Suicide Risk Among Gay, Lesbian, and Bisexual College Youth

Heather Elise Murphy

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Abstract

Suicide Risk Among Gay, Lesbian, and Bisexual College Youth

Heather Elise Murphy

Chair of the Supervisory Committee:
Professor James J. Mazza
Educational Psychology

The purpose of this study was to examine the relationship of suicidal behavior and victimization among gay, lesbian, and bisexual (GLB) college students, expanding the current literature involving GLB high school youth. This was accomplished by examining (1) the incidence of suicidal behavior among GLB college youth compared to their non-GLB peers, (2) the relationship of victimization among GLB college youth compared to non-GLB college youth, (3) the relationship of the victimization of GLB college students to the suicide rates among these students, and (4) the mediating effect of victimization on suicidal behavior among GLB youth. Participants were 528 college undergraduates who completed an anonymous survey involving their sexual identity, suicidal behavior, and victimization. Analyses were conducted across four groups: (1) heterosexual; (2) heterosexual with same-sex attraction and/or behavior (SSA/SSB); (3) gay, lesbian, bisexual, and queer (GLBQ); and (4) not sure. Chi-square tests of association and analyses of variance were used to examine group differences in suicidal behavior and victimization. Logistic regression models were used to determine the main effects of sexual identity and victimization and mediation of the independent predictors of suicidal behavior. Results showed that 56 students reported seriously considering attempting suicide, with the SSA/SSB and the Not Sure groups almost three times more likely to consider suicide than the heterosexual group. Forty-two participants responded that they had made a plan to attempt suicide, with the highest rate among the SSA/SSB students (33%).
SSA/SSB students were six times more likely to have attempted suicide than their heterosexual peers, and GLBQ students were two times more likely to have attempted suicide than their heterosexual peers. With victimization taken into account, GLBQ college students do not appear to be at greater risk for considering a suicide attempt than their heterosexual peers. What was not expected was the high rates of suicidal behavior among the SSA/SSB students, a new group that research has not previously identified for suicide risk. These results have implications for both GLB services and the assessment of college students who may be questioning their sexual orientation.
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DEDICATION

To Mom and Dad; I would not be here without the love, support, and encouragement you have provided every day of my life.

And to Bridget, my sister, my friend, and my fairy of joy; thanks for always believing in me and for always keeping it real.

Finally, to Cory, my love and my partner; through the exhausting days and sleepless nights of the hardest year of my life, you have held my hand, held me up, and held to a faith that I was capable of achieving my dream.
Chapter I: Introduction

Adolescent suicide is a relevant and significant issue for those who work in mental health fields (Gould, Greenberg, Velting, & Shaffer, 2003; Reynolds & Mazza, 1994; Shaffer & Pfeffer, 2001). In reviewing prevalence and incidence information regarding suicide, it currently ranks 11th among causes of death in the United States, but the 3rd for youth ages 15 through 24 (McIntosh, 2006). Suicidal behavior occurs along a continuum of suicidal ideation, suicidal intent, suicide attempts, and death by suicide (Mazza, 2006; Reynolds & Mazza, 1994).

Adolescence is the most common life period for suicidal ideation and attempted suicide (McIntosh, 2000). The prevalence of suicidal behavior among high school students is remarkably high (American Association of Suicidology [AAS], 2006). About 16.9% of high school students have seriously considered suicide, 16.5% have made a plan for an attempt, and 8.5% have made an attempt within the past year (Grunbaum et al., 2004). Among college students, 9.5% have seriously considered suicide, 8.3% have made a plan for an attempt, and 1.5% have made an attempt (AAS, 2006).

The issue of adolescent suicidal behavior is even more problematic for gay, lesbian, and bisexual (GLB) youth (Reis & Saewyc, 1999). Among GLB youth ages 14-21, 42% have sometimes or often thought about suicide, with 25% seriously considering suicide within the past year, 33% having made an attempt, with 10% having made an attempt within the past year (D’Augelli, Hershberger, &
Pilkington, 2001). At least 4.5% of high school students identify as GLB, transgender, or questioning their sexual orientation (Reis & Saewyc, 1999). By the time youth reach college age, up to 15% identify as nonheterosexual in their emotional and sexual attachments (D’Augelli, 1993).

**Gay, Lesbian, Bisexual Youth Suicide**

There is a significant difference between the percentages of suicide attempts made by GLB vs. non-gay, lesbian, or bisexual youth (Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Robin et al., 2002). In the U.S. government’s *Report of the Secretary’s Task Force on Youth Suicide*, it was projected that gay youth were 2 to 3 times more likely to attempt suicide than their heterosexual peers, and that they comprised 30% of the annual youth suicides (Gibson, 1989 as cited in Remafedi, Farrow, & Deisher, 1991). More current studies continue to find elevated rates of suicidal behavior in this population, with GLB youth being 2 to 7 times more likely to attempt suicide than their heterosexual peers (Frankowski, 2004).

**Disclosure**

Research has found two consistent factors specific to suicide among GLB adolescents; stress related to disclosure, and verbal and physical victimization (Hershberger, Pilkington, & D’Augelli, 1997). Disclosure, defined as telling oneself and others of one’s sexual identity, is often referred to as “coming out” (Gonsiorek, 1995). Coming out to self, family, and peers is associated with a
higher incidence of suicidal ideation and attempts (Bagley & Tremblay, 2000; Hershberger & D’Augelli, 1995; Kulkin, Chauvin, & Percle, 2000). Suicidal behavior is significantly related to GLB youths’ relationships with their parents, and with verbal and physical abuse by family members following disclosure (D’Augelli & Hershberger, 1993; D’Augelli, Hershberger, & Pilkington, 1998; Proctor & Groze, 1994). Disclosure provides undue stress that is not experienced by heterosexual youth, with 43% of gay males and 54% of lesbians reporting having lost at least one friend due to their sexual orientation disclosure (Pilkington & D’Augelli, 1995; Ryan & Futterman, 2001). Gay, lesbian, and bisexual youth who have engaged in suicide attempts report losing friends due to their sexual orientation, and disclose to more people than GLB adolescents who have not attempted suicide (D’Augelli & Hershberger, 1993; Hershberger, Pilkington, & D’Augelli, 1997).

Victimization

The second risk factor specific to