexually attracted to members of the same sex), and bisexual (those who are emotionally, romantically, and/or sexually attracted to members of both sexes). Individuals who are transgendered (i.e., someone whose gender identity or expression does not match their birth assigned gender) are also included in these broad categories. A term commonly used to refer to people with variations in sexual orientation or gender identity is sexual and gender minorities (SGM). However, in keeping with the terms used by authors in their work, the terms lesbian, gay, bisexual, and transgender (LGBT) or lesbian, gay, and bisexual (LGB) will be used interchangeably.

The development of one's sexual orientation identity has been examined primarily through two different theoretical frameworks: stage models (i.e., Troiden, 1988) and lifespan developmental models (i.e., D'Augelli, 1994). For the purpose of this study, D'Augelli's (1994) life-span developmental model was used as the framework for understanding how one develops her or his sexual orientation identity. D'Augelli (1994) stated that individuals continue to change and develop throughout the course of their lives and that this development could be influenced by both environmental and biological factors and would vary depending upon their relationships with peers, community setting, culture, historical setting, and their developmental level in physical, emotional, and cognitive domains. Individuals take an active role in their sexual orientation development and go through a series of processes as they develop their identities. One of these processes is disclosing one's sexual orientation to family, peers, and colleagues.

One of the most stressful events in an LGBT adolescent's life is sharing her or his sexual orientation identity, also known as coming-out, with their family and friends (Maguen, Floyd, Bakeman, & Armistead, 2002). Fear of how these individuals will react often keeps LGBT adolescents from disclosing their sexual orientation status with anyone. These adolescents who do decide to disclose their sexual orientation most commonly come-out to a friend first and then their parents, usually around the age of 16 or 17 (Maguen et al., 2002). Although the literature on this topic typically focuses on the negative ramifications of coming-out, some authors have found that LGBT adolescents who experienced acceptance and positive reactions from their parents had significantly higher levels of self-esteem, general health, and social support (Ryan, Russell, Huebner, Diaz, & Sanchez, 2010). Because much of the research related to sexual orientation in

youth is relatively new, there are inconsistencies in the literature, including the number of individuals in the United States who report their identity as a member of the sexual or gender minority (SGM) population.

It is difficult to estimate the number of individuals in the United States who identify as lesbian, gay, bisexual, or transgender due to differences in sampling methods and definitions of the variables being measured. However, a recent study conducted by Gates (2011) and a recent Gallup poll (Gates & Newport, 2012) revealed that about 3.5% of the adults in the United States identify as lesbian, gay, or bisexual. Additionally, 0.3% of the U.S. adults identify as being transgender (Gates, 2011). Based on these findings, Gates (2011) concluded that about nine million people in the United States identify as SGM. These percentages were similar to findings from studies conducted in the 1940s and 1950s by the Kinsey Institute, which concluded that 4.0% of the males sampled were “exclusively homosexual” throughout their lifetime after entering adolescence (Kinsey, Pomeroy, & Martin, 1948).

Adolescents and young adults are more likely to identify as being gay, lesbian, bisexual, or transgender than seniors who are over the age of 65, a finding which is consistent with other polls on the same subject (Chandra, Mosher, Copen, & Sionean, 2011; Gates, 2010; Gates & Newport, 2012). Contradictory findings have emerged when differences between males and females and their sexual identity have been examined. Remafedi, Resnick, Blum, and Harris (1992) found that male adolescents were more likely to report being gay than females, but the more recent Gallup poll indicated that more women than men identified as gay (Gates & Newport, 2012). It was difficult to determine whether this was a real difference in more females being willing to disclose

their sexual orientation or a simple variation in study methodology. In all of these statistics, it is important to keep in mind that these numbers only include individuals who have in some way openly disclosed their sexual identity, which may account for some of the differences among older adults and variations in reporting among younger males and females.

When examining age differences and sexual identity, Remafedi et al. (1992) found that as adolescents got older they were less likely to report being unsure of their sexual orientation, which is consistent with sexual orientation identity development theories (e.g., Cass, 1979; Troiden, 1988) and findings from other studies (e.g., Paul et al., 2002). However, the most recent large scale studies (i.e., Gates, 2011; Gates & Newport, 2012), indicated that increasingly more young adults and adolescents are identifying openly as SGM rather than waiting until they reach adulthood to reveal their sexual orientation status. When examining differences between people of different races, more non-white than white individuals identified as SGM; however, this was an area that has been rarely studied within the field of SGM research, so limited data are available on ethnicity and sexual orientation identities (Gates & Newport, 2012; Harper, Jernewall, & Zea, 2004).

As noted there is an important distinction between publicly identifying oneself as being SGM versus recognizing oneself as SGM, but never coming out to anyone with this information. Individuals may not choose to disclose their identities for a variety of reasons including religion, employment, stigma, or fear of alienating family and friends. Therefore it is possible that these percentages are an underestimate of the actual percentage of SGM Americans, due to the sampling methods used (Gates, 2011). This

distinction should also serve as a reminder to mental health professionals, including school psychologists that although some adolescents and youth may identify as SGM, there may be other youth who still face the same risks associated with being SGM, but who are less easy to identify and serve effectively.

It has been well established within the current literature that gay, lesbian, bisexual, and transgender youth and adolescents have an increased risk for a variety of negative outcomes including psychological and emotional problems (e.g., negative self-image, internalizing disorders, and suicidality), academic problems (e.g., increased absenteeism and decreased achievement), and social problems (e.g., rejection by family and peers, homelessness, violence, prejudice, and discrimination; (Albelda, Badgett, Schneebaum, & Gates, 2009; Almeida, Johnson, Corliss, Molnar, & Azrael, 2009; Austin, Roberts, Corliss, & Molnar, 2008; Austin et al., 2009; D'Augelli, Hershberger, & Pilkington, 1998; Garofalo, Wolf, Wissow, Woods, & Goodman, 1999; Gates, 2010; Igartua, Gill, & Montoro, 2003; Marshal et al., 2008; Meyer, 2003; Robinson & Espelage, 2011).

In addition to the challenges and potential negative outcomes facing SGM youth, they were also often found to be the victims of harassment, bullying, and more recently cyberbullying with the advent of such technology. In fact, the 2011 School Climate Survey conducted by the Gay, Lesbian, and Straight Education Network (GLSEN) reported that 81.9% of the 8,584 LGBT students surveyed reported being verbally harassed, 38.3% reported being physically harassed, and 18.3% reported being the victims of physical assault at school within the past year because of their actual or perceived sexual orientation (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012).

Similarly, Schneider, O'Donnell, Stueve, and Coulter (2012) found that LGBT youth were more likely than their heterosexual peers to report being cyberbullied, with 33.1% of LGBT students experiencing cyberbullying compared to 14.5% of heterosexual youth.

Bullying is a complex problem that involves multiple individuals, groups, and systems. The problem of bullying and its negative impact on bullies, victims, and bystanders is best understood by using Bronfenbrenner's (1977) bioecological model of human development as a framework. Within this theoretical framework, the individual's environment is viewed as a set of systems that interact reciprocally with one another and that impact the individual both directly and indirectly. This theory is used as a foundation for understanding both traditional bullying and cyberbullying because it highlights the importance of viewing bullying in a broader context and as a behavior that can be changed by working with individuals at various levels, such as individually, in group settings, and through systems-level intervention and prevention programs. With this theoretical understanding of bullying in mind, a brief introduction of traditional bullying and cyberbullying and the negative effects either type of victimization has on adolescents is presented.

The most widely accepted definition of bullying was developed by Olweus (2003), who stated that bullying is characterized by three main elements: bullying is a series of repeated and deliberate actions which cause another person physical or emotional pain; an imbalance of power must be present between the bully and the victim and can be either physical or psychological in nature; and bullying involves "proactive aggression, that is, aggressive behavior that usually occurs without apparent provocation...on the part of the victim" (p. 12). The negative impact traditional bullying has on students who are

victims of bullying is well documented. One meta-analysis conducted on peer victimization found that being a victim of bullying was positively associated with depression, loneliness, increased social anxiety, decreased self-esteem, and lower social competence (Hawker & Boulton, 2000).

Bullying can take many forms and in some instances can be fairly subtle and perhaps unintentional. For example, the 2011 National Climate Survey conducted by the Gay, Lesbian and Straight Education Network (GLSEN) reported that 84.9% of the 8,584 students sampled between the ages of 13 and 20 reported hearing the term “gay” used in a negative way within their school, while 71.3% reported hearing other homophobic remarks often when they were at school (Kosciw et al., 2012). The pervasiveness of these types of remarks can create an environment that feels unsafe.

Lesbian, gay, bisexual, and transgender students who are bullied are more likely to report higher levels of substance abuse, suicidality, and high-risk sexual behaviors than their heterosexual counterparts (Bontempo & D’Augelli, 2002). Regardless of bullying status, adolescent sexual minority youth are more likely to report experiencing higher levels of depression, suicidality, and hopelessness than their heterosexual peers (Safren & Heimberg, 1999). Thus, the combination of identifying as SGM and experiencing bullying may lead to even higher levels of distress for these youth. While a great deal is known about traditional bullying and its impact on both heterosexual and SGM adolescents, less is known about the newest form of bullying, cyberbullying.

Due to the recent development of the cyberbullying phenomenon, a definition that is widely accepted has yet to have been agreed upon within the literature. Belsey (2008) defined cyberbullying as “the use of information and communication technologies to

support deliberate, repeated, and hostile behaviour by an individual or group, that is intended to harm others” (para. 1). Another definition of cyberbullying used in the literature described cyberbullying as, “An aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself” (Smith et al., 2008, p. 376).

Early work in this area suggests that cyberbullying is a fairly common experience for youth. For example, Suzuki, Asaga, Sourander, Hoven, and Mandell (2012) reviewed multiple cross-sectional studies from around the world regarding the definition, prevalence, and other basic information about cyberbullying and found that on average, 24.0% of the people sampled in the various studies reported being the victims of cyberbullying, while 16% reported being cyberbullies. Similarly, in a review of 75 studies of cyberbullying victimization, Tokunaga (2010) found that the prevalence rates for cyberbullying victimization among adolescents ranged from 20 to 40%. However, exact estimates of the prevalence of cyberbullying victimization are difficult to determine due to differences in methodologies, definitions, and populations studied.

Cyberbullying is unique in that it does not necessarily take place on school grounds or as a face-to-face interaction. Yet, the impact of cyberbullying, although derived from a much smaller literature base than that of traditional bullying, appears to be similar for students who are victims (e.g., Bauman, Toomey, & Walker, 2013; Hinduja & Patchin, 2008; Hinduja & Patchin, 2010; Ortega et al., 2012; Patchin & Hinduja, 2006; Price & Dalgleish, 2010). Thus, students who are victims of cyberbullying may be at an increased risk for social and emotional problems, due to the pervasive nature of cyberbullying and the anonymity and disinhibition of its perpetrators. For example,

several studies have found that cyberbullying victims reported feeling extreme sadness, annoyed, angry, frustrated, embarrassed, and fearful (Ortega et al., 2012; Price & Dalgleish, 2010). Patchin and Hinduja (2006) found that victims of cyberbullying experience feelings of sadness, anger, embarrassment, and frustration. Students who were victims of cyberbullying reported having decreased self-esteem, self-confidence, and poorer relationships with friends (Price & Dalgleish, 2010). Cyberbullying victimization has also been significantly related to an increased risk for suicidality among adolescents (Bauman et al., 2013; Hinduja & Patchin, 2010).

Even though cyberbullying often occurs outside of school, it still appears to have an impact on student attendance and performance at school. Adolescents who are victims of cyberbullying were significantly more likely to report having school problems (e.g., skipping school, cheating on a test, or being sent home from school) within the past six months (Hinduja & Patchin, 2008). Victims of cyberbullying could experience delinquency or decreased school attendance and performance if they were fearful of attending school due to their victimization (Patchin & Hinduja, 2006; Price & Dalgleish, 2010).

As with other types of bullying, LGBT youth are more likely to be the victims of cyberbullying than their heterosexual peers (e.g., Kosciw et al., 2012; Robinson & Espelage, 2011; Schneider et al., 2012). For example, Schneider et al. (2012) sampled 20,406 students in grades nine through twelve from Massachusetts and found that LGBT youth were more likely than their heterosexual peers to report being cyberbullied, with 33.1% of LGBT students experiencing cyberbullying compared to 14.5% of heterosexual

youth. Clearly these adolescents are at-risk for being cyberbullied, but less is known about the emotional impact this victimization has on them.

To date, very few studies have been conducted examining the outcomes for LGBT students who experience cyberbullying (Blumenfeld & Cooper, 2010; Cooper & Blumenfeld, 2012). The purpose of these studies has primarily been to determine prevalence rates and to gather anecdotal or qualitative information about the impact of cybervictimization (Blumenfeld & Cooper, 2010; Cooper & Blumenfeld, 2012). Furthermore, although the literature base on cyberbullying has grown, many of the studies reporting on the emotional impact of cyberbullying have been anecdotal in nature and have not relied on validated measures of constructs such as depression and anxiety. For example, Blumenfeld and Cooper (2010) asked LGBT students to tell about their experiences with cyberbullying and Cooper and Blumenfeld (2012) asked LGBT adolescents to select from a list of emotional reactions, how they felt after they were cyberbullied. Results of this study showed that LGBT adolescents experienced feelings of depression (56.0%), embarrassment (51.0%), and anxiety about returning to school (36.0%), with 31.0% reporting that they experienced thoughts of suicide after being victimized electronically (Cooper & Blumenfeld, 2012).

### **Statement of the Problem**

Adolescents who are members of the SGM population are at an increased risk for negative outcomes such as homelessness, absenteeism, low school achievement, and suicide. In addition, LGBT adolescents are also at an increased risk of being victimized both physically and verbally, in and out of school (e.g., Kosciw et al., 2012). Research on heterosexual students who are involved in bullying or cyberbullying has shown that the

impact of bullying and cyberbullying appears to be more similar than different (e.g., Bauman et al., 2013; Hinduja & Patchin, 2008; Hinduja & Patchin, 2010; Ortega et al., 2012; Patchin & Hinduja, 2006; Price & Dalgleish, 2010). Students who are the victims of either type of bullying report experiencing greater amounts of depression, anxiety, suicidal ideation, behavioral problems, lower self-esteem, and decreased academic achievement (e.g., Patchin & Hinduja, 2010; Price & Dalgleish, 2010).

While the outcomes for students involved in bullying are poor, the outcomes for LGBT students involved in traditional bullying are worse (e.g., Bontempo & D'Augelli, 2002; Safren & Heimberg, 1999). Researchers (e.g., Campbell, 2005; Patchin & Hinduja, 2006; Suler, 2004) hypothesize that because cyberbullying is more pervasive, anonymous, and because cyberbullies are more disinhibited, the severity of the outcomes students experience when they are involved in cyberbullying may be increased. A similar pattern likely exists for SGM adolescents in that these youth are experiencing more cyberbullying, and the cyberbullying leads to more negative outcomes. Understanding the negative outcomes associated with cyberbullying for SGM students is vital in order to prevent students from experiencing depression, anxiety, low self-esteem, academic difficulties, and suicidal ideations as a result of being bullied.

### **Statement of Purpose**

The purpose of this study was to gain a better understanding of the impact that cyberbullying victimization has on SGM adolescents. More specifically, this study examined the relationship between cyberbullying and students' self-reported levels of depression and anxiety through the use of validated instruments. Furthermore, this study included a non-SGM comparison group to determine whether the occurrence of

cyberbullying victimization was more pervasive for sexual minority youth than it was for heterosexual adolescents.

There is a lack of research in both the areas of SGM students' experiences with cyberbullying and the emotional impact cyberbullying has on these students. This deficiency highlights the need for further research. The findings from these studies also underscore the importance of prevention and intervention efforts that support students who are being bullied as a result of their actual or perceived sexual orientation. The results of this study could assist researchers and school personnel to develop programs that support the SGM youth within their buildings by focusing on issues that these young adults face in their daily lives and that may have a negative impact on both their mental health and academic functioning.

### **Research Questions**

- Q1 Is there a significant difference between sexual and gender minority students and heterosexual students in the frequency of their cyberbullying victimization?
- Q2 Do sexual and gender minority students who report experiencing medium or high levels of cyberbullying in the past two or three months (as measured by a score of 18 or more on the Cybervictimization Survey) report experiencing higher levels of depression and anxiety than heterosexual students who report experiencing medium or high levels of cyberbullying in the past two or three months?
- Q3 Do sexual and gender minority students who report being open about their sexual orientation with their family and friends (as indicated by a response of 'yes' to both questions about disclosure) experience lower levels of depression and anxiety than sexual and gender minority students who are not open about their sexual orientation (as indicated by a response of 'no' to one or both of the disclosure questions)?

### **Delimitations**

It is important to acknowledge the delimitations of the current study. First, this study was limited to SGM and heterosexual students who were currently attending high school in a western state, who are between the ages of 15 and 18. Lastly, only students who were victims of cyberbullying within the past two to three months were eligible to participate.

### **Definition of Terms**

*Bisexual*: “An individual who is physically, romantically and/or emotionally attracted to men and women” (Gay and Lesbian Alliance Against Defamation [GLAAD], 2010, p. 6).

*Bullying*: A series of deliberate and repeated actions that are intended to cause physical or emotional harm to a person who is either physically or psychologically less powerful than person committing the actions (Olweus, 2003)

*Coming-out*: “The process in which one acknowledges and accepts one’s own sexual orientation. It also encompasses the process in which one discloses one’s sexual orientation to others” (American Psychological Association, 2011, p. 1).

*Cyberbullying*: “The use of information and communication technologies to support deliberate, repeated, and hostile behaviour by an individual or group, that is intended to harm others” (Belsey, 2008, para. 1).

*Gay*: “The adjective used to describe people whose enduring physical, romantic and/or emotional attractions are to people of the same sex (e.g., gay man, gay people)” (One Colorado, 2011, p. 22).

*Gay/straight alliance (GSA)*: “A student-initiated and student-run club in a public or private school. The goal of a GSA is to provide a safe, supportive environment for lesbian, gay, bisexual, transgender (LGBTQ) and straight ally youth to meet and discuss sexual orientation and gender identity issues, and to work to create a school environment free of discrimination, harassment, and intolerance” (GSA Network, 2009, para.1).

*Gender*: “The socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for boys and men or girls and women” (American Psychological Association, 2006, p. 1).

*Gender expression*: “An individual’s characteristics and behaviors such as appearance, dress, mannerisms, speech patterns, and social interactions that are perceived as masculine or feminine” (One Colorado, 2011, p. 22).

*Gender identity*: One’s “internal sense of being male, female, or something else” (American Psychological Association, 2006, p. 1).

*Heterosexual*: “An adjective used to describe people whose enduring physical, romantic and/or emotional attraction is to people of the opposite sex.” (One Colorado, 2011, p. 22).

*Lesbian*: “A woman whose enduring physical, romantic and/or emotional attraction is to other women. Some lesbians may prefer to identify as gay (adjective) or as gay women” (One Colorado, 2011, p. 22).

*Questioning*: “A person, often an adolescent, who questions her or his sexual orientation or gender identity. Some questioning people eventually come out as LGBT; some don’t” (Lambda Legal, 2012, p. 1).

*Sex*: “Assigned at birth, refers to one’s biological status as either male or female, and is associated primarily with physical attributes such as chromosomes, hormone prevalence, and external and internal anatomy” (American Psychological Association, 2006, p. 1).

*Sexual orientation*: “Refers to an enduring pattern of emotional, romantic, and/or sexual attractions to men, women, or both sexes” may also refer “to a person’s sense of identity based on those attractions, related behaviors, and membership in a community of others who share those attractions” (American Psychological Association, 2008, p. 1).

*Transgender*: “An umbrella term that can be used to describe people whose gender expression is nonconforming and/or whose gender identity is different from their birth-assigned gender” (One Colorado, 2011, p. 23).

*Transsexual*: “Someone who transitions from one gender to another. It includes students who were identified as male at birth but whose gender identity is female, students who were identified as female at birth but whose gender identity is male, and students whose gender identity is neither male nor female” (One Colorado, 2011, p. 23).

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

Bullying has been a longstanding problem within schools across the country. More recently, with the rapid development of new technologies such as smart phones, social media websites, and digital picture and video sharing, the prevalence rate of cyberbullying has begun to increase both within and outside of the schools. Although all students are at risk of being bullied and experiencing the adverse effects of being victimized, youth who identify as being lesbian, gay, bisexual, or transgender (LGBT) experience more severe outcomes as a result of being bullied and report being bullied more frequently than their heterosexual peers (Almeida et al., 2009; Lieberman & Cowan, 2011; Swearer, Turner, Givens, & Pollack, 2008). The body of literature detailing the negative social and emotional outcomes SGM students experience as a result of traditional bullying victimization is well-established; however, little research has been conducted examining the emotional impact cyberbullying victimization has on this group of students.

#### **Sexual and Gender Minority Adolescents**

The following section presents a discussion of the various theories of sexual identity development experienced by SGM adolescents, the coming-out process for these youth after their sexual identity has been established, and the resulting psychological, emotional, academic, and social challenges commonly experienced by these youth.

## **Sexual Orientation Identity Development**

Researchers have long attempted to determine if being gay is the result of genetic, biological, evolutionary, or environmental factors or perhaps a combination of these factors (Savin-Williams, 1988). There are few conclusive findings, but many researchers argue that being gay is the result of a complex interaction between multiple factors (Savin-Williams, 1988). An individual may be SGM without publically identifying as such, and since the 1970s a variety of theories have been proposed to describe the development of one's sexual orientation identity (Bilodeau & Renn, 2005). Typically, these various theories can be classified in one of two groups: traditional stage-models or a more contemporary life-span approach.

One of the first, and most widely accepted, stage theories was proposed by Troiden (1988) who conceptualized sexual identity development as being composed of the following stages: *sensitization*, *identity confusion*, *identity assumption*, and *commitment*. Although this theory is now almost 30 years old, and aspects of this model may have changed with increased societal acceptance of different sexual orientations, it provides a framework for understanding the lengthy process of sexual identity development. Sensitization occurs prior to puberty and is characterized by feelings of marginality and of being different than peers of the same sex. For example, females may feel more masculine or aggressive and males may feel more feminine or interested in the arts. However, during this stage individuals are not typically aware of sexual differences, only that they are different from everyone else. Troiden (1988) added, "the significance of sensitization resides in the meanings that are retrospectively attached to childhood experiences" (p. 107). As individuals get older they are able to look back on their

childhood experiences and label them as possibly homosexual, thereby increasing the possibility that they will identify as being gay or lesbian when they are older.

In the identity confusion stage of Troiden's model, individuals begin to view their behaviors and emotions as being potentially homosexual. This new view of themselves may cause confusion, turmoil, and dissonance. It is during this stage that individuals begin to view themselves as being sexually different from their same-sex peers. Often individuals in this stage experience confusion and are conflicted about their identity due to negative views of homosexuality held by the larger society, misinformation about homosexuality, and variability within their own emotions and behaviors. Troiden (1988) hypothesized that individuals in this stage use denial, repair, avoidance, redefinition, and/or acceptance to resolve their confusion and anxiety. Individuals may deny their homosexual feelings or behaviors or they may seek professional help in order to rid themselves of these feelings and thoughts. During this stage, individuals may use a variety of avoidance strategies; such as restricting the amount of contact with others of the opposite sex in order to avoid having their sexual orientation discovered or they may avoid contact with any type of information about homosexuality. Additionally, some individuals immerse themselves into the heterosexual world in order to "fix" themselves; others may begin to use drugs or alcohol to alleviate the intensifying feelings of anxiety and dissonance (Troiden, 1988). Alternatively, individuals may also grow to accept their feelings, behaviors, and thoughts and may purposefully seek out information about homosexuality.

During the third stage in Troiden's (1988) model, identity assumption, individuals identify themselves as being gay and begin to present this identity to other individuals in

their lives. At this stage of identity development, individuals are tolerant of their identity as homosexual, but typically not accepting. For example, an individual may be tolerant of her or his homosexual identity in the present moment, but may be uncertain about what this identity will look like in the future. Individuals in this stage also begin to interact with other members of the LGBT population. These interactions have the potential to encourage further development of a healthy sexual orientation identity or the potential to cause increased confusion and anxiety. Individuals who are in this stage also learn strategies to decrease the potential ostracism and stigma associated with being gay. For example, individuals may completely avoid contact with anything or anyone related to the LGBT community because they lack of acceptance of their own identity and hold the belief that avoiding this population will allow them to be less ostracized. In contrast, they may use a strategy called minstrelization where they behave in ways they believe society expects them to or they may use group affiliation where they become actively involved in the LGBT community, to increase their acceptance of their identity and to avoid stigmatization by surrounding themselves with people they view as being similar. The most common strategy used by individuals in this stage is called passing and is seen when individuals who are gay hide their identity from the outside world. Troiden (1988) says, “passers lead ‘double-lives’—that is, they segregate their social worlds into heterosexual and homosexual spheres and hope that the two never collide” (p. 110). At the end of this stage, individuals have moved from tolerating their LGBT identity to accepting it.

The fourth stage of Troiden’s (1988) model is commitment. Individuals enter this stage when they begin to have same-sex romantic relationships. There is both an internal

and external component to commitment. Individuals become internally committed to their newly accepted identity when they successfully integrate their sexuality and emotions and begin to view people of the same-sex as sources of both emotional and physical satisfaction. Additionally, individuals who are internally committed view their homosexual identity as “a state of being and way of life, rather than merely a form of behavior or sexual orientation” (Troiden, 1988, p. 111). Lastly, an internally committed person is satisfied with her or his sexual orientation and would not alter this identity if given the opportunity. Individuals show their external commitment to their sexual identity by coming-out to other people in their lives, entering into same-sex committed relationships, and by utilizing new stigma management strategies. For example, instead of using minstrelization or passing, an externally committed individual may blend and act in a gender-appropriate way, while neither confirming nor denying their sexual orientation identity. They may also use covering in which they will admit their sexual orientation, but will still try to act in such a way that they are viewed positively, despite potential negative stigmas.

In contrast to Troiden’s model, D’Augelli (1994) proposed a life-span approach to sexual identity development that can be applied to both SGM and heterosexual adults. D’Augelli (1994) argues that traditional stage models of sexual identity development fail to take into account the context surrounding the individual and proposes that a model of sexual identity development that uses a human development perspective as a framework is more appropriate. Identity development was defined in D’Augelli’s (1994) model as the, “dynamic processes by which an individual emerges from many social exchanges experienced in different contexts over an extended historical period” (p. 324).

Additionally, D'Augelli argued that stage models did not account for individuals' cognitive, emotional, and physical growth as well as their personal relationships, communities, culture, and historical setting.

The main characteristics of a human development model of sexual orientation identity formation are that people change and develop throughout their entire lives; that development is not static and can be influenced by biological or environmental factors; and that the development of individuals is unique to each and their stage of life, physical setting, and the historical period in which they live (D'Augelli, 1994). For example, a gay adolescent coming of age in the 1950s when homosexuality was not widely accepted may have had a much different experience than today's youth. The final characteristic of the human development model is that individuals take an active role in the development of their sexual identity and are able to decide how to respond in various situations with different people.

D'Augelli (1994) stated that a model of sexual identity development must therefore include three sets of interactive variables: personal subjectivities and actions, interactive intimacies, and sociohistorical connections. Personal subjectivities and actions include individuals' attitudes and beliefs about their sexual identity throughout the course of their lives, their perceptions of their sexual lives, and how the meanings they attribute to their sexual activities change over time. These subjectivities also have influence over and can be influenced by the second set of variables, the person's interactive intimacies. Included in this group of variables are family and peers' views and how they impact the development of an individual's sexuality, and how these views affect the individual's relationships with others. The third set of variables, sociohistorical connections, is

affected by the relationships in the previously mentioned set of variables and is responsible for the views held by the individual's family and friends. Included in the sociohistorical variables are social norms, local and national policies and laws, and broad cultural and historical events. "The goal is to locate an individual's life within a dynamic matrix of these three sets of factors" (D'Augelli, 1994, p. 318).

Each individual goes through six independent processes that may occur in any order: exiting heterosexuality, developing a personal LGB identity, developing an LGB social identity, becoming an LGB offspring, developing an LGB intimacy status, and entering an LGB community (Bilodeau & Renn, 2005). These processes do not necessarily develop at equal rates and individuals may be at different points of development within the same process. For example, a person may be open with her or his SGM identity, but may not share this identity with colleagues when beginning a new job. Exiting heterosexuality occurs when individuals recognize that they are not heterosexual because of their feelings and sexual attractions, and when they begin to come out to other individuals in their life. When individuals develop a personal LGB identity they learn how to be LGB through interacting with other LGB individuals and they begin to refute previously internalized myths about being LGB, such as the stereotype that LGB individuals are unable to have children or are never in successful long-term relationships. The process of developing a social LGB identity involves developing a network of supportive individuals who are aware of the person's LGB identity status and who are affirming of this status, not merely tolerant of it (D'Augelli, 1994).

One of the most important processes according to D'Augelli (1994) was becoming an "LGB offspring," which involved individuals coming out to their families

and ideally being reintegrated back into the family, possibly after a period of time has passed. Ideally, the individual's family will be supportive and affirming, but each member of the family may react in different ways and some family members may try to contain the individual's sexual identity and ultimately reinforce negative stereotypes. Developing an LGB intimacy status involves forming same-sex romantic relationships, which is often difficult for individuals due to a lack of positive examples of same-sex relationships. The process of entering into the LGB community involves activity in political and social demonstrations and actions. D'Augelli (1994) stated that having a sexual orientation identity that is meaningful "leads to a consciousness of the history of one's own oppression" and ultimately leads to an understanding of the presence of that same oppression and "a commitment to resisting it" (p. 328).

D'Augelli's (1994) human development model takes into account the fluidity of sexual identity development and acknowledges the role that an individual's surrounding environments may have had on this identity development. These theoretical understandings help clarify the importance of positive and supportive relationships in the development of a healthy sexual orientation identity. Unfortunately, when SGM youth experience hostile and unsupportive peer relationships, such as those seen in cyberbullying and traditional bullying, they become vulnerable to a myriad of negative outcomes (e.g., depression, anxiety, suicidality). Conversely, positive relationships, formed or maintained throughout an individual's coming out process, may act as protective factors against the negative effects of cyberbullying.

### **The Coming-Out Process for Sexual and Gender Minority Youth**

Coming-out “is among the most stressful gay-related life events noted by gay youths” (Maguen et al., 2002, p. 219). Sexual and gender minority youth may be fearful of their family or friends’ reactions and may attempt to hide their true identities. Unfortunately, this deception may cause the individual to experience social isolation, insecurity, and decreased self-esteem (Hetrick & Martin, 1987). While the coming-out process varies greatly from person to person, some generalizations about the steps in the process can be made. Maguen et al. (2002) found that the median age at which LGB adolescents reported being aware of their same-sex attraction was 11, and the median age in which they had sexual contact with someone of the same sex for the first time and also disclosed their sexual orientation to someone for the first time was at age 16. These findings are generally consistent with results from previous studies which found that youth were first aware of being attracted to members of the same sex when they were between the ages of 10 and 11, first identified as being LGB when they were between the ages of 14 and 16, and first disclosed this orientation to someone else when they were between the ages of 14 and 16 (D’Augelli et al., 1998; D’Augelli, Hershberger, & Pilkington, 2001; D’Augelli, Pilkington, & Hershberger, 2002; D’Augelli et al., 2005).

Lesbian, gay, and bisexual adolescents tend to come out to a friend first, and then to their parent(s), with the average age of disclosing to a parent occurring around the age of 17 (D’Augelli & Hershberger, 1993; Herdt & Boxer, 1993; Savin-Williams, 1998). A more recent PEW survey found that nearly a quarter of LGBT participants under the age of 30 had come out to a family member or friend prior to the age of 15 (Pew Research Center, 2013). More specifically, 95.0% of the LGB adolescents sampled reported they

had come-out to a friend, 84.0% had come-out to their mother, and 67.0% had come-out to their father (Maguen et al., 2002). While many SGM youth choose to first disclose their sexual orientation during their adolescence, it is important to understand that one's sexual orientation identity is present from birth and continues to grow and develop throughout her or his lifespan, thus sexual identity development and acceptance is a process, rather than a single event (Cass, 1979; Troiden, 1988).

### **Family and Peer Rejection**

Family and peer rejection is a legitimate fear that many SGM youth experience when they are considering coming out to their family or peer group, as well as throughout the course of their life. Fear of disclosing one's sexual orientation identity to family and friends may be instilled from an early age as a result of the messages being conveyed to children by their parents about homosexuality. One study sampled 912 gay and bisexual Latino adult men and found that as children, 91.0% had grown up being told that being gay was not normal, 71.0% were told that people who were gay would never be in a committed relationship, and 70.0% were raised believing that being gay would bring shame upon their family (Diaz, Ayala, Bein, Henne, & Marin, 2001).

This fear was not unfounded, as nearly half of LGB adolescents reported that they had lost friends as a result of disclosing their sexual orientation (D'Augelli et al., 1998). Lesbian, gay, and bisexual adolescents who lost friends after disclosing their sexual orientation were significantly more likely to have mental health problems and were significantly more likely to report having attempted suicide in the past (D'Augelli, 2002).

Many SGM youth struggle with accepting their sexual orientation because of pervasive negative beliefs, especially those held by their male peers. For example, in a

study conducted of 1700 youth between the ages of 11 and 16 from the United Kingdom, 60% reported that they believed that homosexuality was always wrong, with more boys endorsing this belief than girls (42.0% versus 18.0% respectively; Sharpe, 2002). Boys' beliefs regarding homosexuality remained relatively stable over time, while girls' beliefs became more liberal as they aged. Additionally, when boys discussed homosexuality they generally spoke in terms of disgust and spoke about it "as though being gay was contagious...endorsing more the notion of homosexuality as a disease" (Sharpe, 2002, p. 268).

Age differences in the views of homosexuality have also been found in the literature. For example, Horn (2006) sampled 350 heterosexual adolescent and young adult males between the ages of 14 and 26 and found that those individuals in 10th grade were significantly more uncomfortable interacting with LGBT peers than 12th grade students or college students. This finding highlights the need for early education and prevention efforts surrounding victimization of LGBT students in schools. Although Sharpe (2002) described males' beliefs as staying consistent across time, Horn's (2006) findings suggest that like females, males could become less rigid in their beliefs as they get older. It is possible that these differences may reflect a greater societal acceptance of SGM sexual orientations.

Coming out to one's peers is difficult because of the fear of losing friends, but coming out to one's family is no less difficult. In a national study of 542 LGB adolescents who were between the ages of 14 and 21, 42.0% of the participants said that telling their families about their sexual orientation was either extremely troubling or very troubling and 41.0% said that telling their friends about their sexual orientation was either

extremely or very troubling (D'Augelli, 2002). Fear of disclosing one's sexual orientation to family members is well justified. For example, in a study conducted with 105 LGB adolescents between the ages of 14 and 21 who had disclosed their sexual orientation to their families, the youth participants described only 51.0% of the mothers, 27.0% of the fathers, and 57.0% of the siblings as completely accepting of their sexual orientation (D'Augelli et al., 1998). Furthermore, fathers were more likely to be rejecting of their child and were more likely to show negative reactions than mothers of LGBT adolescents (D'Augelli et al., 1998). Merighi and Grimes (2000) identified patterns of parental reactions in their study of 57 gay men between the ages of 18 and 24. They found that parents reacted in one of four ways: (a) support through action, (b) support that preserves a kinship bond, (c) avoidance, and (d) distancing and disengagement.

As might be expected, the experience of being rejected by one's parents is associated with higher levels of mental health problems and substance use among SGM youth. In his study of 542 LGB adolescents, D'Augelli (2002) found that these youth had significantly higher scores on measures of somatization, obsessive-compulsiveness, interpersonal sensitivity, depression, anxiety, hostility, paranoid ideation, and psychoticism than LGB adolescents who had mothers and fathers who were accepting of their sexual orientation disclosure. Moreover, adolescents who had two rejecting parents scored significantly higher on measures of somatization, anxiety, and phobic anxiety than LGB adolescents who had one parent who was accepting (D'Augelli, 2002). Rejecting reactions also have an impact on LGBT adolescents' substance use and abuse (Rosario, Schrimshaw, & Hunter, 2009). In a sample of 156 LGB adolescents between the ages of 14 and 21, adolescents whose parents had rejecting reactions to their disclosure had

significantly more symptoms of substance abuse and reported using tobacco, alcohol, and marijuana more often than adolescents who experienced accepting reactions.

Furthermore, accepting parental reactions to the adolescent's disclosure acted as a moderator for current and later alcohol use (Rosario et al., 2009).

In too many instances, the home environment becomes unsafe for youth who disclose to their parents and who are met with hostile rejection. D'Augelli et al. (1998) found that LGB adolescents who disclosed to their families experienced more familial verbal abuse, physical threats, and physical attacks than LGB youth who did not disclose their sexual orientation to their families. Verbal abuse appeared to be the most common type of victimization with 28.0% of adolescents reporting this type of abuse from their mothers and 19.0% endorsing verbal abuse from their fathers. However, rates for other types of aggression were also high with 22.0% of females and 14.0% of males reporting verbal threats, 10.0% experiencing physical assaults (Pilkington & D'Augelli, 1995). More recently, Kenagy (2005) studied domestic victimization of 80 transgendered individuals between the ages of 17 and 68. Of these participants, 56.3% had experienced violence in their homes and 51.3% had been physically abused.

Despite the fact that the majority of the research on family reactions to the coming-out process is focused on negative aspects of the parent-child relationship, some research has reported on the more positive outcomes for out LGBT youth (Ryan et al., 2010). In a study of 245 LGBT young adults between the ages of 21 and 25, researchers found that those participants who reported having high levels of family acceptance scored significantly higher on measures of self-esteem, social support, and general health (Ryan et al., 2010). These findings were consistent with the earlier work of D'Augelli (2002)

who found that LGB adolescents who reported having positive relationships with their parents had fewer mental health problems. Conversely, LGBT youth who experienced low levels of acceptance were significantly more likely to experience depression, substance use, and suicidal ideation and attempts (Ryan et al., 2010). The experience of having a supportive family who accepts one's sexual orientation appears to be related to better outcomes for SGM youth and may help to buffer against negative reactions and stereotypes encountered in other areas of the young person's life (e.g., school, community, and media).

### **Psychological and Emotional Challenges Facing Sexual and Gender Minority Youth**

Sexual and gender minority youth face numerous psychological and emotional challenges. As a result of their sexual orientation, these youth are considered to be a part of a stigmatized minority group in society and as such are at risk of experiencing *minority stress* (Meyer, 2003). Specific psychological and emotional stressors faced by these adolescents include an increased negative view of one's self (i.e., internalized homophobia), an increased risk of developing internalizing disorders such as anxiety and depression, and the increased risk of attempting or completing suicide.

### **Minority Stress**

The concept of minority stress, defined as “the excess stress to which individuals from stigmatized social categories are exposed as a result of their social, often a minority, position,” (Meyer, 2003, p. 675) was the result of an amalgamation of several sociological and social psychology theories. This concept may be applied to people who belong to minority groups as a result of their race, sex, religion, sexual orientation, and so

forth. However, there are several underlying characteristics that make up the concept of minority stress: (a) minority stress is unique in that while everyone experiences stressors, people from minority groups experience additional stress and must rely on more coping skills to deal with this stress adaptively, (b) minority stress is chronic because it is closely tied to societal and cultural views about the stigmatized group that are relatively stable, and (c) minority stress is socially based because the stress is the result of external social institutions and structures (Meyer, 2003). In regards to minority stress experienced by SGM individuals, Meyer (1995) stated that the concept of minority stress was “based on the premise that gay people . . . are subjected to chronic stress related to their stigmatization” (p. 38).

Sources of minority stress can be broken down into external (e.g., physical violence, verbal abuse, discrimination) and internal (e.g., negative attitudes about one’s sexual orientation, stigma, etc.) components (Rosario, Schrimshaw, Hunter, & Gwadz, 2002). Meyer (1995) described three primary sources of minority stress in LGBT individuals: (a) internalized homophobia, which is the “direction of societal negative attitudes toward the self” (p. 39), (b) stigma, an individual’s “expectations of rejection and discrimination” (p. 38), and (c) discrimination, including forms of rejection and violence. In a longitudinal study of 741 gay men between the ages of 21 and 76, Meyer (1995) found that experiencing any of three sources of minority stress was a significant predictor of psychological distress, including demoralization, guilt, sex problems, suicide, and AIDS-related stress. Furthermore, the results indicated, “minority stress is associated with a two- or threefold increase in risk for high levels of distress” (Meyer, 1995, p. 51).

The concept of minority stress is important to keep in mind when considering the experiences of SGM youth both in and outside of school and the potential negative outcomes associated with being SGM. Being a member of a minority group often causes individuals to have a heightened awareness of their differences from those in the majority group. Sexual and gender minority adolescents may develop a negative self-image as a result of this increased awareness of their differences from others and their understanding of the often negative views of society on their sexual orientation status.

### **Negative Self-Image**

Sexual and gender minority adults often recall feeling different from their peers as they were growing up, even though they may not have realized the reason for this feeling of difference until they reached adolescence. All children grow up in a broader society that tends to regard deviations from heterosexuality as unacceptable and negative, so children who later identify as SGM often grow up believing that they are unacceptable to society. Furthermore, according to models of identity development (e.g., D'Augelli, 1994), individuals become aware of their sexual orientation before they develop a positive or negative attitude about it and become accepting of their sexual orientation. Despite over two decades of increasing social acceptance of SGM individuals, SGM youth are at an increased risk of experiencing internalized homophobia, which results in self-hatred and decreased self-esteem. Moreover, LGBT adolescents may believe they are evil or are inferior or they may appear to accept their identity, while tolerating discrimination and abuse from other people in their lives. Adolescents with internalized homophobia may also refuse to apply for jobs or go to college because they believe they will be discriminated against because of their sexual orientation (Gonsiorek, 1988).

This lack of self-acceptance is related to higher levels of internalizing symptoms among SGM adolescents and adults. Igartua et al. (2003) sampled 197 LGBT participants from Canada who were between the ages of 18 and 63 in order to examine the relationship between internalized homophobia, anxiety, depression, substance use and abuse, and suicidality. The results of the study revealed that there was a significant correlation between participants' negative feelings about their homosexuality and higher levels of depression, anxiety, and suicidality. The researchers found that scores on the internalized homophobia scale accounted for 18.0% of the variance in depression scores and 13.0% of the variance in anxiety scores, suggesting that although LGBT individuals who have internalized homophobia are more likely to experience higher levels of internalizing disorders, this factor only accounted for a small percentage of the variance (Igartua et al., 2003).

Not surprisingly, efforts to pass or deny one's sexual orientation are related to higher levels of homonegativity. For example, Carragher (2000) surveyed a national sample of 203 gay men between the ages of 18 and 30 who had not disclosed their sexual orientation status when they were in high school. Participants who described themselves as displaying more gender typical behaviors in high school also endorsed higher levels of personal homonegativity (Carragher, 2000). Furthermore, Carragher (2000) found that higher levels of self-esteem were negatively correlated with personal homonegativity scales, while higher levels of psychological distress were associated with higher personal homonegativity scores. Clearly, SGM individuals who view their sexual orientation in a negative manner are more vulnerable to internalizing disorders and overall psychological distress.

## **Internalizing Disorders**

Sexual and gender minority adolescents who struggle with internalized homophobia and minority stress are also at risk of developing internalized disorders such as depression and anxiety. Meyer (2003) conducted a meta-analysis of ten studies in order to analyze the prevalence of mental health disorders in LGB individuals compared to a heterosexual group. Results indicated that LGB individuals are 2.41 times more likely to have a mental health disorder, such as depression or anxiety than their heterosexual counterparts. Meyer (2003) noted that this higher rate of depression, anxiety, and substance abuse disorders was only found in studies that used a randomized sample of LGB individuals. More typically, researchers have used non-randomized samples, which may result in fewer statistically significant findings (Meyer, 2003). Nevertheless, even with less than optimal sampling procedures, higher rates of internalizing symptoms are consistently found among SGM populations.

When compared to their heterosexual peers, LGBT adolescents were significantly more likely to report experiencing depression (D'Augelli, 2002; Russell & Joyner, 2001), obsessive-compulsiveness, interpersonal sensitivity, anxiety, hostility, and psychoticism (D'Augelli, 2002). Gay, bisexual, and transgender adolescent males who experienced discrimination because of their sexual orientation were more likely to report higher levels of depressive symptoms than their heterosexual peers (Almeida et al., 2009). Lesbian, gay, bisexual, and transgender females indicated significantly higher levels of depression, anxiety, and sleep disturbances than LGBT males (D'Augelli et al., 2002). In addition to their own negative views of themselves, a lack of peer support may also contribute to

poor psychological outcomes for SGM youth. For example, Martin and D'Augelli (2003) found that lesbian and gay youth endorsed more loneliness than their heterosexual peers.

### **Suicidality**

Due to this increased risk of internalizing disorders experienced by LGBT youth, these adolescents are also more likely to experience suicidal ideation, engage in self-harming behaviors, and report more previous suicide attempts than heterosexual adolescents (Almeida et al., 2009; Garofalo et al., 1999; Robinson & Espelage, 2011; Russell & Joyner, 2001). These findings are not surprising given the fact that LGBT youth experience victimization due to their sexual orientation, stigmatization, and lack resources designed to help them with these negative life experiences (Paul et al., 2002). For example, Garofalo et al. (1999) sampled 3,365 public high school students from Massachusetts using the Youth Risk Behavior Survey of health risk behaviors and found that lesbian, gay, and bisexual adolescents were 3.88 times more likely to have attempted suicide than heterosexual students and that gay and bisexual male students were 6.5 times more likely to have attempted suicide than heterosexual males. After controlling for variables such as age and sexual activity, “sexual orientation had the second highest odds ratio for predicting a suicide attempt” (Garofalo et al., 1999, p. 491) followed by being a female, which had the highest odds ratio for predicting a suicide attempt. The probability of females reporting a suicide attempt in the previous 12 months was 4.43 times that of a male reporting a previous suicide attempt, while the probability of an LGB youth reporting a suicide attempt in the past year was 2.28 times that of a heterosexual adolescent (Garofalo et al., 1999).

As noted, negative views of one's sexual orientation are associated with higher rates of suicidal ideation and attempts. D'Augelli et al. (2001) found that 57.0% of LGB adolescents who had attempted suicide in the past said that the reason they first attempted to commit suicide was because of their sexual orientation. Those individuals who had attempted suicide because of their sexual orientation rated themselves as having more negative views of being gay than LGB adolescents who had attempted suicide for reasons other than their sexual orientation status. Even if SGM adolescents do not attempt suicide, there are very high rates of suicidal ideation as related to sexual orientation. D'Augelli et al. (2002) found that 42.0% of gay and bisexual males and 25.0% of lesbian and bisexual females reported having suicidal thoughts at least sometimes or often and 48.0% of the same respondents said that they considered suicide due to their sexual orientation. Bisexual adolescents were also found to be significantly more likely to report experiencing suicidal ideation than their lesbian, gay, and heterosexual peers and were also found to have more internalized negative attitudes about homosexuality than their gay or heterosexual peers (Robinson & Espelage, 2011; Rosario et al., 2002).

Sexual and gender minority males may be especially vulnerable to suicidal ideation and attempts due to their sexual orientation as they are more likely to hold negative attitudes toward homosexuality (Rosario et al., 2002). More males than females reported that their attempted suicide was due to their sexual orientation (D'Augelli et al., 2005; D'Augelli et al., 2001) and in one population-based study of LGB adolescents, being bisexual or gay was found to be significantly associated with suicide attempts and suicidal intent in males, but not females (Remafedi, French, Story, Resnick, & Blum, 1998).

External stressors could also account for the high rate of suicide attempts reported by Paul et al. (2002). Of the 2,881 gay and bisexual men surveyed, 8.3% reported attempting suicide at least once prior to the age of 25 and that these attempts were significantly associated with experiencing parental substance abuse, anti-gay verbal abuse, recent disclosure of their sexual orientation status, and birth cohort. Lesbian, gay, and bisexual adolescents who attempted suicide experienced significantly more gay-related stressors than those who had not attempted suicide, such as disclosing their sexual orientation to friends and family or being victimized due to their orientation status (Rotherham-Borus, Hunter, & Rosario, 1994). Similar rates of suicidality were reported among transgendered adults (Clements-Nolle, Marx, & Katz, 2006; Kenagy, 2005).

Simply identifying as SGM is not the sole reason for increased suicidality in this population, but rather it is likely caused by a combination of internal and external factors. In light of this increased risk, it is also critical to understand what factors either increase or decrease SGM adolescents' likelihood of attempting suicide. Hershberger, Pilkington, and D'Augelli (1997) found that LGB adolescents who had attempted suicide reported being aware of their sexual orientation at an earlier age and were more open about their orientation with others, had a longer time period pass between first being aware of their same-sex attractions and disclosing this orientation to someone else, having more sexual partners, having lost more friends when they came out, having lower self-esteem, more substance use, and more depression. These results supported earlier findings by Remafedi, Farrow, and Deisher (1991) who concluded that, "with each year's delay in self-identification, the odds of a suicide attempt declined by more than 80%" (p. 873).

Sexual and gender minority youth who attempt suicide are clearly experiencing more distress than their peers. Russell and Joyner (2001) found that LGB adolescents who attempted suicide had significantly higher ratings of hopelessness and depression and were more likely to have a family member who had also attempted suicide than their heterosexual peers. Based on their review of the literature, Kulkin, Chauvin, and Percle (2000) suggested that negative attitudes about homosexuality held by society and religious institutions, low self-esteem due to internalized homophobia, a lack of inclusion of LGBT issues in classes in school, and inadequate safeguards for LGBT adolescents at school as some of the potential causes of the increased suicide risk in SGM youth.

Lesbian, gay, and bisexual adolescents who did not report attempting suicide had fewer same-sex sexual partners, had reached sexual developmental milestones at later ages, experienced less victimization, had less problems with their mental health, and were less open about their sexual orientation status (Hershberger et al., 1997). Furthermore, lesbian, gay, and bisexual adolescents who reported better relationships with their family, higher levels of community involvement, and had greater overall perceptions of themselves and their lives were less likely to report having attempted suicide or having suicidal ideation than their lesbian, gay, and bisexual peers who had lower scores in these areas (Proctor & Groze, 1994).

One of the more puzzling findings is that adolescents who disclose their sexual orientation to their parents and siblings are significantly more likely to have attempted suicide and to experience more frequent thoughts of suicide than their non-disclosed peers (D'Augelli et al., 1998; D'Augelli et al., 2005; Hershberger et al., 1997; Igartua et al., 2003; Rotherham-Borus et al., 1994). Although some research suggests that coming

out to one's significant others can be associated with more positive outcomes (e.g., Ryan et al., 2010), it is likely that the reactions of parents, friends, and siblings play an important role in whether SGM youth develop suicidal thoughts and actions. Adolescents who experienced verbal abuse from their parents regarding their sexual orientation and who were more gender atypical as a child were more likely to attempt suicide and have more frequent thoughts of suicide (D'Augelli et al., 2005).

Adolescents, regardless of their sexual orientation, are experiencing many changes in their identity and the timing of their self-disclosure may be important to the level of distress they experience. For example, Igartua et al. (2003) found that more suicidal ideation was associated with time periods when participants were beginning to interact and build connections with other LGBT individuals. Other researchers (Paul et al., 2002) noted that the average age at which participants reported first disclosing their sexual orientation to someone else has decreased, which indicates that LGB adolescents may be at an increased risk for attempting or completing suicide if an early disclosure age is a risk factor for suicidality. Older adolescents may have developed a stronger sense of identity and may be better able to withstand potentially negative reactions from others. According to D'Augelli's (1994) model, individuals' personal beliefs about being gay, the beliefs of the people they are surrounded by, and portrayals in popular culture impact their sexual identity development. Therefore, if an adolescent, who may already be struggling with typical challenges experienced during this developmental period, is also struggling with sexual orientation identity development and comes out to family or peers who are negative and unsupportive, this may contribute to suicidality. Sexual and gender minority adults who come-out when they are past adolescence may be able to find

supportive peers and community groups, which may contribute to lower rates of suicidality.

### **Social Challenges Facing Sexual and Gender Minority Youth**

In addition to psychological and emotional challenges facing SGM youth, they also are at a higher risk for becoming a victim of discrimination and violent acts based on their sexual orientation status. Furthermore, they face an increased risk of peer and family rejection due to their sexual orientation, which has been associated with higher rates of poverty and homelessness both in their adolescence and throughout their adult lives.

Mays and Cochran (2001) found that LGB individuals are significantly more likely than heterosexual individuals to report being the victim of discrimination, and 42.0% of those who reported experiencing discrimination said that they were discriminated against either partially or completely because of their sexual orientation status. Lesbian, gay, and bisexual victims of discrimination were significantly more likely than heterosexual victims of discrimination to say that life was more difficult because of their experiences with discrimination and to report that being discriminated against interfered with their ability to live a fulfilling and productive life (Mays & Cochran, 2001). Additionally, LGB victims of discrimination were significantly more likely to have a comorbid psychiatric disorder than heterosexual victims of discrimination (Mays & Cochran, 2001).

Lesbian, gay, bisexual, and transgender adolescents are more likely to experience discrimination based on their perceived sexual orientation than their heterosexual peers (Almeida et al., 2009). Much of the discrimination and violence that occurs to LGBT youth takes place in schools (Kosciw et al., 2012). Twenty-four percent of LGB youth

under the age of 21 were threatened with violence, 11% were attacked physically and another 11.0% had objects thrown at them, while 5% were sexually assaulted, and 20% were threatened with revealing their sexual orientation to others without permission (D'Augelli et al., 2002). It is no surprise then that LGB students are fearful of attending school and are more likely to report carrying a weapon to school or to be involved in a physical fight (Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998). Similarly, Robin et al. (2002) analyzed data from 22,764 high school students in Vermont and Massachusetts who completed the Youth Risk Behavior Survey and found that high school students who were bisexual were significantly more likely to report feeling unsafe at school, to bring a weapon to school, to be threatened with a weapon at school, to get in a fight, and to have their property stolen than heterosexual students were.

A strong support system may help to prevent some of the negative outcomes associated with victimization. For example, LGB adolescents who experienced less severe forms of victimization, such as verbal taunting, and who had support from their families experienced less of a negative impact from that victimization (Hershberger & D'Augelli, 1995). However, family support did not lessen or protect adolescents from the negative effects of moderate or severe forms of victimization (Hershberger & D'Augelli, 1995).

Using the National Longitudinal Study of Adolescent Health, a sample that included 10,537 adolescents in seventh through twelfth grade, Russell, Franz, and Driscoll (2001) found that LGB adolescents were significantly more likely than heterosexual students to have been in a fight that required medical attention and were significantly more likely to witness acts of violence. Bisexual students in the sample were

more likely to report having been jumped or attacked violently and lesbian or gay students were more likely to commit acts of violence, but this difference became insignificant when controlling for witnessing violence and requiring medical attention as the result of a fight (Russell et al., 2001). The authors hypothesized that due to a lack of resources and spaces that provide a sense of community for LGBT youth, these adolescents may seek out this sense of belonging by going to gay bars and clubs, which are commonly located in less safe areas of cities. By frequenting these businesses, LGBT youth may be exposed to increased acts of violence and may also feel increasingly unsafe personally. Consistent with previous research, these authors found that LGBT adolescents were more likely to carry weapons (e.g., Garofalo et al., 1998; Robin et al., 2002) and were more likely to actually use these weapons. This increased rate of carrying and using weapons among LGBT youth may be related to feeling that they need to defend themselves or may be a reaction to their fear (Russell et al., 2001).

Sexual and gender minority adults are also at risk of becoming victims of hate crimes due to their sexual orientation. Dunbar (2006) examined the impact that being a victim of a hate crime has on LGB adults, and found that participants were significantly more likely to be the victim of a more severe hate crime, such as sexual or physical assault, than people targeted because of their race or religion. Lesbian, gay, and bisexual victims of hate crimes were also more likely to be negatively impacted after the crime occurred than other victims of violent hate crimes (Dunbar, 2006). Similarly, Herek, Gillis, and Cogan (1999) found that victims of hate crimes rated themselves higher on depression, traumatic stress, and anxiety than victims of crimes that were not motivated by sexual orientation. Additionally lesbian and gay victims of hate crimes were more

fearful of crime, felt more vulnerable, had less faith in the goodness of people, and felt less self-efficacy (Herek et al., 1999).

Unfortunately, the rate of victimization of SGM individuals is increasing rather than decreasing. Paul et al. (2002) noted that there was an increase in the amount of victimization that gay or bisexual men experienced prior to turning 17. Twenty-eight percent of the participants who were at least 25 in 1970 experienced victimization prior to the age of 17, compared to 52.0% of participants who were 25 after 1980, indicating an increase in victimization over time (Paul et al., 2002). It has been clearly demonstrated throughout the literature that SGM adolescents are at an increased risk of being the victims of discrimination, violence, and victimization at home, work, and school. Many straight adolescents continue to report feeling uncomfortable interacting with their SGM peers and are more likely to believe that homosexuality is unnatural. Unfortunately, these negative beliefs may also lead to an increase in victimization of these SGM peers. Sexual and gender minority adolescents are more likely to be physically and verbally threatened and attacked as a result of their sexual orientation. The most common place for this type of victimization to occur is in the schools, which can lead to increased truancy and decreased achievement. One of the most common forms of victimization in schools is bullying, which can occur in the form of physical, verbal, or relational aggression and SGM adolescents are at an increased risk of experiencing this type of victimization.

### **Theoretical Perspectives of Bullying**

Bullying is a complex problem that involves multiple individuals, groups, and larger systems. In order to gain a comprehensive understanding of bullying and its impact on students, it is important to view bullying from an ecological perspective. Pepler,

Craig, and O'Connell (1999) argued "bullying does not occur in a vacuum, but most often in the context of a peer group" (p. 447). Bronfenbrenner's (1977) bioecological model of human development can be used to explain the complex relationships and systems of which each person involved in bullying is a part. Bronfenbrenner noted that the individual's environment is a set of different systems that are nested within each other. The first system outside of the individual is the microsystem, or "the complex relations between the developing person and environment in an immediate setting containing that person (e.g., home, school, workplace, etc.)" (Bronfenbrenner, 1977, p. 514). The microsystem includes the child's peer group and school environment, as well as the child's family members. Bronfenbrenner noted that one of the most important aspects of the microsystem is the reciprocal nature of the relationships within it. The child's behaviors and attitudes affect other members in the microsystem, just as the behaviors and beliefs of members of the microsystem affect the child.

The next system is the mesosystem, which is comprised of interactions between groups in the individual's microsystem. The mesosystem could include interactions between the individual's school and family or the child's peers and school. Following the mesosystem is the exosystem, which is a system that contains social structures or groups that influence the individual, even though the individual is not an immediate member of the specific group. The structures of the exosystem "include the major institutions of the society" and described these as including "work, the neighborhood, the mass media, [and] agencies of government" (Bronfenbrenner, 1977, p. 515). The last system is the macrosystem, which includes the cultures, societal expectations, and norms that

encompass the groups within each of the smaller systems. With this broad framework in mind, Swearer and Doll (2001) stated that:

When the ecological perspective is applied to bullying, a bullying interaction occurs not only because of individual characteristics of the child who is bullying, but also because of actions of peers, actions of teachers and other adult caretakers at school, physical characteristics of the school grounds, family factors, cultural characteristics, and even community factors. (p. 10)

As a result of the reciprocal nature of the relationships between the systems in Bronfenbrenner's ecological model, one child's tendency to be impulsive, aggressive, or unempathetic may make him or her more likely to become a bully, but the development and manifestation of these characteristics is also dependent on the reactions of the people and systems within the child's environment (Swearer & Doll, 2001). At the exosystem, students may be influenced both directly and indirectly by the superintendent (e.g., whether there are district policies against hate speech) and the school board (e.g., forced reduction in school staff resulting in inadequate adult supervision of students). On a daily basis, students are impacted by how teachers and adults in their microsystem respond to them when they report being bullied or when adults witness a student bullying others. Teachers may choose to be proactive and present in the halls to enforce a no-tolerance policy for negative slurs, intimidation, and bullying due to an individual's sexual orientation. Alternatively, teachers may be unsure of how to respond to reports of bullying or may underestimate the severity of the problem, so they may indirectly make students feel unsupported and unsafe. Lastly, students are influenced by the relationships across microsystems (i.e., the mesosystem). For example, a school principal may be unresponsive to a student's parents or reports about their child's victimization or alternatively, may support a bullying prevention program that includes a family training

component to provide parents with strategies to prevent bullying or victimization behaviors. From these brief examples, it is clear how the actions, practices, or policies in schools can either decrease or increase the likelihood that which may ultimately decrease the likelihood that bullying will occur.

Within the ecological perspective, children who bully or who are victims of bullying are not viewed as having something wrong with them nor is there anything inherently wrong within their environments, rather bullying occurs because of the negative and inappropriate reciprocal relationships and interactions between individuals in each context (Swearer & Doll, 2001). Therefore, Pepler et al. (1999) argued that the prevention and intervention of bullying must occur through viewing bullying from an ecological systems theory perspective, which allows practitioners to “move beyond our focus on individual bullies and victims to an understanding of the complex processes that underlie and sustain these problems” (p. 451). Individuals who wish to gain a better understanding of bullying must focus on the relationships within each system of Bronfenbrenner’s ecological model, not only on the individuals involved in the bullying dyad (Pepler et al., 1999). This theoretical model serves as a foundation for understanding both traditional bullying and the more recent phenomenon of cyberbullying and underscores the importance of viewing bullying in a broader context, which enables school professionals to effectively prevent and intervene in bullying incidents at multiple levels.

### **Traditional Bullying**

The prevalence of bullying in American schools has been estimated in multiple studies, but one of the largest, nationally representative studies indicated that 17% of

students sampled reported being bullied “sometimes” or “weekly,” while 19% admitted to bullying other students sometimes or weekly, and 6% reported being the bully-victim (Ericson, 2001). A more recent study found that during the school year, 32.0% of students between the ages of 12 and 18 reported being bullied at school and 21.0% of those students reported that the bullying occurred once or twice per month, while 10.0% experienced bullying once or twice per week (Dinkes, Kemp, & Baum, 2009). Based on these results, it is not possible to determine whether the incidents of bullying are actually increasing or if these differences reflect methodological approaches. However, these findings do suggest that bullying is a large problem for students and that continuing efforts to understand the causes of bullying and to reduce the incidence of bullying are warranted.

Bullying is most commonly viewed as being a series of intentional and repeated actions perpetrated by an individual, or a group of people, towards a person who is perceived to be less powerful, either physically, psychologically, or socially (Olweus, 2003). Furthermore, these actions cause the victim to experience physical or emotional pain. Most often, bullying is done to the victim without provocation and with the intent to cause the victim pain (Olweus, 2003).

There are different forms of bullying, for example, any behavior that is done directly to the victim by the bully such as name-calling, hitting, or insulting another person is considered direct bullying and any type of aggression that is aimed at the victim through a third party, such as spreading rumors about a person or purposefully excluding a person from a group or activity is considered indirect bullying (Dooley, Pyzalski, & Cross, 2009; van der Wal, de Wit, & Hirasing, 2003). Additionally, bullying can be

proactive or reactive in nature. Dooley et al. (2009) described reactive bullying as “emotionally volatile and explosive” whereas proactive bullying is “planned and controlled aggression designed to dominate others or to acquire tangible objects” (p. 185). A dyadic view of bullying is often held wherein the roles of the bully and the victim are clearly delineated; however, in reality the roles of the bully and the victim are often blurred and research indicates there are different characteristics and outcomes associated with being a bully, victim, or a person who engages in bullying others but who is also bullied, known as a bully-victim (Kaltiala-Heino, Rimpela, Rantanen, & Rimpela, 2000; Olweus 1994a). Olweus (1994a) described victims of traditional bullying as typically being more introverted, submissive, sensitive, and quiet when compared to their non-victimized peers.

The negative impact traditional bullying has on students who are victims is well documented within the literature. Being a victim of bullying was positively associated with higher levels of depression, loneliness, increased social anxiety, decreased self-esteem, and lower social competence (Hawker & Boulton, 2000). These results were similar to findings by Nansel et al. (2001), which showed victims of bullying had poorer social and emotional adjustment and had difficulties making friends and maintaining positive relationships with classmates.

Although it might seem that indirect bullying would have fewer negative effects, this does not appear to be the case. One study that examined the impact of direct versus indirect forms of bullying found that students who were bullied indirectly experienced more depression than students who were bullied directly, additionally a significant association was found between girls who experienced direct bullying and severe levels of

depression as well as suicidal ideation (van der Wal et al., 2003). Suicidal ideation and depression were both strongly associated with boys and girls who were indirectly bullied as well (van der Wal et al., 2003). Kaltiala-Heino et al. (2000) found that involvement of bullying at any level was associated with an increase in comorbid mental health problems such as depression, anxiety, eating disorders, psychosomatic symptoms, and substance use, indicating that intervention and prevention efforts need to address these issues for every individual involved in bullying, not only the victims.

Having experienced bullying as a youth could result in negative long-term effects. Olweus (1994b) examined the long-term effects of being a victim of bullying and found that at age 23, former victims of bullying had higher levels of depression and low self-esteem, even if they had not experienced bullying for many years. In a recent longitudinal study, Copeland, Wolke, Angold, and Costello (2013) studied the long-term impact of bullying on children between the ages of 9 and 16 in order to examine the long-term impact of bullying involvement. Participants were grouped into three cohorts when they enrolled in the study, based on their age at enrollment. Each participant was tested annually until they turned 16 and then was tested when they turned 19, 21, and 24 to 26, with complete data available on 1,273 individuals. Twenty-six percent of the children and adolescents reported being bullied at least once and 8.9% reported being bullied more than once. Students who bullied others were found to be significantly more likely to be the victim of bullying. After controlling for family hardships (e.g., low socioeconomic status, family dysfunction, maltreatment, and unstable family structure), adults who were the victims of bullying were significantly more likely to have anxiety disorders,

generalized anxiety disorder, panic disorder, and agoraphobia than adults who were not the victims of bullying (Copeland et al., 2013).

### **Traditional Bullying and the Sexual and Gender Minority Population**

If the outcomes for students who are involved in bullying are not disheartening enough, SGM students are an especially vulnerable to the effects of bullying in the context of also attempting to develop a positive self-identity as SGM. An estimated 2 million children in the United States are currently struggling with issues related to their sexual orientation, and 1.6 million of these students will be bullied because of their actual or their perceived sexual orientation (Rivers, Duncan, & Besag, 2007). The 2011 School Climate Survey conducted by the Gay, Lesbian and Straight Education Network (GLSEN) found that 81.9% of the 8,584 LGBT students surveyed reported being verbally harassed, 38.3% reported being physically harassed, and 18.3% reported being the victims of physical assault at school within the past year because of their actual or perceived sexual orientation (Kosciw et al., 2012).

These findings further highlight the longevity of this issue as 20 years ago, Hunter and Schaecher's (1995) observed that "lesbian and gay youth have, for many years, been participants in an educational system which has done little to tackle the violence, harassment and social exclusion they have experienced as a result of their sexual orientation" (p. 1058). Indeed, 56.9% of LGBT students reported hearing homophobic statements from their teachers and members of their school staff and 36.7% of LGBT students who reported experiencing victimization at school said the teachers or staff did nothing to respond (Kosciw et al., 2012).

Lesbian, gay, bisexual, and transgender adolescents who are bullied are more likely to report higher levels of substance abuse, suicidality, and high-risk sexual behaviors than their heterosexual counterparts (Bontempo & D'Augelli, 2002). Varjas et al. (2008) reported on studies that found LGBT students who are bullied are at a higher risk for being involved in prostitution and becoming homeless. Sexual minority youth are also more likely to report experiencing higher levels of depression and hopelessness than their heterosexual peers (Safren & Heimberg, 1999). For example, Kosciw et al. (2012) found that 56.8% of LGBT students who were victimized less frequently at school reported having a higher sense of self-esteem compared to 39.1% of LGBT students who reported being frequent victims of harassment. Additionally, experiencing high levels of victimization was associated with higher levels of depression, with 71.1% of LGBT students who were victims of frequent victimization reporting experiencing high levels of depression, compared to 37.7% of LGBT students who were victims of less frequent victimization reporting experiencing high levels of depression (Kosciw et al., 2012).

Due to the high level of bullying and victimization that occurs at school, LGBT adolescents are significantly more likely than their heterosexual peers to report skipping school because they report being afraid (Garofalo et al., 1998; Robinson & Espelage, 2011). Lesbian, gay, bisexual, and transgender students who missed school were also more likely to report that they had engaged in self-harming behaviors or had attempted suicide in the past (Rivers, 2000). Furthermore, when LGBT students missed school they were missing valuable academic engaged time and many LGBT students who were victimized due to their sexual orientation were significantly less likely to remain in school after they turned 16 (Rivers, 2000). More specifically, 37.6% of people sampled

who identified as being bisexual did not finish high school compared to 13.2% of gay or lesbian participants, while 46.6% of the people who were bisexual reported having at least a college degree compared to only 37.3% of gay or lesbian participants (Gates, 2010).

### **Cyberbullying**

Bullying has traditionally been thought of in terms of physical, verbal, and relational categories. However, with the recent advent of new forms of technology and modes of communication, such as the Internet and cell phones, the development of cyberbullying, which is an extension of traditional bullying, has occurred. In fact, Hinduja and Patchin (2008) argued that “bullies may just be adapting to technological change and employing a different medium to harass and mistreat” (p. 149).

#### **Definition and Types of Cyberbullying**

Due to the novelty of the cyberbullying phenomenon, a definition that is widely accepted has yet to have been agreed upon within the literature. Belsey (2008) defined cyberbullying as “the use of information and communication technologies to support deliberate, repeated, and hostile behaviour by an individual or group, that is intended to harm others” (p.1, para. 1). Another definition of cyberbullying described it as, “An aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself” (Smith et al., 2008, p. 376). Each of these definitions is similar to the traditional bullying definition proposed by Olweus (2003) in that they both stated that cyberbullying was intentional, repeated, and was carried out against victims who could not easily defend themselves suggesting an imbalance of power. Students who were cyberbullies or

who were bullied through electronic means typically spent a large amount of time online at least four or more days a week; additionally they often reported a lack of parental monitoring of their online activity, and they believed the Internet was very important (Twyman, Saylor, Taylor, & Comeaux, 2010).

Willard (2007) has further delineated six different types of cyberbullying. The first type of cyberbullying is *flaming*, which was when someone uses vulgar, angry language to personally insult another person. *Denigration* occurs when information about a person that is untrue or that is based on rumors or gossip is disseminated through various modes of technology in order to damage the victim's reputation. *Impersonation* or *masquerading* is another type of cyberbullying, which happens when a person pretends to be another person online and proceeds to post or send material that will damage the true individual's reputation. The next type of cyberbullying is *outing* that occurs when an individual sends or posts another person's secrets or information that may be damaging or embarrassing. Similar to outing is *trickery*, which is when a person befriends another person online in order to get them to share personal or private information about themselves, which is then distributed online against that person's wishes. The last type of cyberbullying that can occur is *social exclusion*, which is similar to relational bullying, where a person is purposefully excluded from an online group or is deliberately not added to other peers' social networking pages in order to hurt the person (Willard, 2007). Researchers have further examined the perceived damage caused by cyberbullying via the various forms of media (e.g., cell phones, text messages, emails, sharing pictures or video clips, etc.) and found that adolescents view cyberbullying that includes pictures or

video clips as having a significantly more negative impact than other forms of cyberbullying (Slonje & Smith, 2008; Smith et al., 2008)

### **Relationship Between Cyber- and Traditional Bullying**

As might be expected, there is an overlap between individuals who engage in cyberbullying and traditional bullying. Ybarra and Mitchell (2004) sampled 1,501 adolescents between the ages of 10 and 17 and found that a significant number of adolescents who were both cyberbullies and cyberbullying victims were victims of traditional bullying compared to those who were not involved in cyberbullying. Additionally, significantly more cyberbullies were also involved in traditional bullying as the victim than those adolescents who were not involved in cyberbullying (Ybarra & Mitchell, 2004). Similarly, Hinduja and Patchin (2008) found that adolescents who reported being traditional bullies were 2.5 times more likely to report being a cyberbully and victims of traditional bullying were 2.5 times more likely to report being a victim of cyberbullying than students who reported having no involvement in traditional bullying. In a more recent study, Hinduja and Patchin (2012) found that about 75.0% of students who admitted bullying others face-to-face admitted cyberbullying others as well. As a result of this overlap between involvement in traditional bullying and involvement in cyberbullying, it can be hypothesized that since such a large number of SGM youth are the targets of traditional bullying, they are likely also the victims of cyberbullying.

### **Differences Between Cyber- and Traditional Bullying**

Although there is overlap between cyberbullying and traditional bullying, there are also important differences to note. These differences are best understood by viewing

each of them as components of the phenomenon known as the “online disinhibition effect” (Suler, 2004). The online disinhibition effect is seen when people behave in ways or say things that are different from how they normally act when they interact with another person face to face. For example, someone who is normally very reserved and soft-spoken in-person may be very outspoken and assertive in her or his online interactions with others. Cyberbullies may be more disinhibited when using electronic forms of communication and may say things that they would not say directly to the victim, or they may say mean things more frequently due to the ease of sharing messages. This disinhibition allows technology users to separate their online actions from their face-to-face interactions with others, allows them to remain “invisible,” which prevents them from viewing others’ reactions to their comments, and may cause them to view the internet as a place where the rules in real-life do not apply. Patchin and Hinduja (2006) also noted that the anonymity afforded by technology is one of the primary distinguishing factors between cyberbullying and traditional bullying and stated there is a chance that a victim may never be able to determine who is engaging in the bullying behavior and may be forced to go to school in fear everyday as result of this lack of knowledge.

One of the biggest differences between cyberbullying and traditional bullying is that the potential number of bystanders is much greater in cyberbullying than it is in traditional bullying. This may be particularly humiliating for adolescents, because hundreds, or potentially thousands, of people may see their victimization and embarrassment compared to traditional bullying where only one or two bystanders may be present to witness the bullying. Furthermore, the bullying may continue to be witnessed by even more bystanders if the picture or comment is forwarded and shared

with friends of the bystanders or those in their social media networks, causing the pain from the original cyberbullying instance to occur all over again for the victim. Another primary difference between cyberbullying and traditional bullying is that there is sometimes a technology gap between children and their parents, and as a result, parents may have little knowledge about how to monitor online activities, thereby increasing the likelihood that their child may become involved in undesirable online activities. Another difference between the two forms of bullying is the pervasive nature of cyberbullying because many students who are cyberbullied (or who are cyberbullies) have constant access to their cell phones and computers (Patchin & Hinduja, 2006).

### **Prevalence of Cyberbullying**

The importance and prominence of technology, such as the Internet and cell phones, in the lives of young adults cannot be understated. A 2010 Pew Internet survey of 800 adolescents between the ages of 12 and 17 revealed that 93.0% of teens reported using the Internet, with 63.0% of teens saying they go online everyday (Lenhart, Purcell, Smith, & Zickuhr, 2010). Seventy-three percent of teens who accessed the Internet used it to access social networking sites, such as Facebook and Myspace. Furthermore, 69.0% of adolescents own a computer and 75.0% own a cell phone, with 66% reporting that they send and receive text messages on their phones (Lenhart et al., 2010). Adolescents' lives are often intertwined with the technology they use and although this increased use of technology has made their lives easier and has helped them to stay connected to school, work, and socially, it also places them at an increased risk for becoming victims of cyberbullying. Indeed, Hinduja and Patchin (2008) found a significant relationship between cyberbullying victimization and perpetration and time spent online and Ybarra

and Mitchell (2004) found that adolescents who used the Internet for three or more hours per day were 2.5 times more likely to be a cyberbully/cybervictim than they were to be a perpetrator only.

The prevalence of cyberbullying is difficult to determine because of differing definitions and the dynamic nature of cyberbullying itself. One recent study reviewed multiple cross-sectional studies from around the world and found that on average, 24.0% of individuals sampled in the various studies reported being victims of cyberbullying and 16% reported being cyberbullies (Suzuki et al., 2012). There also appeared to be important differences in cyberbullying victimization and age (Tokunaga, 2010). Cyberbullying research tends to include samples with large age ranges so it is difficult to establish difference rates of prevalence and youth progressed to adulthood. In studies using smaller age ranges, it appears that a curvilinear relationship may exist (Tokunaga, 2010). For example, Williams and Guerra (2007) studied 5th, 8th, and 11th graders and found that cyberbullying victimization was most frequent in 8th grade, with 12.9% of students reporting cyberbullying victimization, and then decreased to 9.9% of 11th graders reporting cyberbullying victimization. However, other studies have found no relationship between age and cyberbullying victimization (e.g., Beran & Li, 2007; Didden et al., 2009; Juvonen & Gross, 2008; Katzer, Fetchenhauer, & Belschak, 2009; Patchin & Hinduja, 2006; Smith et al., 2008; Wolak, Mitchell, & Finkelhor, 2007; Ybarra, Diener-West, & Leaf, 2007).

Similarly, little consensus has been reached regarding the relationship between gender and cyberbullying victimization and perpetration (Tokunaga, 2010). The majority of studies on the topic have revealed no significant relationship between gender and

cyberbullying victimization (e.g., Beran & Li, 2007; Didden et al., 2009; Hinduja & Patchin, 2008; Juvoven & Gross, 2008; Katzer et al., 2009; Li, 2006, 2007; Patchin & Hinduja, 2006; Topcu, Erdur-Baker, & Capa-Aydin, 2008; Williams & Guerra, 2007; Wolak et al., 2007; Ybarra, 2004; Ybarra et al., 2007).

### **Consequences of Cyberbullying**

The impact of cyberbullying appears to be similar for students who have experienced traditional bullying, although the literature base for this topic is not as large. Victims of cyberbullying experience feelings of sadness, anger, embarrassment, frustration, powerlessness, and fear, which can lead to delinquency or decreased school attendance and performance if students are fearful of attending school (Hinduja & Patchin, 2007; Hoff & Mitchell, 2009; Patchin & Hinduja, 2006). For example 24.3% of students who reported being the victims of cyberbullying reported they skipped school and 29.7% reported that they cheated on an exam and 31.9% reported that being the victim of cyberbullying affected them at school (Hinduja & Patchin, 2007; Patchin & Hinduja, 2006). Additionally, adolescents who are victims of cyberbullying were significantly more likely to report having school problems (e.g., skipping school, cheating on a test, or being sent home from school) within the past six months and were also significantly more likely to report using alcohol or marijuana (Hinduja & Patchin, 2008). Adolescents who reported cyberbullying others were significantly more likely to report having problems in these areas as well (Hinduja & Patchin, 2008).

Students who were victims of cyberbullying reported feeling a variety of negatives emotions (e.g., sad, embarrassed, fearful, etc.) and had lower self-esteem, self-confidence, and poorer relationships with friends, as well as a decrease in grades (Patchin

& Hinduja, 2010; Price & Dalgleish, 2010). These findings are consistent with studies of adolescents from across the United States, which have found that frequent victims (i.e., those students who reported being victimized more than two or three times per month) of cyberbullying were significantly more likely to be depressed than adolescents who were occasionally cyberbullied (Wang, Nansel, & Iannotti, 2011; Ybarra, 2004).

Cyberbullying is not unique to the United States; studies of adolescents from Switzerland and Australia (Perren, Dooley, Shaw, & Cross, 2010), Turkey (Sahin, 2012), Israel (Olenik-Shemesh, Heiman, & Eden, 2012), Canada and various others (Williams, Cheung, & Choi, 2000) have found that high rates of cybervictimization are associated with negative outcomes, such as depression, loneliness, less self-control, conduct problems, difficulties with peers, and a lower sense of belongingness. Sahin (2012) hypothesized that adolescents who are already lonely may be accessing the Internet and using other forms of technology more frequently in order to create a sense of belongingness and community, which also creates the potential for them to be victims of cyberbullying more often, which may in turn increase their sense of loneliness.

The relationship between bullying and suicidal ideation is similar in cyberbullying. Students who were victims of cyberbullying were 1.9 times more likely to attempt suicide and cyberbullies were 1.5 times more likely to attempt suicide, however, victimization in either type of bullying was a stronger predictor of suicidal ideation than bullying other students (Hinduja & Patchin, 2010).

### **Cyberbullying and the Sexual and Gender Minority Population**

Kosciw et al. (2012) found that 55.2% of LGBT students were the victims of cyberbullying in their national sample of 8,584 students between the ages of 13 and 20.

This percentage is much higher than other studies examining cyberbullying victimization of SGM youth, which may be due in part to the questions used to identify victimization and the definition used. There was only one question asking about cyberbullying victimization in the study conducted by Kosciw et al. (2012). Robinson and Espelage (2011) sampled 13,213 students from 30 different middle and high schools in the United States and found that adolescents who identified as being LGBTQ (lesbian, gay, bisexual, transgender, questioning) were significantly more likely to report being cyberbullied than their heterosexual peers. For example, 34.0% of the LGBTQ students reported being cyberbullied compared to 19.2% of the heterosexual students (Robinson & Espelage, 2011). Similarly, Schneider et al., (2012) sampled 20,406 students in grades nine through twelve from Massachusetts and found that LGBT youth were more likely than their heterosexual peers to report being cyberbullied, with 33.1% of LGBT students experiencing cyberbullying compared to 14.5% of heterosexual youth. Overall, 22.7% of LGBT youth reported being the victim of both traditional bullying and cyberbullying, compared to 9.0% of heterosexual students, highlighting the need for interventions that address both forms of bullying within the schools, with an emphasis on addressing the needs of LGBT students (Schneider et al., 2012). Furthermore, while the authors did not specifically examine the relationship between LGBT students who were the victims of cyberbullying and self-reported symptoms of depression, they did find that LGBT adolescents, regardless of victimization status, were significantly more likely than heterosexual adolescents to report experiencing symptoms of depression, as measured by single items on the survey (Schneider et al., 2012).

To date, very few studies have examined the relationship between cyberbullying and outcomes for SGM students (Blumenfeld & Cooper, 2010; Cooper & Blumenfeld, 2012; Schneider et al., 2012). Part of the concern for SGM students is that seeking help about their bullying experiences may also result in disclosing their sexual orientation. For example, Blumenfeld and Cooper (2010) sampled 444 students, 350 of whom were LGBT, between the ages of 11 and 22. Only 18.0% of LGBT students, as compared to 37.0% of heterosexual students, would tell their parent if they were being cyberbullied. Lesbian, gay, bisexual, and transgender students explained that they would not tell their parents because they did not believe their parents would be able to improve the situation, they feared that their technology would be taken away from them, and they were afraid of revealing their sexual orientation to their parents because they believed their parents would respond negatively to discovering their sexual orientation (Blumenfeld & Cooper, 2010; Bontempo & D'Augelli, 2002). This is a legitimate fear, as students who reveal their sexual orientation to their parents are at a high risk of being rejected and “kicked out” of their home (Blumenfeld & Cooper, 2010).

More recently, Cooper and Blumenfeld (2012) examined the frequency of cyberbullying incidents among LGBT students and the impact of this cyberbullying. They sampled 310 students, 250 of whom identified as LGBT, between the ages of 11 and 18. The findings of this study revealed that 60.0% of LGBT students, compared to 8.0% of their allied peers had been harassed because of their sexual identity within the past 30 days, while 41.0% of LGBT students and 17.0% of their allied peers reported being harassed because of their gender identity in the past month. When asked specifically about cyberbullying, 31.2% of LGBT participants were the recipients of rude,

vulgar, or angry messages, 16.1% were sent threatening messages, 14.9% were excluded purposefully from a group, and 24.0% received harmful messages from an anonymous person one to two times per week within the past month (Cooper & Blumenfeld, 2012). A smaller percentage of LGBT students reported being victims of cyberbullying often (three to five times per week) or frequently (six or more times per week), with 4.8% of LGBT youth reporting being cyberbullied often by receiving angry, vulgar, or rude messages, 5.2% reported being excluded from a group, 3.6% said they received threatening messages, and 2.4% received hurtful messages from someone they could not identify.

Students who were the victims of cyberbullying were asked to identify how they felt after the incident occurred. Among the LGBT participants, 56.0% reported feeling depressed, 51.0% felt embarrassed, 36.0% felt anxious about going to school, and 35.0% experienced suicidal thoughts (Cooper & Blumenfeld, 2012). In addition to experiencing negative emotional reactions, 43.0% of LGBT students who were victims of cyberbullying experienced poor body image, 28.0% isolated themselves from their friends, 27.0% isolated themselves from their family, and 14.0% attempted suicide as a result of the cyberbullying victimization (Cooper & Blumenfeld, 2012). This study also highlighted how few LGBT students are willing to report cyberbullying victimization to their teachers and parents. Only 19.0% of LGBT students said they would tell an adult at their school, and only 16.0% would tell their parents, about being cyberbullied because they did not believe the school (or their parents) would be able to stop the bullying and they were worried they would lose access to their computers or phones (Cooper & Blumenfeld, 2012).

There was consistent evidence to suggest that SGM adolescents were at an increased risk for experiencing cyberbullying as well as experiencing internalizing disorders such as depression and anxiety in response to that cyberbullying. More seriously, SGM youth are at an increased risk for attempting suicide and experiencing suicidal ideation (e.g., D'Augelli, 2002; Garofalo et al., 1999; Meyer, 2003). The majority of the studies examining SGM students' experiences with cyberbullying and the emotional impact of cyberbullying have tended to use single item responses rather than more comprehensive measures of depression and anxiety. It is also important to know whether individuals have disclosed their sexual orientation and how this factor relates to the experience of cyberbullying. The purpose of this study was to further examine the experiences of anxiety and depression experienced by SGM youth who have been cyberbullied.

### **Summary**

Sexual and gender minority adolescents are at an increased risk for negative outcomes in their academic, emotional, and social lives. In addition to these serious issues, SGM youth are also at an increased risk of being victimized both physically and verbally in and out of school. Recently, with the development of new technology, cyberbullying has become another popular form of victimization, but little research has been conducted to examine SGM adolescents' emotional responses to cybervictimization. Researchers (e.g., Campbell, 2005; Patchin & Hinduja, 2006; Suler, 2004) hypothesize that because cyberbullying is more pervasive and cyberbullies are more disinhibited, the severity of the outcomes students experience when they are involved in cyberbullying may be increased. Understanding the negative outcomes associated with cyberbullying

for SGM students is vital. Sexual and gender minority youth who are out to their family and friends may receive more support from these people because they no longer have to fear outing themselves if they wish to tell someone about their cyberbullying victimization and they may experience less depression and anxiety as a result of this support.

## **CHAPTER III**

### **METHODOLOGY**

#### **Sample and Participant Selection**

A non-experimental research design was used in this study. More specifically, an ex-post facto causal-comparative design (Gall, Gall, & Borg, 2006), utilizing questionnaires was used in order to examine relationships and differences between groups who had experienced cyberbullying. The target population for the present study was adolescents who were members of the SGM population and heterosexual adolescents who both report being the victims of cyberbullying. The sampling frame for this study consisted of high school students attending high school throughout the state and high school students who were members of, or who received services provided by, SGM community groups and organizations throughout Colorado. All SGM and heterosexual high school students between the ages of 15 and 18 (or grades 9 through 12), who were currently enrolled in high school, and who reported being cyberbullied in the past 2 to 3 months were eligible to participate in the study, and no additional exclusionary criteria were used.

Convenience sampling was used to obtain: (a) SGM participants from community organizations which serve the SGM population and (b) a comparison group of heterosexual participants from high schools. In order to obtain a sample of heterosexual students, Institutional Review Board applications for school districts within the same region as participating SGM organizations were completed, or if no Institutional Review

Board procedures existed, principals at high schools in these regions were contacted individually via email using a recruitment letter (Appendix A). If administrators agreed to allow their high schools to participate, they were contacted directly in order to schedule assessment dates. Principals from two high schools agreed to participate in the study and all homeroom classes of ninth and tenth graders at each school were invited to participate. Data collection occurred over 1 week in the spring of 2014.

Sampling via community organizations for the SGM population was also used, because more SGM students could be contacted this way than would be expected from sampling students from individual high schools alone. This sampling method was used to ensure that an adequate number of sexual minority youth participants were obtained. Sexual and gender minority organizations throughout the state with programming for youth were contacted via email with a recruitment letter (Appendix B). Three SGM organizations agreed to participate. However, more SGM students were needed than could be found from the convenience sample of community organizations, so additional techniques were implemented.

Initially, snowball-sampling techniques were used and an incentive was added. The researcher contacted the SGM organizations again and asked for references to other groups of SGM adolescents or individual SGM adolescents who were willing to participate in the study. Universities throughout the state with SGM associations were contacted in hopes of obtaining recent high school graduates who were still 18 and who would have experienced cyberbullying victimization in their last months of high school, as well as Parents, Families, and Friends of Lesbians and Gays (PFLAG) groups. These organizations were provided with a recruitment flyer and were asked to share it over their

listervs, in newsletters, on their social media pages, and in their offices. Additionally, the researcher rented a booth space during the annual Pride Festival in Denver for two days to recruit participants. Sexual and gender minority participants completed the surveys immediately at the site. Because the Pride Festival was open to the public, regardless of sexual orientation, heterosexual participants were also recruited at the Pride Festival. Data collection at these organizations and the Pride Festival occurred between the winter of 2013 and the summer of 2014.

An a priori power analysis was conducted using G\*power 3.1 to determine the sample size needed to achieve a medium effect size (Faul, Erdfelder, Lang, & Buchner, 2007). Using a medium effect size ( $f^2(V) = .0625$ ) with a power value of .8 and an alpha value of .025, a sample size of 188 participants (94 per group) was required to detect at least a medium effect. Ninety-two SGM participants were obtained from either the SGM organizations or the Pride Festival and one SGM participant was obtained from sampling at the high schools. Forty heterosexual participants were obtained from sampling at the Pride Festival and 73 heterosexual participants were obtained from the high schools. A total of 206 adolescents participated in the study, which met the required sample size.

### **Instrumentation**

In order to collect the data on the dependent variables of interest (e.g., cyberbullying victimization, depression, and anxiety), a cyberbullying questionnaire and two additional brief questionnaires were used to individually assess the participants' present level of depression and anxiety. Additional demographic information was also collected from each participant (Appendix C). Information about the independent variable of interest, sexual orientation, and whether participants had disclosed their

sexual orientation to family and peers was collected through this demographic questionnaire.

### **Demographic Information**

Participants were asked to provide their age, biological sex, year in school, race/ethnicity, and sexual orientation (gay, lesbian, bisexual, transgender, unsure/questioning, heterosexual/straight, and other). These data were used to provide more detailed information about the generalizability of the study results. Participants who answered *unsure/questioning* or *other* to the sexual orientation question were included in the SGM group for analyses. If participants answered the sexual orientation question with a response other than heterosexual, they were asked in a *yes/no* response format if they had disclosed their sexual orientation with members of their family and/or friends.

### **Cyberbullying Victimization**

In order to assess participants' cyberbullying victimization and frequency of this victimization, a 17-item survey was developed by modifying the Cybervictimization Survey (CVS), originally created by Brown (2011). The original CVS asks participants to rate the frequency of involvement in online victimization and contains 15 items. Reliability and validity data from one study of 106 students in grades 6 through 8 indicated that the CVS had strong internal consistency, with a Cronbach's alpha of .924 (Brown, 2011). The convergent validity of the CVS was also evaluated by examining the correlations between it and two other commonly used measures of cyberbullying: the Online Aggression Survey Instrument (Hinduja & Patchin, 2009) and the Cyberbullying Measure (Kowalski & Limber, 2007). Correlations between the CVS and both of the other measures were significant and positive at the  $p < .01$  level (Brown, 2011). The

original version of the CVS was also given to 269 ninth grade students from a school district in the Midwestern United States and a Cronbach's alpha of .97 was found, indicating that the measure has strong internal consistency when used with high school students (Demaray, personal communication, March 18, 2013). The CVS was selected for use in this study because it was one of the only measures for cyberbullying victimization with published validity and reliability data.

Two questions were added to the CVS in order to ask participants if they were bullied because of their perceived or actual sexual orientation. These questions were added in separate locations among the 15 items of the original CVS, but were not included in all analyses of the measure, because SGM participants scored significantly higher on these items than heterosexual participants. The modified CVS begins with a definition of cyberbullying, and contains 17 (the original 15 items plus the 2 added items) items that ask the participant about times they have been cyberbullied. Participants were asked to select the frequency of their involvement in a specific situation in the past two to three months using a 5-point Likert-type scale ranging from 1 = *It hasn't happened at all in the past 2-3 months*, to 3 = *2 or 3 times a month for the past 2-3 months*, to 5 = *Several times a week for the past 2-3 months*. Total scores were calculated by summing participants' responses to each of the items. Possible scores on the CVS ranged from 15 to 75, with higher scores indicating more victimization. The scale had a high level of internal consistency when used in the present study, as demonstrated by a Cronbach's alpha of .90 ( $N = 204$ ).

## Depression

Participants' level of depression was assessed using the Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977). The CES-D is a 20-item self-report measure commonly used to identify symptoms of depression in individuals above age 14. It is used to provide an estimate of the severity of a person's depression symptoms and to measure response to interventions in a variety of settings, such as clinics, hospitals, and community groups (Mulrow et al., 1995). The CES-D was created to measure "current level of depressive symptomatology, with emphasis on the affective component, depressed mood" (Radloff, 1977, p. 385) and takes approximately five to ten minutes to complete (Sharp & Lipsky, 2002). The CES-D also measures a person's "feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance" (Radloff, 1977, p. 386). The 20 items were selected from a pool of items from other validated depression scales (Radloff, 1977). Although these symptoms are a portion of the criteria used to make a clinical diagnosis of a Major Depressive Episode, the symptoms participants reported in the present study were not intended to inform clinical diagnosis.

Participants were asked to answer how often, in the past two to three months, they felt each of the depressive symptoms using a four-point scale: 0 = *Rarely or None of the Time (Less than 1 day)*, 1 = *Some or a Little of the Time*, 2 = *Occasionally or a Moderate Amount of Time*, or 3 = *Most or All of the Time*. Total scores were obtained by summing participants' responses to each of the items. Possible scores on the CES-D range from 0 to 60, with higher scores indicating more frequently occurring symptoms of depression. A score of 16 has been generally used as a cut-off point for clinical depression and is

indicative of a need for further evaluation (Radloff, 1977; Smarr, 2003). Participants' total scores on the CES-D were used in the data analysis procedures.

The CES-D has strong internal consistency reliability when used with adolescents from non-clinical populations, with reported alphas ranging from  $\alpha = .87$  to  $.92$  (Holsen, Kraft, & Vitterso, 2000; Roberts, Andrew, Lewinsohn, & Hops, 1990). The internal consistency reliability of the CES-D when calculated using the sample in the present study was  $\alpha = .94$ , which indicates a high level of internal consistency. Split-half reliabilities for the CES-D were strong and ranged from  $r = .76$  to  $.85$ . Spearman-Brown reliability coefficients were also strong and ranged from  $r = .86$  to  $.92$  in samples of African American and Caucasian men and women above the age of 18 (Comstock & Helsing, 1976; Radloff, 1977). Roberts et al. (1990) reported moderate test-retest reliabilities when assessing students in both public and private schools between the ages of 15 and 18 ( $r = .49$  to  $.64$ ). These lower test-retest reliabilities were expected, given that the CES-D was designed to measure a person's current level of depressive symptoms (Smarr, 2003).

Radloff (1977) found that the CES-D had strong discriminant validity when administered to both a general population and a psychiatric inpatient population, with 70.0% of the participants from the inpatient setting scoring at or above the cut off score of 16, compared to only 21.0% of the general population who scored at or above this point. Moderate convergent validity was also demonstrated by the CES-D, with correlations between it and other self-report measures of depression ranging from  $r = .43$  to  $.61$  (Radloff, 1977). Hicks and McCord (2012) found strong convergent validity between the CES-D and the Beck Depression Inventory, Second Edition ( $r = .89$ ) in a

population of undergraduate students between the ages of 18 and 32, which indicated that the CES-D was a valid and reliable a measure of depression. Divergent validity was demonstrated with the CES-D and measures of cooperation, aggression, and understanding with correlations ranging from  $r = -.21$  to  $.28$  (Radloff, 1977).

### **Anxiety**

Participants' feelings of anxiety following cyberbullying victimization were assessed using the 41-item Screen for Child Anxiety Related Emotional Disorders (SCARED), which is an anxiety screener designed for adolescents both in clinic and community settings (Birmaher et al., 1999). Each of the items on the SCARED contributes to one of five subscales, four of which are directly based on DSM-IV-TR criteria for the following anxiety disorders: Generalized Anxiety Disorder, Panic Disorder, Separation Anxiety, and Social Phobia. The fifth subscale on the SCARED assesses School Anxiety or School Refusal behavior. It should be noted, however, that participants' responses to the items were not meant to be used as a clinical diagnosis of the various disorders. Participants were asked to answer how often they felt each of the anxiety symptoms within the past two to three months, using a three-point scale: *Not True or Hardly Ever True*, *Somewhat True or Sometimes True*, and *Very True or Often True*. Possible scores on the SCARED range from 0 to 81, while a score of 25 was used as a cut off point to indicate more severe anxiety symptoms, as recommended by Birmaher et al. (1999). Although subscale scores were available, only total scores on the SCARED were used in the data analysis procedures.

The SCARED has been researched to establish its internal consistency reliability, convergent validity, discriminant validity, and test-retest reliability in several populations

from different countries including urban American high school students (Boyd, Ginsburg, Lambert, Cooley, & Campbell, 2003), Belgian secondary school students (Muris, Merckelbach, Ollendick, King, & Bogie, 2002), Italian children between the ages of 8 and 17 (Ogliari et al., 2006), South African adolescents (Muris et al., 2006), Chinese adolescents (Linyan, Kai, Fang, Yi, & Xueping, 2008), and Brazilian adolescents (DeSousa, Salum, Isolan, & Manfro, 2012). Cronbach's alphas of the SCARED total score range from .89 to .91 (Birmaher et al., 1999; Boyd et al., 2003; Linyan et al., 2008; Muris et al., 2002; Muris et al., 2006). Cronbach's alphas of the SCARED subscales range from .54 to .89 (Boyd et al., 2003; Linyan et al., 2008; Muris et al., 2002; Muris et al., 2006; Ogliari et al., 2006). In the present study, the Cronbach's alpha was .96, which indicates a high level of internal consistency reliability.

Additionally, Muris et al. (2002) found evidence of convergent validity with significant positive correlations between the total score of the SCARED and the total score of the Multidimensional Anxiety Scale for Children (MASC), with  $r = .81$  and the total score of the Spence Children's Anxiety Scale ( $r = .84$ ). This was consistent with the significant positive correlations Boyd et al. (2003) found between the MASC and the SCARED ( $r = .61, p < .001$ ) as well as between the Revised Children's Manifest Anxiety Scale (RCMAS) and the SCARED ( $r = .65, p < .001$ ) in a population of African American students between the ages of 12 and 19, which indicated that the SCARED appears to measure anxiety. Furthermore, Muris et al. (2002) found significant positive correlations between the total score on the SCARED and the RCMAS ( $r = .85$ ) and the STAIC and the SCARED ( $r = .87$ ) in a population of Belgian students between the ages of 12 and 18.

Discriminant validity of the SCARED has been examined in several studies (Birmaher et al., 1999; DeSousa et al., 2012; Linyan et al., 2008), with results indicating that it has strong discriminant validity, as it was able to significantly differentiate between adolescents with and without anxiety disorders using both the total score and subscale scores, as well as being able to differentiate students with anxiety disorders from depressive disorders. Additionally, when examining specific anxiety disorders, the SCARED was found to significantly differentiate adolescents who had the specific disorders from those who did not, using either the total score and the subscale scores, with the exception of the Separation Anxiety subscale, which was only able to significantly differentiate these groups using the score from that subscale (Birmaher et al., 1999; DeSousa et al., 2012).

Test-retest reliability of the SCARED has been found to be acceptable on all of the subscales, with the exception of the Social Phobia subscale, with Pearson correlation coefficients ranging from  $r = .51$  to  $.82$  on the subscales after a two-week time interval and a correlation coefficient of  $r = .61$  for the total score when administered to students in China between the ages of five and 16 (Linyan et al., 2008). When participants were tested again after a 12-week time interval had passed, Pearson correlation coefficients were  $r = .57$  for the total score and ranged from  $r = .29$  to  $.69$  on the individual subscales (Linyan et al., 2008).

Factor analyses conducted in several studies demonstrated that the SCARED had a stable five-factor solution (Birmaher et al., 1999; Linyan et al., 2008). Overall, these studies supported the use of the SCARED in different cultures, its high internal consistency, the stable subscale structure, the convergent and divergent validity of the

instrument, and the discriminant validity of the SCARED, indicating that it was an appropriate measure to use to assess participants' level of anxiety.

### **Procedures**

A list of organizations throughout the State of Colorado that served the SGM population was generated by conducting an Internet search. This search yielded 12 organizations that served the SGM population and had programs specifically dedicated to SGM youth throughout the state of Colorado. In addition to contacting organizations serving the SGM population, a list of all high schools throughout the state of Colorado was obtained through the Colorado Department of Education's website. This search revealed a list of 464 high schools throughout the state. Prior to contacting any of these organizations or schools, Institutional Review Board approval for this study was obtained through the University of Northern Colorado (Appendix D). Three SGM organizations agreed to participate in the study. The district Institutional Review Board requirements for four of the high schools in the areas surrounding the SGM community organizations were reviewed and were completed.

No formal review process was required to participate at the Pride Festival. One school district agreed to participate in the study and allowed the researcher to survey all ninth and tenth grade students at two high schools within the district. Only one SGM adolescent self-identified at either of the high schools and that student's responses were included in the SGM analyses. Forty heterosexual students were sampled at the Pride Festival and their responses were included in the heterosexual analyses, after determining there were no significant differences between the two groups on the dependent variables of interest.

Although all participants in the study were minors, no parental signatures were obtained from any of the participants recruited from the SGM organizations or the Pride Festival due to the inherent risk associated with participants potentially inadvertently revealing their sexual orientation status to their parents. This consent procedure is typical with SGM populations in order to protect the participants (e.g., DuRant, Krowchuk, & Sinal, 1998; Murdock & Bolch, 2005). Participants at the Pride Festival were screened initially by asking for their age only, so there was no way to determine if the participant was SGM or heterosexual. Therefore, heterosexual youth who were recruited at the Pride Festival were also not required to obtain parental consent. This procedure was also used in order to protect the allied youth from the risk associated with their parents discovering they attended a festival for the SGM population. Participants, therefore, gave their consent to participate by signing the assent form (Appendix E) and completing the questionnaires. Parental consent was required for youth who participated from either of the high schools, per the school district's research procedures (Appendix F).

The researcher attended a regular meeting at each of the three SGM organizations and administered the surveys on site. In order to obtain a sample at the high schools, the researcher visited all of the homeroom classes for ninth and tenth graders to briefly introduce the study and provide the students with a copy of the parental consent form. During these initial visits, each of the group leaders and classroom teachers were provided with a definition of confidentiality. Students at the high schools were told to return the signed consent forms at the end of the week and the teachers in each class were provided with an envelope to collect the signed forms. Students who did not return a signed parental consent form were not allowed to participate. The researcher returned the

following week to each of the classes to administer the surveys to the participants who obtained parental consent.

In introducing the study, participants were told that the questionnaires took approximately 15 minutes to complete. Participants were reminded that their participation was completely voluntary and that they were free to stop participating at any point during the administration of the questionnaires. Then, all interested participants read an assent form with more detailed information about the purpose of the study, risks involved, and potential benefits of participating. The researcher summarized this information verbally to all participants and answered any questions they had prior to distributing the questionnaires. Assent forms and questionnaires were kept separated from one another in order to protect the participants' anonymity.

Adolescents who wished to participate and who signed the assent form were given the questionnaires and an envelope in which they placed the completed questionnaires prior to returning them to the researcher. Each of the questionnaires and the envelopes were coded prior to being given to the participants, based on whether they came from an SGM organization, a high school, or the Pride Festival. The participants were asked to complete the questionnaires immediately with the researcher and/or the adult leader from the organization or classroom teacher present. Adolescents who did not wish to participate in the study were able to participate in an alternative activity during that time. Most participants who did not participate read silently, worked on class assignments or homework, or participated in other activities available within the organization. The researcher collected the sealed envelopes containing the questionnaires when the participants completed them.

Due to the increasing awareness of the problem of cyberbullying and some high profile suicides of SGM students as a result of bullying, it was hoped that participants would be motivated to respond to the survey in order to aid in the process of finding solutions to these problems. This information was explained in the consent form students read and in the brief introduction of the study provided to the participants by the researcher. However, due to difficulty recruiting a sufficient number of SGM participants, an incentive was added. Sexual and gender minority participants were allowed to provide their name and email address in order for a chance to win a \$25 gift card to Amazon.com.

In order to address any potential negative reactions of adolescents participating in the study, each participant (heterosexual and SGM) was given a list of general mental health resources in the community available to them regardless of their sexual orientation, such as counseling centers located in their neighborhood or programming available for people their age (Appendix G). These mental health resources were general in nature in order to protect SGM students who may have brought this information home with them from their SGM group meeting. Participants were also directed to a mental health professional or other adult within the organization or high school with whom they could talk at any point during or after completing the questionnaires (e.g., the school psychologist, counselor, social worker) if they felt they needed to discuss any emotions that may have arisen as a result of being asked questions about these topics.

As participants completed the questionnaire, the researcher and/or group leader, classroom teacher, or research assistants (two doctoral candidates in a school psychology program) visually monitored the participants in order to identify any students who

seemed to be experiencing any negative emotional reactions or exhibiting any signs of distress as a result of completing the questionnaires (e.g., students who seemed agitated or who began to cry). No students demonstrated signs of distress throughout the administration of the surveys.

Attempts were made to contact as many different SGM community organizations as possible in order to access a variety of SGM adolescents from around the state. However, the potential for excluding some groups of adolescents, such as those who did not participate in activities hosted by an organization or who did not feel comfortable sharing their sexual orientation status with others in order to access resources at these organizations, or adolescents who do not live in an area with an SGM organization nearby, is high. Additionally, a selection bias may be present due to the fact that SGM adolescents who received services at an SGM organization or who attended the Pride Festival may have been more likely to disclose their sexual orientation status with others, than those SGM adolescents who do not receive services from these organizations or attend these types of events.

In an attempt to reduce the impact of the threat of non-response bias, the researcher discussed the positive effects this research could have for adolescents who are members of the SGM population and who are involved in cyberbullying when introducing the study to the various groups of participants. In order to mitigate the threat of participants wishing to present themselves in a more or less favorable manner than they truly were on the various questionnaires, the consent form explained that responses would be kept anonymous and every effort was made to maintain the anonymity of their responses.

### **Data Analysis**

The data were analyzed through five different procedures: descriptive analysis, checking for assumption violations, reliability analysis, a Welch's *t*-test, and multivariate analysis of variance (MANOVA). A more conservative alpha of .01 was used in the Welch *t*-test due to the potential violation of the independence of observations assumption. Because two MANOVA analyses were conducted to answer the second research question, a Bonferroni adjusted alpha level of .025 was used for that MANOVA analysis. This adjustment was made in order to decrease the odds of committing a Type I error. The alpha level for the MANOVA conducted to answer the third research question was set at .05. Significant results were followed by a discriminant analysis in order to further examine the relationship between the dependent variables.

Data collected from the various sites was entered into a data file in SPSS v. 22. Total scores for each of the independent variables of interest were calculated by summing participants' responses on each of the individual instruments (e.g., cyberbullying victimization scale, CES-D and SCARED). If participants answered less than 85.0% of the items on any one survey, their scores on that measure were not used in the final data analysis procedures. Furthermore, if participants left the sexual orientation item unanswered, their answers were not used in the final data analysis procedures.

## **CHAPTER IV**

### **RESULTS**

#### **Sample Demographic Information**

To obtain participants, consent forms were distributed over two consecutive days to 890 students in all freshman and sophomore homeroom classes at two high schools from the same school district in the Southern Colorado. Of those students, 816 (91.7%) did not participate in the study because they had not returned signed consent forms by the testing date. One participant from the high school sample identified as SGM and this participant's results were added to the SGM sample. Three SGM organizations along the Front Range region of Colorado allowed for data collection on site and a booth space was rented for 2 days during a major metropolitan city's annual Pride Festival. A total of 99 assent forms were distributed to adolescents at the SGM organizations and the Pride Festival. Of those adolescents, seven (0.07%) did not participate in the study because they were outside of the required age range or because their response forms were not valid (e.g., insufficient number of answered items).

As noted, 40 heterosexual participants completed surveys at the Pride Festival. To determine whether their responses were similar to the "heterosexual" high school sample, scores on the SCARED and CES-D measures were compared using a one-way MANOVA. Preliminary assumption checking revealed that the data were not normally distributed, as assessed by Shapiro-Wilk's test ( $p < .05$ ); there were no univariate or multivariate outliers, as assessed by visual inspection of boxplots and Mahalanobis

distance ( $p > .001$ ), respectively. There were linear relationships, as assessed by visual inspection of scatterplots and no multicollinearity as assessed by Pearson correlation ( $r = .798, p < .001$ ). There was homogeneity of variance-covariance matrices, as assessed by Box's M test ( $p = .474$ ). Heterosexual participants from the Pride Festival had higher scores on the SCARED and CES-D ( $31.48 \pm 17.5$  and  $24.6 \pm 13.21$ , respectively) than the heterosexual participants from the high schools on the SCARED and CES-D ( $23.96 \pm 16.61$  and  $18.58 \pm 14.8$ , respectively). However, the differences between the heterosexual participants on the combined dependent variables was not statistically significant,  $F(2, 110) = 2.700, p = .072$ ; Wilks'  $\Lambda = .953$ ; partial  $\eta^2 = .047$ . Therefore, the heterosexual participants from the Pride Festival were included in the heterosexual group and were included in all subsequent analyses, resulting in a total of 113 adolescents who identified as heterosexual and 93 adolescents who identified as SGM.

Overall, 206 participants completed the surveys. The following descriptive statistics for the sample are presented in Table 1. One hundred and forty-one (68.4%) females and 63 (30.6%) males participated in the survey. Nearly 30.0% of the sample was from diverse backgrounds. Of the 93 SGM participants, 21 (10.2%) identified as gay, 13 (6.3%) identified as lesbian, 30 (14.6%) identified as bisexual, seven (3.4%) identified as transgender, two (1.0%) identified as questioning, 15 (7.3%) identified as other (e.g., pansexual, genderqueer, etc.), and five (2.4%) selected multiple labels.

Table 1

*Participant Demographic Information in Percentages*

	Sexual and Gender Minority ( <i>n</i> = 93)	Heterosexual ( <i>n</i> = 113)	Total ( <i>n</i> = 206)
Age			
15	29.0	43.4	36.9
16	22.6	34.5	29.1
17	25.8	12.4	18.4
18	16.1	4.4	10.3
Sex			
Male	30.1	31.0	30.6
Female	67.7	69.0	68.4
Grade			
9th	7.5	21.2	15.0
10th	26.9	51.3	40.3
11th	23.7	11.5	17.0
12th	40.9	15.9	27.2
Race			
White	65.6	76.1	71.4
African American	3.2	1.8	2.4
Asian American	3.2	2.7	2.9
Hispanic/Latino	16.1	10.6	13.1
Multiple Races	9.7	8.8	9.2
Other	1.1	0.0	0.5

*Note:* Percentages may not total 100% due to missing data.

Participants who identified as SGM were asked to report if they had disclosed their sexual orientation status to their family and friends. Ninety-one of the 93 SGM participants responded to these questions. Of the SGM participants who answered, 78.0% had disclosed their sexual orientation to their family and 90.1% had disclosed this information to their friends. Only seven participants had not disclosed to either their family or friends (7.7%) and 69 (75.8%) had disclosed to both their family and friends.

Students reported that, on average, they spent between 0 and 17 hours on the Internet each day and the modal number of hours spent on the Internet each day was four (14.6%). This information is presented in Table 2. Students reported that they spent, on average, between 0 and 24 hours on their cell phone each day using services like the Internet and text or picture messaging, with the modal response being one hour per day (9.7%), followed by three hours per day (9.2%). Ten students, or 4.9% of the sample, reported that they spent 24 hours each day on their phones using them for anything but making or receiving calls.

Table 2

*Average Hours Per Day Spent on Internet and Cell Phone*

	Sexual and Gender Minority ( <i>n</i> = 93)		Heterosexual ( <i>n</i> = 113)		Total ( <i>n</i> = 206)	
	M	SD	M	SD	M	SD
Hours spent per day on the Internet	6.23	3.4	3.12	2.32	4.52	3.24
Hours spent per day on cell phone (excluding making/receiving calls)	8.03	6.47	6.52	6.06	7.19	0.5

*Note:* M = mean, SD = standard deviation.

### Statistical Analyses

A Pearson's product-moment correlation was conducted to assess the relationship between CES-D, SCARED, and CVS scores. Results are presented in Table 3. There were strong positive correlations between CES-D and CVS total scores ( $r = .530, p < .001$ ) and between CES-D and SCARED total scores ( $r = .806, p < .001$ ). There was a moderate positive correlation between CVS and SCARED total scores ( $r = .394, p < .001$ ) with frequency of cyberbullying explaining about 15.5% of the variation in anxiety scores ( $r^2 = .155$ ) and 28% of the variation in depression scores ( $r^2 = .281$ ). These correlations indicate that participants with high scores on the CVS had higher scores on the CES-D and SCARED. Further, depression and anxiety were highly correlated. This high correlation is not unexpected, especially when sampling an adolescent population, as researchers have found that 25.0% to 50.0% of youth with depression have comorbid anxiety disorders and 10.0% to 15.0% of youth with anxiety disorders have comorbid depression diagnoses (e.g., Axelson & Birmaher, 2001).

Table 3

*Pearson Correlations for Center for Epidemiologic Studies-Depression Scale (CES-D), Screen for Children Anxiety Related Emotional Disorders (SCARED), and Cybervictimization Survey (CVS) Total Scores*

	Cybervictimization Survey (CVS)	Screen for Child Anxiety Related Emotional Disorders (SCARED)
Center for Epidemiologic Studies- Depression Scale (CES-D)	.530**	.806**
Screen for Children Anxiety Related Emotional Disorders (SCARED)	.394**	

*Note:* \*\*Significant at  $p < .001$  level.

When the entire sample was examined, participants reported experiencing scores that were well above the cut-off points on the CES-D and SCARED (Table 4), which indicated they were experiencing significant levels of depression and anxiety. The cut-off most commonly used in the CES-D is 16 and the cut-off on the SCARED is 25. The mean score on the CES-D was 25.25 ( $SD = 14.87$ ) and the mean score on the SCARED was 32.29 ( $SD = 19.06$ ). Heterosexual participants had a mean score of 20.71 ( $SD = 14.49$ ) on the CES-D and a mean score of 26.62 ( $SD = 17.23$ ) on the SCARED. Sexual and gender minority participants had a mean score of 30.77 ( $SD = 13.46$ ) on the CES-D and 39.18 ( $SD = 18.99$ ) on the SCARED. These scores indicate that youth, regardless of sexual orientation, are experiencing significant amounts of internalizing problems. However, SGM youth report especially high levels of symptoms.

Table 4

*Percentage of Participants Scoring Above Cut-Points*

	Center for Epidemiologic Studies-Depression Scale (CES-D)	Screen for Child Anxiety Related Emotional Disorders (SCARED)
Sexual and Gender Minority	82.8	72.0
Heterosexual	51.3	45.1

A Pearson's product-moment correlation was used to analyze the relationship between CVS scores and time spent on the Internet and on cell phones. As in similar studies of cyberbullying (e.g., Hinduja & Patchin, 2008; Ybarra & Mitchell, 2004), there was a small positive correlation between daily time spent on the Internet and increased cyberbullying victimization,  $r(204) = .280, p < .001$ , as well as a small positive

correlation between daily time spent on one's cell phone and increased cyberbullying victimization,  $r(202) = .191, p = .006$ . As might be expected, adolescents who spend more time online or more time on their phones (other than making or receiving calls) experience more cyberbullying victimization likely due to more opportunity on the part of the cyberbullies and more exposure to technology for the victims (e.g., Hinduja & Patchin, 2008; Ybarra & Mitchell, 2004).

A one-way ANOVA was conducted to determine if males and females differed in reported frequency of their cyberbullying victimization. Females experienced more cyberbullying victimization ( $M = 23.21, SD = 8.56$ ) than males ( $M = 21.54, SD = 10.09$ ), but the difference between the two was not statistically significant,  $F(1, 202) = 1.473, p = .226$ . As with other studies examining gender differences in cyberbullying victimization (e.g., Tokunaga, 2010), the experience of cyberbullying affects both genders equally.

A one-way multivariate analysis of variance (MANOVA) was conducted to determine if SGM and heterosexual participants differed significantly on their responses to two items added to the CVS, which asked if they had been cyberbullied due to their perceived or actual sexual orientation. Approximately 47% of SGM participants reported experiencing some amount of cyberbullying due to their perceived sexual orientation and approximately 46.0% experienced cyberbullying due to their actual sexual orientation. Full results are presented in Table 5. There was a statistically significant difference between SGM and heterosexual participants on the combined dependent variable,  $F(2, 203) = 32.733, p < .001$ , Wilks'  $\Lambda = .756$ ; partial  $\eta^2 = .244$ . The effect size indicated that approximately 24.0% of the variance in the responses to those questions could be accounted for by one's sexual orientation. Due to the significant difference between the

groups, these two items were removed from subsequent analyses utilizing the CVS.

However, these results suggested that one's perceived or actual sexual orientation was the source of much of the cyberbullying received by SGM youth and nearly 25% of SGM participants experienced this type of bullying at medium to high levels.

An independent samples *t*-test was run to determine if there were differences in the frequency of cyberbullying victimization between SGM participants who had disclosed their sexual orientation to both their family and friends ( $M = 24.25$ ;  $SD = 9.52$ ) and those who had not disclosed to both their family and friends ( $M = 24.55$ ;  $SD = 11.95$ ). The difference between the groups was not statistically significant,  $t(89) = -.120$ ,  $p = .904$ .

### **Primary Data Analyses**

Data analyses conducted to answer each of the research questions of interest are presented below.

- Q1     Is there a significant difference between sexual and gender minority students and heterosexual students in the frequency of their cyberbullying victimization?

Because samples were obtained from the same high schools and SGM organizations in the general region of these high schools, it could not be assumed that there was independence of observations. Therefore, the desired alpha level was set at a more conservative level of .01. This adjustment increases the power of the analysis and decreases the likelihood of committing a Type I error due to a violation of the assumption of independence.

Table 5

*Descriptive Statistics for Cyberbullying Based on Perceived or Actual Sexual Orientation*

Frequency	Have you been bullied because of your perceived sexual orientation?				Have you been bullied because of your actual sexual orientation?			
	Heterosexual ( <i>n</i> = 113)		Sexual and Gender Minority ( <i>n</i> = 93)		Heterosexual ( <i>n</i> = 113)		Sexual and Gender Minority ( <i>n</i> = 93)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Hasn't happened at all in past 2-3 months	104	92.0	49	52.7	112	99.1	50	53.8
1 or 2 times in past 2-3 months	7	6.2	19	20.4	0	0.0	22	23.7
2 or 3 times per month in past 2-3 months	1	0.9	12	12.9	1	0.9	14	15.1
Once a week for past 2-3 months	1	0.9	8	8.6	0	0.0	5	5.4
Several times per week in past 2-3 months	0	0.0	5	5.4	0	0.0	2	2.2

Among all participants, there were three outliers present in the heterosexual group and seven outliers in the SGM group, as assessed by visual inspection of a boxplot. These outliers were included in the analysis after a square root and logarithmic transformation was attempted and did not result in a change in the normality or heterogeneity of variances assumptions. CVS scores were not normally distributed, as assessed by the Shapiro-Wilk's test ( $p < .05$ ) and visual inspection of Q-Q plots. However, because the independent  $t$ -test is robust to violations in this assumption, the analysis was continued.

The homogeneity of variances assumption, as assessed by Levene's test for equality of variances ( $p = .02$ ) was violated. Therefore, the Welch  $t$ -test was used to determine if there were statistically significant differences between the frequency of cyberbullying victimization of SGM and heterosexual participants. Of the heterosexual participants, approximately 75.0% reported experiencing one or more cyberbullying victimization incidents and 90.0% of the SGM participants reported experiencing one or more cyberbullying incidents. The reported frequency of cyberbullying victimization was significantly higher among SGM participants ( $M = 24.51$ ,  $SD = 10.33$ ) than among heterosexual participants ( $M = 21.14$ ,  $SD = 7.52$ ), as measured by total scores on the CVS. Sexual and gender minority participants' mean scores on the CVS was 3.36 points (95% CI [0.82 to 5.90]) higher than heterosexual participants' mean scores. There was a statistically significant difference in the mean CVS scores between heterosexual and SGM participants,  $t(164.118) = -2.619$ ,  $p = .01$  indicating that SGM students experienced more frequent cyberbullying than their heterosexual peers. An effect size could not be calculated due to the violation in the homogeneity of variances assumption because the statistic is calculated using the pooled variance.

- Q2 Do sexual and gender minority students who report experiencing medium or high levels of cyberbullying in the past two or three months (as measured by a score of 18 or more on the Cybervictimization Survey) report experiencing higher levels of depression and anxiety than heterosexual students who report experiencing medium or high levels of cyberbullying in the past two or three months?

A two-way factorial MANOVA was conducted to determine the effect of participants' sexual orientation and frequency of cyberbullying victimization on self-reported depression and anxiety levels using total scores on the CES-D and the SCARED as dependent variables. The independent variables were sexual orientation (heterosexual or SGM) and frequency of cyberbullying victimization (medium or high). Cut points for the frequency of cyberbullying victimization were assigned by dividing the scores into three equal groups. Low scores were those between 15 and 17, medium scores were those between 18 and 22, and high scores were those above 23 on the CVS. Low scores were not included in the analyses because the participants experienced only 0 to 2 incidents of cyberbullying in the past two to three months. After removing the cases with low scores, a total of 132 cases were analyzed. Two MANOVA analyses were conducted, therefore a Bonferroni adjusted alpha level of .025 was used for each. This adjustment was made in order to decrease the odds of committing a Type I error.

Preliminary assumption checking revealed heterosexual participants' scores on the SCARED were normally distributed, as assessed by Shapiro-Wilk's test ( $p = .107$ ) and SGM participants' scores on the CES-D were normally distributed ( $p = .089$ ). Participants with medium and high levels of cyberbullying victimization had normally distributed scores on the SCARED ( $p = .111$ ,  $p = .058$ , respectively). All other combinations of the dependent variables and the independent variables were not normally distributed. However, because MANOVA is robust to violations of this assumption with

a large sample size, the analysis was continued. There were no univariate or multivariate outliers in the four groups on each dependent variable of interest as assessed by visual inspection of boxplots and Mahalanobis distance ( $p > .001$ ), respectively. There were linear relationships between the dependent variables for each group of the independent variables, as assessed by visual inspection of scatterplots. There was no multicollinearity as assessed by a Pearson correlation ( $r = .729, p < .001$ ) and there was homogeneity of variance-covariance matrices, as assessed by Box's M test ( $p = .583$ ). Means and standard deviations for each of the groups on the SCARED and CES-D are shown in Table 6.

There was not a significant interaction between sexual orientation and frequency of cyberbullying victimization on the combined dependent variables,  $F(2, 127) = 2.694, p = .071$ ; Wilks'  $\Lambda = .959$ ; partial  $\eta^2 = .041$  using the Bonferroni adjusted alpha level of .025. These results are presented in Table 7. The independent effect of sexual orientation was statistically significant,  $F(2, 127) = 3.797, p = .025$ ; Wilks'  $\Lambda = .944$ ; partial  $\eta^2 = .056$ . There was also a statistically significant difference between the groups based on frequency of cyberbullying victimization on the combined dependent variables,  $F(2, 127) = 6.882, p = .001$ ; Wilks'  $\Lambda = .902$ ; partial  $\eta^2 = .098$ . Sexual and gender minority youth and heterosexual youth differed significantly from one another on the combined dependent variables of depression and anxiety. Additionally, youth who experienced high levels of victimization differed significantly from youth who experienced medium levels of victimization on the combined dependent variables. These differences were examined more closely using univariate ANOVAs.

Table 6

*Descriptive Statistics for Screen for Child Anxiety Related Emotional Disorders (SCARED) and Center for Epidemiologic Studies-Depression Scale (CES-D) Total Scores*

	Heterosexual				Sexual and Gender Minority			
	Medium ( <i>n</i> = 29)		High ( <i>n</i> = 34)		Medium ( <i>n</i> = 28)		High ( <i>n</i> = 41)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
SCARED	30.07	17.22	38.15	14.55	39.11	17.92	43.63	19.46
CES-D	20.90	11.20	33.44	12.94	31.32	12.09	34.98	13.60

*Note:* Total scores on the SCARED range from 0 to 81, with higher scores indicating more severe anxiety symptoms. Total scores on the CES-D range from 0 to 60, with higher scores indicating more severe depression symptoms.

Table 7

*MANOVA Comparing Center for Epidemiologic Studies-Depression Scale (CES-D) and Screen for Child Anxiety Related Emotional Disorders (SCARED) Total Scores*

	Wilks' Lambda	<i>F</i>	<i>df</i>	Error <i>df</i>	<i>p</i>	Partial Eta Squared
Sexual Orientation	.944	3.797	2	127	.025*	.056
Victimization Level	.902	6.882	2	127	.001*	.098
Orientation*Victimization Level	.959	2.694	2	127	.071	.041

Note: *df* = degrees of freedom. \**p* values were significant at the Bonferroni adjusted alpha level of .025.

Significant multivariate analyses were followed-up by conducting univariate ANOVAs. The results of these analyses are presented in Table 8. Follow-up univariate ANOVAs showed that both SCARED scores ( $F(1, 128) = 5.568, p = .020$ ; partial  $\eta^2 = .042$ ) and CES-D scores ( $F(1, 128) = 7.244, p = .008$ ; partial  $\eta^2 = .054$ ) were significantly different between SGM and heterosexual participants, using a Bonferroni adjusted alpha level of .025. Only CES-D scores ( $F(1, 128) = 13.291, p < .001$ ; partial  $\eta^2 = .094$ ) were statistically significantly different among the medium and high levels of cyberbullying victimization. These results indicated that SGM adolescents had significantly higher depression and anxiety scores than heterosexual youth and that youth who were cyberbullied most frequently reported significantly higher levels of depressive symptoms, although the effect sizes were very small, which indicates that other variables may be responsible for the difference between the groups.

Table 8

*ANOVA Comparing Participants on the Center for Epidemiologic Studies-Depression Scale (CES-D) and Screen for Child Anxiety Related Emotional Disorders (SCARED)*

	<i>F</i>	<i>df</i>	Error <i>df</i>	<i>P</i>	Partial Eta Squared
Sexual Orientation					
Screen for Child Anxiety Related Emotional Disorders (SCARED)	5.568	1	128	.020*	.042
Center for Epidemiologic Studies-Depression Scale (CES-D)	7.244	1	128	.008*	.054
Victimization Level					
Screen for Child Anxiety Related Emotional Disorders (SCARED)	4.193	1	128	.043	.032
Center for Epidemiologic Studies-Depression Scale (CES-D)	13.291	1	128	.000*	.094

*Note:* \*Significant at the  $p < .025$  level.

A discriminant analysis was performed with sexual orientation as the dependent variable and SCARED and CES-D total scores as predictor variables. A total of 132 cases were analyzed. Univariate ANOVAs revealed that SGM and heterosexual participants differed significantly ( $p < .05$ ) on each of the two predictor variables (i.e., SCARED and CES-D total scores). A single discriminant function was calculated. The value of this function was significantly different for SGM and heterosexual participants (Chi-square = 6.800,  $df = 2$ ,  $p = .033$ ). The correlations between predictor variables and the discriminant function suggested that both SCARED and CES-D scores were good predictors of sexual orientation, with CES-D scores (.614) being a slightly better predictor than SCARED scores (.463). SCARED and CES-D scores were positively correlated with the discriminant function value, suggesting that participants with higher scores were more likely to identify as SGM. Overall, the discriminant function successfully predicted sexual orientation for 56.1% of cases, with accurate predictions being made for 57.1% of heterosexual participants and 55.1% of SGM participants. In order to decrease bias in these results, a jackknife classification procedure was used. The cross-validated classification procedure successfully predicted sexual orientation for 53.8% of cases, with accurate predictions being made for 54.0% of heterosexual participants and 53.6% of SGM participants.

An additional discriminant analysis was conducted to predict the level of cyberbullying victimization (medium or high) a participant experienced. Predictor variables were total scores on the SCARED and CES-D. A total of 132 cases were analyzed. Univariate ANOVAs revealed that participants with medium and high levels of cyberbullying victimization differed significantly on each of the two predictor variables

( $p < .05$ ). One discriminant function was calculated. The value of the function was significantly different for the groups based on frequency of cyberbullying victimization (Chi-square = 12.775,  $df = 2$ ,  $p = .002$ ). The correlations between the predictor variables and the discriminant function suggested that CES-D scores were the best predictor of group membership (1.172) compared to SCARED scores (-.263). The positive correlation between CES-D scores and the function indicate that higher scores on the CES-D indicate a participant is experiencing a high level of cyberbullying victimization. Overall, the discriminant function successfully predicted group membership for 63.6% of the cases, with accurate predictions being made for 61.4% of participants experiencing medium levels of cyberbullying and 65.3% of participants experiencing high levels of cyberbullying. In order to decrease bias in these results a jackknife classification procedure was used. The cross-validated classification table showed that overall 62.1% of cases were correctly classified, with accurate predictions being made for 59.6% of participants experiencing medium levels of cyberbullying and 64% of participants experiencing high levels of cyberbullying.

Q3 Do sexual and gender minority students who report being open about their sexual orientation with their family and friends (as indicated by a response of 'yes' to both questions about disclosure) experience lower levels of depression and anxiety than sexual and gender minority students who are not open about their sexual orientation (as indicated by a response of 'no' to one or both of the disclosure questions)?

A one-way MANOVA was conducted to determine the effect of SGM participants' disclosure status (disclosed to both family and friends or not disclosed to both family and friends) on their self-reported levels of depression and anxiety. Sexual and gender minority participants who reported disclosing their sexual orientation to both their family and friends were included in the disclosed group ( $n = 69$ ), while SGM

participants who reported only disclosing their sexual orientation to either their family or friends ( $n = 22$ ) were included in the not disclosed group. Preliminary assumption checking revealed that the data were normally distributed for each group, as assessed by Shapiro-Wilk's test ( $p > .05$ ), with the exception of CES-D scores of SGM students who had not disclosed their orientation ( $p = .041$ ). There were no univariate or multivariate outliers, as assessed by inspection of a boxplot and Mahalanobis distance ( $p > .0001$ ), respectively. There were linear relationships between the dependent variables, as assessed by visual inspection of scatterplots and no multicollinearity as assessed by a Pearson correlation ( $r = .816, p < .001$ ). There was homogeneity of variance-covariance matrices, as assessed by Box's M test ( $p = .441$ ).

Sexual and gender minority participants who had disclosed their sexual orientation had similar scores to SGM participants who had not disclosed their sexual orientation status to their family and friends on the SCARED assessment of anxiety ( $M = 38.739, SD = 18.021$  and  $M = 38.682, SD = 22.016$ , respectively). Sexual and gender minority participants who had disclosed their sexual orientation had similar scores to SGM participants who had not disclosed their sexual orientation status to their family and friends on the CES-D assessment of depression ( $M = 30.493, SD = 13.193$  and  $M = 29.864, SD = 13.813$ , respectively). The difference between the students who had disclosed and those who had not disclosed their orientation on the combined dependent variables was not statistically significant,  $F(2, 88) = .039, p = .961$ ; Wilks'  $\Lambda = .999$ ; partial  $\eta^2 = .001$ .

### **Summary of Findings**

The present study examined whether SGM adolescents experience more frequent cyberbullying victimization than heterosexual adolescents, if SGM adolescents who experienced higher levels of cyberbullying victimization experienced higher levels of depression and anxiety than heterosexual adolescents who experienced similar levels of cyberbullying, and if SGM adolescents who had disclosed their sexual orientation to their family and friends had lower levels of depression and anxiety than those who had not disclosed their orientation. Sexual and gender minority participants experienced significantly higher levels of cyberbullying than heterosexual participants. Sexual and gender minority youth also reported significantly higher levels of depression and anxiety than heterosexual participants. Participants who experienced the highest amounts of cyberbullying reported significantly higher depression scores than those who experienced medium amounts of cyberbullying, but this finding was true across both SGM and heterosexual groups and not specific to SGM participants. There were no significant differences on the SCARED and CES-D among those SGM participants who had disclosed their orientation to family and friends and those who had not disclosed their orientation.

## **CHAPTER V**

### **DISCUSSION**

According to the most recent GLSEN national school climate survey, half of LGBT youth continue to report that they are bullied electronically, and as a result, feel unsafe at school (Kosciw, Greytak, Palmer, & Boesen, 2014). These youth also report higher levels of internalizing problems, such as low self-esteem and depression, which can lead to increased thoughts of suicidality (Kosciw et al., 2014). These findings are sobering and underscore the importance of exploring effective strategies to prevent cyberbullying and developing interventions to decrease feelings of depression and anxiety following cyberbullying victimization.

The present study also found high levels of cyberbullying experienced by SGM youth, with approximately 75% experiencing medium to high levels of victimization in recent months. Sexual and gender minority adolescents are at risk for multiple negative outcomes in their social, emotional, psychological, and academic lives, such as negative self-image, suicidality, lower academic achievement and increased rates of absenteeism, and rejection from family and peers (e.g., Almeida et al., 2009; D'Augelli et al., 1998; Garofalo et al., 1999; Igartua et al., 2003; Robinson & Espelage, 2011). In addition to these negative outcomes, SGM youth who experience traditional bullying rate themselves as having higher levels of anxiety, isolation, depression, substance use, hopelessness, and loneliness than their heterosexual peers who experience similar amounts of bullying (e.g., Bontempo & D'Augelli, 2002, Safren & Heimberg, 1999, Varjas et al., 2008). Therefore,

it was important to understand the pervasiveness of cyberbullying, the relationship between cyberbullying and mental health symptoms, as well as the degree to which disclosing one's status interacts with these outcomes.

### **Summary of Findings**

Consistent with previous work in this area (e.g., Robinson & Espelage, 2011; Schneider et al., 2012), SGM youth in this study reported experiencing significantly more cyberbullying than their heterosexual peers. Specifically, 91.4% of SGM youth endorsed cyberbullying victimization at any level, as compared to 75.2% of heterosexual youth. Despite indicators that public opinion is slowly changing to be positive toward individuals with non-heterosexual sexual identities, high levels of aggression continue to exist both nationally and locally. In fact, the most recent National School Climate Survey conducted by GLSEN found that 54.0% of students sampled in Colorado experienced cyberbullying in the past year and those students who experienced higher levels of victimization had higher levels of depression and lower self-esteem (Kosciw et al., 2014).

Sexual and gender minority adolescents in this study reported experiencing higher levels of depression and anxiety than heterosexual adolescents. However, when examining this difference more closely and controlling for the frequency of cyberbullying victimization, SGM youth who were cyberbullied did not differ significantly from their heterosexual peers. This finding differed from those of Cooper and Blumenfeld (2012) who concluded that SGM youth felt depressed, anxious, embarrassed, and had increased suicidal thoughts as a result of being cyberbullied. It is possible that youth who are SGM experience higher levels of depression and anxiety regardless of their level of

victimization because of their perceived “difference” from their peers and as a result of minority stress they may experience (Meyer, 2003).

Despite findings from past research indicating the presence of a relationship between victimization of SGM youth and higher levels of depression that was not found in this study when looking at the interaction between the frequency of cyberbullying victimization and sexual orientation. Previous research has not focused on differentiating between anxiety and depression in SGM youth who are the victims of cyberbullying. It is possible that SGM youth may feel more helpless and hopeless (symptoms of depression) with cyberbullying because they may or may not know whom the instigator is and they may not believe that there is anyone to turn to for help. Additionally, scores on the depression and anxiety measures were highly correlated, which may have decreased the chance to find significant differences between the groups. Lastly, Varjas, Meyers, Kiperman, and Howard (2013) found that SGM youth utilize social media and the Internet to research, access resources, and obtain a sense of community with other sexual minority youth. This use of technology for positive support and resources may outweigh the potential negative impact of cyberbullying victimization and feelings associated with depression.

Although it was expected that youth who were open about their sexual orientation might experience fewer negative emotional outcomes, there were no significant differences in depression and anxiety levels between SGM adolescents who had come out to both family and friends and those who had not. Prior research examining the effect of disclosing one’s sexual orientation may have on the mental health of SGM youth was mixed and had indicated that SGM youth who came out to their family and friends and

experienced negative reactions may experience more physical abuse at home, may be at a higher risk for losing friends, and may have increased feelings of depression and mental health problems (i.e., D'Augelli, 2002; Ryan et al., 2010). However, SGM youth who experienced little to no familial rejection and who felt supported by their parents reported higher levels of self-esteem, were in better general health, and had more social support (Ryan et al., 2010). The present study did not specifically address the types of reactions demonstrated by the participants' family members and friends. For example, some youth may have had positive experiences and others negative, so in the end, there was enough variation that the impact of this factor could not be determined.

Future research in this area should include items of questionnaires addressing the reaction of participants' family and friends. It would be expected that those who had disclosed and had been met with a more positive response might be more resilient to bullying than those who had experienced more negative responses. Other contextual factors that may have played a role, such as the level of 'outness' a person has shared with others (Balsam & Mohr, 2007), may also be an important determinant. Future research in this area might include using a scale to examine what level of disclosure a participant is in, such as the *Outness Inventory* (Mohr & Fassinger, 2000). Questionnaires such as these could more closely examine the type of reaction an adolescent received upon coming out to family members and friends. If the adolescent received a positive and supportive response, they may be more likely to report having higher levels of self-esteem and social support (Ryan et al., 2010). In contrast, youth who received negative reactions may be at a higher risk for experiencing feelings of depression, becoming the victim of physical abuse, and may be ostracized from their peers (D'Augelli, 2002; Ryan

et al., 2010). This would allow researchers to better distinguish between internalizing disorders that are the result of negative familial or peer reactions and problems that result from cyberbullying victimization. Additionally, since the majority of youth in this study (74.2%) had disclosed their status, the small sample size of youth who had not disclosed their orientation in the study may not have provided a sufficient comparison group.

The trend toward youth disclosing their sexual orientation at earlier ages was consistent with polls that have shown youth were more likely to identify as SGM than older adults (Gates, 2011; Gates & Newport, 2012). Because participants were recruited from SGM organizations and a Pride Festival, the youth may have been more comfortable sharing their sexual orientation with others. Indeed, the high percentage of SGM participants in this study who had disclosed their sexual orientation to both family and friends was much higher than percentages of same age SGM youth in previous studies who were out to everyone in their lives (e.g., D'Augelli, 2006). It is possible that, in the intervening years between these studies, more youth are feeling comfortable in coming out to their families and friends or the difference may be due to sampling. Only seven students in this study had not disclosed to either their family or friends.

With the continuing evolution of technology, SGM youth continue to be at risk for experiencing cyberbullying victimization as evidenced by the relatively small change in the percentage of SGM youth who report being cyberbullied on the national GLSEN surveys. This finding should encourage school psychologists and everyone who work with SGM youth to be vigilant in their cyberbullying prevention and intervention efforts, because so many SGM youth are the victims of both traditional bullying victimization and cyberbullying victimization. It should also be noted that all educators should strive

to create a safe and supportive school environment for all youth, including adolescents who are members of any minority group, as these youth are also at risk for victimization at school and within their communities.

### **Implications**

Findings from this study revealed that SGM adolescents were more frequently the victims of cyberbullying than heterosexual adolescents. Additionally, all youth who experienced high levels of cyberbullying victimization in the previous several months experienced higher levels of depression than their peers who experienced similarly high levels of cyberbullying. A vast majority of participants in the study (75.2% of heterosexual participants and 91.4% of SGM participants) had experienced some amount of cyberbullying victimization in the past two to three months. Regardless of sexual orientation, cyberbullying is a pervasive problem and there is a need to identify and implement prevention and intervention services surrounding cyberbullying. Just as bullying and cyberbullying should be viewed using Bronfenbrenner's (1977) bioecological model as a framework, prevention and intervention programming should also be viewed through this theoretical framework (Pearce, Cross, Monks, Waters, & Falconer, 2011). Pearce et al. (2011) suggest using a whole-school approach to decrease cyberbullying and traditional bullying, which should focus on the school, classroom, home, and individual levels. Using this model, school psychologists could focus on increasing the awareness of cyberbullying, conduct assessments to determine the needs of their schools, prevent cyberbullying, intervene in cyberbullying, and create school policies to address instances of cyberbullying (Diamanduros, Downs, & Jenkins, 2008).

Prevention of cyberbullying can occur in various ways. School psychologists could educate staff, students, and parents through handouts, PTO presentations, and classroom lessons about the impact of cyberbullying, the warning signs of victimization or bullying, and the basics of digital citizenship (Diamanduros et al., 2008). Students could also benefit from being educated about cyberbullying in its various forms and what they could do to protect themselves from it. As noted, not only do students need this information, but school staff and parents could learn about what cyberbullying is, what the outcomes of cyberbullying are, how to stop cyberbullying, and the legal ramifications of cyberbullying. Educators could host informational meetings for parents throughout the year in order to teach them best practices in preventing and intervening in cyberbullying victimization. Additionally, educators could participate in or host sensitivity trainings about the SGM population in order to increase the public's knowledge and awareness of the risks faced by this group.

Peer-mentoring programs have been successfully utilized to teach younger students about cyberbullying and Internet safety (Diamanduros et al., 2008). These peer mentoring programs could also be used to educate youth about various minority groups in order to increase knowledge and acceptance of all students (e.g., racial minority groups, students with disabilities, religious minorities, etc.). Cyberbullying prevention curricula are still being developed, but some programs currently in existence that focus solely on cyberbullying include: iSAFE Internet Safety Program; Cyberbullying: A Prevention Curriculum; and Lets Fight it Together: What We All Can Do to Prevent Cyberbullying (Childnet International, 2007; i-SAFE Inc., 1998; Kowalski & Agatston, 2009). Outcome research on the effectiveness of these programs is limited, however, one study found that

psychoeducational cyberbullying prevention and intervention programs were most effective in increasing students' knowledge of Internet safety, but did little to decrease risky online behaviors (Mishna, Cook, Saini, Wu, & MacFadden, 2011). Identifying prevention and intervention programs that decrease cyberbullying behaviors is an area of critical future research. There is, however, more empirical support for programs designed to prevent traditional bullying behaviors. One of the most well-known bullying prevention programs is the Olweus Bullying Prevention Program, which has been shown to decrease bullying behaviors in students between the ages of five and 18 (e.g., Limber, 2004; Nansel et al., 2001). Cyberbullying components could be added to this curriculum in order to address both the similarities and differences between the two types of victimization.

All educators and adults, including parents, who work with SGM youth need to be aware of the online lives of their students and how their online interactions may be leading to increased feelings of depression. This education could occur in the general education classroom, but may also be taught during meetings of the school's Gay-Straight Alliance (GSA) or other student-led group for SGM youth. Furthermore, much like interventions for traditional bullying, there is a need to help educate bystanders about the importance of speaking up. These types of programs may increase the likelihood that bystanders of cyberbullying will attempt to stop the bullying. Students can be taught to ignore cyberbullying messages, block the bully, save copies of the correspondence, and tell an adult (e.g., Diamanduros et al., 2008; Snakenborg, Van Acker, & Gable, 2011). Telling an adult is one of the most important ways to intervene in cyberbullying, but many SGM adolescents do not report online victimization to adults due to fears

surrounding possibly outing themselves and losing access to their technology (Blumenfeld & Cooper, 2010). Lastly, school psychologists can work to develop school-wide policies that address cyberbullying and should find ways to educate their colleagues about the legal and ethical issues surrounding cyberbullying (Diamanduros et al., 2008).

School psychologists who work with SGM youth need to be aware of the online lives of their students and how their online interactions may be leading to increased feelings of depression. These discussions could occur during meetings of the school's GSA or could be included in bullying prevention curricula already in use at the school. It is crucial that SGM youth are aware of supportive adults to whom they can talk and report incidents of cyberbullying victimization. This awareness could be built through the posting of "Safe Zone" stickers or posters in the offices of school psychologists, counselors, and ally teachers.

The high level of cyberbullying experienced by all students and its negative effects supports the need for universal mental health screenings in schools as part of the multi-tiered system of supports (MTSS). Sexual and gender minority adolescents had significantly higher depression and anxiety scores than heterosexual adolescents, although sexual orientation accounted for only a very small percentage of the variance in scores on these measures. On average, SGM and heterosexual students who participated in the study rated themselves well above cutoff levels in terms of depression and anxiety, indicating significant amounts of distress among both groups. It is important to note that the cut off scores for the CES-D were established several decades ago (e.g., Radloff, 1977), although these cut offs are still widely accepted in recent research (e.g., Hicks & McCord, 2012; Smarr, 2003). Additionally, the SCARED cut off scores were established

in Birmaher et al.'s (1999) study. These high depression and anxiety scores should be interpreted with caution due to this. Schools can implement tiered interventions to address depression in youth.

Youth who are experiencing high levels of depression should be given opportunities to participate in intensive, evidence-based intervention programs, such as cognitive behavior therapy that focuses on restructuring negative or distorted thoughts, teaching problem solving skills, and social skills training (Desrochers & Houck, 2013). Lastly, the most effective programs for preventing depression should be comprehensive in nature, should utilize various teaching methods, should be based on a theory, should promote positive relationships, should be developmentally appropriate, should include outcome evaluations, and should be provided by staff that are sufficiently trained (Desrochers & Houck, 2013).

### **Limitations**

As with any type of survey methodology, response bias may have been present, despite assurances of confidentiality and an emphasis on the importance of answering honestly. However, since students rated themselves as having experienced high levels of cyberbullying, depression, and anxiety, it did not appear that there were systematic efforts to present themselves in a positive light. A more likely source of bias occurred through the individuals who chose or did not choose to participate in the study. Similarly, due to the fact that SGM participants were obtained from SGM organizations and the Pride Festival, these youth may have been more comfortable discussing and expressing their sexual orientation than SGM youth obtained from other sources (e.g., traditional high schools).

An additional limitation of the present study was that there was no way to control for participants' depression and anxiety levels prior to their cyberbullying victimization. Sexual and gender minority youth are at risk of experiencing victimization in other areas of their lives and may also be experiencing higher levels of internalizing problems due to minority stress (Meyer, 2003). Future research could include a question on the demographic information page that asks participants about prior mental health diagnoses in order to control for those participants with clinical diagnoses from the general sample because these data points may have been outliers. Longitudinal research designs may aide in determining which factors are most likely to cause increases in depression and anxiety.

Multiple participants also asked the researcher to explain what the word "disclose" meant on the demographic information page. In future research, the term "come-out" should be used, because participants may be more familiar with that terminology. Participants who did not ask for clarification or a definition of the word may have misunderstood what was being asked of them and they may have answered incorrectly.

### **Areas of Future Research**

The CVS appears to be an instrument with strong reliability and consistent use of this tool in future research would allow researchers to measure the construct of cyberbullying in a more consistent manner, allowing for direct comparisons to be made between studies (e.g., Brown, 2011). Additionally, longitudinal research designs should be utilized to determine whether depression and anxiety scores increase with experiences

of cyberbullying victimization or if SGM youth experience higher levels of depression and anxiety due to other factors related to their sexual orientation.

Future research could examine protective factors that are present in youth who experience high levels of cyberbullying victimization, but who do not report experiencing negative reactions. It was well established within the literature that victims of traditional bullying experienced depression, therefore, it may be beneficial to examine aspects of depression following cyberbullying in order to develop a better understanding of the specific types of symptoms adolescents experience in order to develop interventions that target these specific problems. Although some studies also identified increased anxiety, that was not upheld in this study when more comprehensive measures of anxiety were used. Future studies should analyze the various subtypes of anxiety on measures such as the SCARED in order to determine more specific sources for intervention planning.

Lastly, the relationship between traditional bullying and cyberbullying is still being examined. The present study revealed that SGM youth experienced more frequent cyberbullying victimization as well as higher levels of depression and anxiety than heterosexual adolescents, which was consistent with the patterns of internalizing problems found among youth who are the victims of traditional bullying. This finding suggested that the effect of cyberbullying victimization and traditional bullying victimization may have been more similar than different. However, due to the online disinhibition effect (Suler, 2004), the pervasive nature of cyberbullying and the larger audience, SGM youth who are the victims of cyberbullying may experience higher amounts of internalizing disorders than those who experience traditional victimization alone. Indeed, there is recent research to suggest that youth who experience cyberbullying

in addition to traditional bullying had higher levels of internalizing and externalizing problems than youth who only experienced traditional forms of bullying, such as physical, verbal, or relational (Waasdorp & Bradshaw, in press). Future research could examine this overlap and ask students about their experiences with both traditional and cyberbullying.

### **Summary**

The present study examined differences in self-reported depression and anxiety levels between SGM and heterosexual adolescents who experienced recent cyberbullying victimization. A total of 206 adolescents were sampled and the results indicated that SGM youth experienced significantly higher levels of cyberbullying victimization than heterosexual youth. Additionally, SGM youth reported experiencing higher levels of depression and anxiety than heterosexual youth. All participants who reported experiencing the highest rates of victimization reported experiencing significantly higher levels of depression. However, there were no significant differences between the groups on measures of depression and anxiety after controlling for frequency of victimization. There was no difference between SGM youth who had come out to their family and friends and those who had not. Educators, parents, and community members should focus on preventing cyberbullying victimization and should work to protect all youth from the negative outcomes associated with this victimization. Additionally, schools and communities should focus on educating youth about diverse populations and the importance of respecting and caring for others regardless of these differences.

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**APPENDIX A**

**RECRUITMENT LETTER FOR HIGH SCHOOLS**

Dear [Principal's name was inserted here],

My name is Jessica Byrd, and I am a doctoral student studying school psychology at the University of Northern Colorado (UNC) in Greeley. I am currently working on completing my dissertation research and would like to invite the students at your school to participate in my study. The purpose of my study is to gain a better understanding of the impact that cyberbullying victimization has on heterosexual and lesbian, gay, bisexual, and transgender (LGBT) adolescents between the ages of 15 and 18. More specifically, this study will examine the effect that cyberbullying has on LGBT students' self-reported levels of depression and anxiety as compared to heterosexual cyberbullying victims.

The most recent large-scale studies indicate that 32% of students between the ages of 12 and 18 have experienced traditional bullying at school, with 21% of those being bullied at least once or twice per month. With the advent of new technology, cyberbullying has developed into a new form of bullying and recent studies indicate that, on average, about 24% of the youth sampled are the victims of cyberbullying. LGBT youth are more likely to be the victims of traditional bullying and cyberbullying alike, with 33% of LGBT adolescents reporting they have been cyberbullied in one recent study compared to 14% of heterosexual youth. Research has shown that students who are the victims of both traditional bullying and cyberbullying are at an increased risk for experiencing greater amounts of depression, anxiety, suicidal ideation, behavioral problems, low self-esteem, and lower academic achievement. LGBT students who are the victims of traditional bullying are at an even higher risk for experiencing higher levels of depression, suicidality, and hopelessness than their heterosexual peers.

In order to complete my study, I will be sampling LGBT youth from several LGBT organizations throughout the state. Additionally, in order to obtain a comparison group of primarily heterosexual youth, I will be sampling adolescents from various high schools throughout the state. I am contacting you because you are the principal of a high school in the state of Colorado and because I would like to invite your students to participate as members of my comparison group. Participation in my study requires students to obtain parental consent and also to sign an assent form. If parental consent and assent from the student is obtained, each student will be asked to complete 3 questionnaires about their experiences with cyberbullying and their recent feelings of depression and anxiety. Students will also be asked to complete a brief demographic questionnaire. This should take no longer than 30 minutes and will only occur at one point in time. I will be present to deliver and receive parental consent forms, explain the purpose of my study to the students, administer the questionnaires, and answer any questions you, your staff, or students may have. Copies of each of these measures can be shared with you at your request.

If you decide to participate, you will be given your school's data on the cyberbullying measure as a way for you to establish baseline data about this issue within your school or as a supplement to your current data about the issue. Additionally, I would be happy to present an in-service presentation to your students and staff about

cyberbullying prevention and intervention and will also share the completed results of my study with you in the aggregate.

Thank you for your time. I look forward to speaking further with you about my research. Please do not hesitate to contact me with any questions or concerns you may have.

Sincerely,

Jessica Byrd  
Ph.D. Candidate, School Psychology  
University of Northern Colorado  
[Byrd6886@bears.unco.edu](mailto:Byrd6886@bears.unco.edu) | (719) 659-1501

**APPENDIX B**

**RECRUITMENT LETTER FOR SEXUAL AND**

**GENDER MINORITY ORGANIZATIONS**

Dear [Director of organization's name was inserted here],

My name is Jessica Byrd, and I am a doctoral student studying school psychology at the University of Northern Colorado (UNC) in Greeley. I am currently working on completing my dissertation research and would like to invite the students at your organization to participate in my study. The purpose of my study is to gain a better understanding of the impact that cyberbullying victimization has on heterosexual and lesbian, gay, bisexual, and transgender (LGBT) adolescents between the ages of 15 and 18. More specifically, this study will examine the effect that cyberbullying has on LGBT students' self-reported levels of depression and anxiety as compared to heterosexual cyberbullying victims.

The most recent large-scale studies indicate that 32% of students between the ages of 12 and 18 have experienced traditional bullying at school, with 21% of those being bullied at least once or twice per month. With the advent of new technology, cyberbullying has developed into a new form of bullying and recent studies indicate that, on average, about 24% of the youth sampled are the victims of cyberbullying. LGBT youth are more likely to be the victims of traditional bullying and cyberbullying alike, with 33% of LGBT adolescents reporting they have been cyberbullied in one recent study compared to 14% of heterosexual youth. Research has shown that students who are the victims of both traditional bullying and cyberbullying are at an increased risk for experiencing greater amounts of depression, anxiety, suicidal ideation, behavioral problems, low self-esteem, and lower academic achievement. LGBT students who are the victims of traditional bullying are at an even higher risk for experiencing higher levels of depression, suicidality, and hopelessness than their heterosexual peers.

In order to complete my study, I will be sampling LGBT youth from several LGBT organizations throughout the state. Additionally, in order to obtain a comparison group of primarily heterosexual youth, I will be sampling adolescents from various high schools throughout the state. I am contacting you because you are the leader of an LGBT organization with programming devoted to adolescents, and because I would like to invite your students to participate in my study. Participation in my study requires students sign an assent form. If an assent from the student is obtained, each student will be asked to complete 3 questionnaires about their experiences with cyberbullying and their recent feelings of depression and anxiety. Students will also be asked to complete a brief demographic questionnaire. This should take no longer than 30 minutes and will only occur at one point in time. I will be present to deliver and receive the assent forms, explain the purpose of my study to the students, administer the questionnaires, and answer any questions you, your staff, or students may have. Copies of each of these measures can be shared with you at your request.

If you decide to participate, I would be happy to present an in-service presentation to your students and staff about cyberbullying prevention and intervention and can also share the results of my study with you in the aggregate.

Thank you for your time. I look forward to speaking further with you about my research. Please do not hesitate to contact me with any questions or concerns you may have.

Sincerely,

Jessica Byrd  
Ph.D. Candidate, School Psychology  
University of Northern Colorado  
[Byrd6886@bears.unco.edu](mailto:Byrd6886@bears.unco.edu) | (719) 659-1501

**APPENDIX C**  
**DEMOGRAPHIC INFORMATION**

## DEMOGRAPHIC INFORMATION

- 1) Age:
- 2) Please select your biological sex:  
☐ Male      ☐ Female
- 3) Year in School:
  - 1) ☐ Freshman
  - 2) ☐ Sophomore
  - 3) ☐ Junior
  - 4) ☐ Senior
- 4) Race (You may select more than one option)
  - 1) ☐ African American
  - 2) ☐ Asian American
  - 3) ☐ Arab American
  - 4) ☐ Hispanic/Latino
  - 5) ☐ Native American
  - 6) ☐ European American/White
  - 7) ☐ Other, Please Specify \_\_\_\_\_
- 5) How many hours per day, on average, do you spend on the Internet? \_\_\_\_\_
- 6) How many hours per day, on average, do you spend on your cell phone using services such as the Internet and text/picture messaging (anything but making/receiving phone calls)? \_\_\_\_\_
- 7) Do you identify as:
  - 1) ☐ Heterosexual/Straight
  - 2) ☐ Gay
  - 3) ☐ Lesbian
  - 4) ☐ Bisexual
  - 5) ☐ Transgender
  - 6) ☐ Unsure/Questioning
  - 7) ☐ Other: Please Specify \_\_\_\_\_

If you selected **any option/number other than 1) Heterosexual/Straight** for **Question 7**, please answer the following two questions:

- 8) Have you disclosed your sexual orientation status with members of your family?  
\_\_\_\_\_ Yes      \_\_\_\_\_ No
- 9) Have you disclosed your sexual orientation status with your friends?  
\_\_\_\_\_ Yes      \_\_\_\_\_ No

**APPENDIX D**  
**INSTITUTIONAL REVIEW BOARD APPROVAL**



*Institutional Review Board*

DATE: October 18, 2013

TO: Jessica Byrd  
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [462059-2] Cyberbullying in Adolescence: The Emotional Impact of Victimization

SUBMISSION TYPE: Amendment/Modification

ACTION: **APPROVED with Conditions**  
APPROVAL DATE: October 16, 2013  
EXPIRATION DATE: October 16, 2014  
REVIEW TYPE: Expedited Review

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that Informed consent is a process beginning with a description of the project and Insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of October 16, 2014.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or [Sherry.May@unco.edu](mailto:Sherry.May@unco.edu). Please include your project title and reference number in all correspondence with this committee.

Jessica -

Thank you for clearly and thoroughly addressing each of my concerns and points of revision. I have no further requests for revisions or additional materials.

Please be sure to use these additional and revised materials in your participant recruitment and data collection protocols.

You will need to file documentation of permission from the schools/districts and organizations from whom you obtain access to recruit participants before official IRB approval can be provided.

That documentation can be added as amendments to this same IRB application package.

Don't hesitate to let me know if you have any questions or concerns. Best wishes with your interesting and relevant research.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

*This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.*

**APPENDIX E**  
**PARTICIPANT CONSENT FORMS**



CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH  
UNIVERSITY OF NORTHERN COLORADO

**Project Title:** Cyberbullying in Adolescence: The Emotional Impact of Victimization  
**Researcher:** Jessica Byrd, Doctoral Candidate, Department of School Psychology  
**Phone Number:** xxx-xxx-xxxx  
**e-mail:** byrd6886@bears.unco.edu  
**Research Advisor:** Kathrine Koehler-Hak, Ph.D. Department of School Psychology  
**Phone Number:** xxx-xxx-xxxx  
**e-mail:** kathrine.hak@unco.edu

My name is Jessica Byrd and I am a School Psychology doctoral student at the University of Northern Colorado. I am researching the emotional impact that being a victim of cyberbullying has on adolescents. I am requesting participation from high school students throughout the state of Colorado who are between the ages of 15 and 18. You have been provided this form because you are a high school student in the state of Colorado.

If you decide to participate, I will ask you to complete 3 brief surveys. The first of the surveys will ask you about your experiences with cyberbullying in the past 2-3 months. Sample questions from this survey include: *"In the past 2-3 months, have you been called names online/electronically"* and *"In the past 2-3 months, have you been physically threatened online/electronically?"* The second and third surveys will ask you about emotions you have been experiencing in the past 2-3 months. Sample questions from these surveys include: *"In the past 2-3 months, I thought my life had been a failure"* and *"In the past 2-3 months, people were unfriendly"* and *"I am a worrier"* and *"I worry that something bad might happen to my parents."* The surveys will take approximately 25-30 minutes to complete.

Participation is voluntary and, if you decide to participate, the information you provide will not be linked to you in any way. You will not be asked to provide your name, but you will be asked to provide some demographic information such as your age, year in school, race/ethnicity, and sexual orientation. All participants will be given an ID number, which will be connected to their responses only. All responses will be kept anonymous. Only the researcher and her research advisor will examine individual responses. Every step possible will be taken to ensure your responses remain confidential.

The responses will be stored in an Excel file to which only the researchers will have access and will be deleted after three years. Signed consent forms and the completed surveys will be stored in a locked file cabinet at the University of Northern Colorado and will also be destroyed after three years. Results of the study will be presented in group form only (e.g., averages), unless your district has requested I share the results of the cyberbullying survey and demographic information that comes from students in their district separately. If this information is requested, it will be presented in group form only (e.g., averages) and no identifying information will be shared with the district.

There are no foreseeable risks to you if you decide to complete the surveys. However, because the surveys ask you to recall instances in which you were cyberbullied and to answer questions about your recent emotions, you may experience some feelings of discomfort, sadness, or anger as these memories and emotions become the focus of your attention for several minutes while you complete the surveys. You will be provided with a list of mental health resources in your community for you to contact, if you wish to discuss any feelings in more detail that arise from participation in this study. Additionally, you will be completing these surveys during class time, so you will be losing 25-30 minutes of instructional time. Despite the potential discomfort associated with participation in this study and the loss of instructional time, you will gain satisfaction knowing that you have made a meaningful contribution to the research in the field of cyberbullying. This growth in the research will help practitioners develop more effective prevention and intervention programs for cyberbullying and traditional bullying, which may save other students' lives and encourage them to stay in school.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.

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 Participant's Full Name (please print)

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 Participant's Birth Date  
(month/day/year)

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 Participant's Signature

---

 Date

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 Researcher's Signature

---

 Date



**CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH  
UNIVERSITY OF NORTHERN COLORADO**

**Project Title:** Cyberbullying in Adolescence: The Emotional Impact of Victimization  
**Researcher:** Jessica Byrd, Doctoral Candidate, Department of School Psychology  
**Phone Number:** xxx-xxx-xxxx  
**e-mail:** byrd6886@bears.unco.edu  
**Research Advisor:** Robyn Hess, Ph.D. Department of School Psychology  
**Phone Number:** xxx-xxx-xxxx  
**e-mail:** robyn.hess@unco.edu

My name is Jessica Byrd and I am a School Psychology doctoral student at the University of Northern Colorado. I am researching the emotional impact that being a victim of cyberbullying has on adolescents. I am requesting participation from high school students throughout the state of Colorado who are between the ages of 15 and 18. You have been provided this form because you are a high school student in the state of Colorado.

If you decide to participate, I will ask you to complete 3 brief surveys. The first of the surveys will ask you about your experiences with cyberbullying in the past 2-3 months. Sample questions from this survey include: *"In the past 2-3 months, have you been called names online/electronically"* and *"In the past 2-3 months, have you been physically threatened online/electronically?"* The second and third surveys will ask you about emotions you have been experiencing in the past 2-3 months. Sample questions from these surveys include: *"In the past 2-3 months, I thought my life had been a failure"* and *"In the past 2-3 months, people were unfriendly"* and *"I am a worrier"* and *"I worry that something bad might happen to my parents."* The surveys will take approximately 25-30 minutes to complete.

Participation is voluntary and, if you decide to participate, the information you provide will not be linked to you in any way. You will not be asked to provide your name, but you will be asked to provide some demographic information such as your age, year in school, race/ethnicity, and sexual orientation. All participants will be given an ID number, which will be connected to their responses only. All responses will be kept anonymous. Only the researcher and her research advisor will examine individual responses. Every step possible will be taken to ensure your responses remain confidential. The responses will be stored in an Excel file to which only the researchers will have

access and will be deleted after three years. Signed consent forms and the completed surveys will be stored in a locked file cabinet at the University of Northern Colorado and will also be destroyed after three years. Results of the study will be presented in group form only (e.g., averages).

There are no foreseeable risks to you if you decide to complete the surveys. However, because the surveys ask you to recall instances in which you were cyberbullied and to answer questions about your recent emotions, you may experience some feelings of discomfort, sadness, or anger as these memories and emotions become the focus of your attention for several minutes while you complete the surveys. You will be provided with a list of mental health resources in your community for you to contact, if you wish to discuss any feelings in more detail that arise from participation in this study.

Additionally, you will be completing these surveys during time devoted to programming at this organization, so you will be losing 25-30 minutes of time devoted to regular activities. Despite the potential discomfort associated with participation in this study and the loss of programming time, you will gain satisfaction knowing that you have made a meaningful contribution to the research in the field of cyberbullying. This growth in the research will help practitioners develop more effective prevention and intervention programs for cyberbullying and traditional bullying, which may save other students' lives and encourage them to stay in school. After completion of the surveys, you will have the opportunity to provide your name and email address to the researcher in order to be entered in a drawing to win a \$25 gift card to Amazon. Your name and email address will be kept separately from your surveys in order to protect your privacy and ensure confidentiality. Providing this information is optional and you will be notified via email if you are the winner.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.

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 Participant's Full Name (please print)

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 Participant's Birth Date  
(month/day/year)

---

 Participant's Signature

---

 Date

---

 Researcher's Signature

---

 Date

**APPENDIX F**  
**PARENTAL CONSENT FORM**

UNIVERSITY of  
NORTHERN COLORADO



CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH  
UNIVERSITY OF NORTHERN COLORADO

**Project Title:** Cyberbullying in Adolescence: The Emotional Impact of Victimization  
**Researcher:** Jessica Byrd, Doctoral Candidate, Department of School Psychology  
**Phone Number:** xxx-xxx-xxxx  
**e-mail:** byrd6886@bears.unco.edu  
**Research Advisor:** Kathrine Koehler-Hak, Ph.D. Department of School Psychology  
**Phone Number:** xxx-xxx-xxxx  
**e-mail:** kathrine.hak@unco.edu

My name is Jessica Byrd and I am a School Psychology doctoral student at the University of Northern Colorado. I am researching the emotional impact that being a victim of cyberbullying has on adolescents. I am requesting participation from high school students throughout the state of Colorado who are between the ages of 15 and 18. You have been provided this form because you are the parent of a high school student attending school in the state of Colorado.

If you grant permission and if your child indicates to me a willingness to participate, by signing a separate consent form with the same information I will ask your child to complete 3 brief surveys. The first of the surveys will ask your child about their experiences with cyberbullying in the past 2-3 months. Sample questions from this survey include: *"In the past 2-3 months, have you been called names online/electronically"* and *"In the past 2-3 months, have you been physically threatened online/electronically?"* The second and third surveys will ask your child about emotions they have been experiencing in the past 2-3 months. Sample questions from these surveys include: *"In the past 2-3 months, I thought my life had been a failure"* and *"In the past 2-3 months, people were unfriendly"* and *"I am a worrier"* and *"I worry that something bad might happen to my parents."* The surveys will take approximately 25-30 minutes to complete.

Participation is voluntary, and if you allow your child to participate and if your child wishes to participate, the information they provide will not be linked to them in any way. Your child will not be asked to provide his or her name, but will be asked to provide

some demographic information such as his or her age, year in school, race/ethnicity, and sexual orientation. All participants will be given an ID number, which will be connected to their responses only. All responses will be kept anonymous. Only the researcher and her research advisor will examine individual responses. Every step possible will be taken to ensure your child's responses remain confidential. The responses will be stored in an Excel file to which only the researchers will have access and will be deleted after three years. Signed consent forms and completed surveys will be stored in a locked file cabinet at the University of Northern Colorado and will also be destroyed after three years. Results of the study will be presented in group form only (e.g., averages), unless your district has requested I share the results of the cyberbullying survey and demographic information that comes from students in their district separately. If this information is requested, it will be presented in group form only (e.g., averages) and no identifying information will be shared with the district.

There are no foreseeable risks to your child if you allow him or her to complete the surveys. However, because the surveys ask participants to recall instances in which he or she was cyberbullied and to answer questions about his or her recent emotions, he or she may experience some feelings of discomfort, sadness, or anger as these memories and emotions become the focus of his or her attention for several minutes while he or she completes the surveys. Your child will be provided with a list of mental health resources available to them in the community, if they wish to discuss any feelings that arise from participation in this study further. Additionally, your child will be taking these surveys during class time, resulting in a brief loss of instructional time. Your child will be reminded both in the body of the consent form presented at the beginning of the study, and also in-person by the researcher, that he or she may stop completing the questionnaires at any time if he or she wishes.

Despite the potential discomfort associated with participation in this study, your child will gain satisfaction knowing that he or she has made a meaningful contribution to the research in the field of cyberbullying. This growth in the research will help practitioners develop more effective prevention and intervention programs for cyberbullying and traditional bullying, which may save students' lives and encourage them to stay in school.

Please feel free to call or email me if you have any questions or concerns about this research and please retain one copy of this letter for your records.

Thank you for assisting me with my research.

Sincerely,

Jessica Byrd  
Doctoral Candidate  
Department of School Psychology  
University of Northern Colorado

Participation is voluntary. You may decide not to allow your child to participate in this study and if (s)he begins participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.

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Child's Full Name (please print))

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Child's Birth Date  
(month/day/year)

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Parent/Guardian's Signature

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Date

---

Researcher's Signature

---

Date

**APPENDIX G**  
**MENTAL HEALTH RESOURCES**

## Community Mental Health Centers in the State of Colorado

The following is a list of Community Mental Health Centers in Colorado. This list is not an exhaustive list of mental health service providers throughout the state and the researcher is not affiliated with, or providing an endorsement of, any specific center. If you are interested in seeking more detailed information about the services provided at these centers or finding another mental health service provider, please contact these centers for information and referrals.

<b>CMHC</b>	<b>Contact Information</b>	<b>Counties Served</b>
<b>Arapahoe/Douglas Mental Health Network</b> Joan DiMaria, MSN, CAC III Executive Director/Chief Executive Officer	155 Inverness Dr. West Suite 200 Englewood, CO 80112 (303) 730-8858	Arapahoe, Douglas
<b>AspenPointe</b> Morris Roth, Executive Director	525 North Cascade Rd. Suite 100 Colorado Springs, CO 80935 (719) 572-6330	El Paso, Park, Teller
<b>Aurora Mental Health Center</b> Randy Stith, Executive Director	Viewpoint Plaza 11059 E. Bethany Drive Aurora, CO 80014 (303) 617-2300	City of Aurora, parts of Arapahoe
<b>Axis Health Systems</b> Bern Heath, Executive Director	281 Sawyer Dr. Durango, CO 81303 (970) 259-2162	Archuleta, Dolores, La Plata, Montezuma, San Juan
<b>Centennial Mental Health Center</b> Liz Hickman, Executive Director	211 W. Main St. Sterling, CO 80751 (970) 522-4549	Cheyenne, Elbert, Kit Carson, Lincoln, Logan, Morgan, Phillips, Sedgwick, Washington, Yuma
<b>Colorado West Regional Mental Health, Inc.</b> Sharon Raggio, Executive Director	6916 Highway 82 PO Box 40 Glenwood Springs, CO 81602 (970) 945-2583	Eagle, Garfield, Grand, Jackson, Mesa, Moffat, Pitkin, Rio Blanco, Routt, Summit
<b>Community Reach Center</b> Rick Doucet, Executive Director	8931 N. Huron St. Thornton, CO 80260 (303) 853-3500	Adams

<b>CMHC</b>	<b>Contact Information</b>	<b>Counties Served</b>
<b>Jefferson Center for Mental Health</b> Harriet Hall, Executive Director	4851 Independence St. Suite 200 Wheat Ridge, CO 80033 (303) 425-0300	Clear Creek, Gilpin, Jefferson
<b>Mental Health Center of Denver</b> Carl Clark, M.D., Executive Director	4141 E. Dickenson Place Denver, CO 80222 (303) 504-1250	Denver
<b>Mental Health Partners</b> Barbara Ryan, Executive Director	1333 Iris Ave. Boulder, CO 80304 (303) 413-6263	Boulder, Broomfield
<b>Midwestern Colorado Mental Health Center</b> Jon Gordon, Executive Director	2130 East Main St. Montrose, CO 81401 (970) 252-3200	Delta, Gunnison, Hinsdale, Montrose, Ouray, San Miguel
<b>North Range Behavioral Health</b> Larry Pottorff, Executive Director	1300 N. 17 <sup>th</sup> Ave. Greeley, CO 80631 (970) 347-2120	Weld
<b>San Luis Valley Comprehensive Community Mental Health Center</b> Fernando Martinez, Executive Director	8745 County Rd. 9 South PO Box 810 Alamosa, CO 81101 (719) 589-3671	Alamosa, Conejos, Costilla, Mineral, Rio Grande, Saguauche
<b>Southeast Mental Health Services</b> Becky Otteman, Executive Director	711 Barnes La Junta, CO 81050 (719) 384-5446	Baca, Bent, Crowley, Kiowa, Otero, Prowers
<b>Spanish Peaks Mental Health Center</b> Dorothy Perry, PhD, MBA, Chief Executive Officer	1304 Chinook Lane Pueblo, CO 81001 (719) 545-2746	Huerfano, Las Animas, Pueblo
<b>Touchstone Health Partners</b> Randy Ratliff, Executive Director	125 Crestridge St. Fort Collins, CO 80525 (970) 494-9870	Larimer
<b>West Central Mental Health Center</b> Louise Delgado, Executive Director	3225 Independence Road Canon City, CO 81212 (719) 275-2351	Chaffee, Custer, Fremont, Lake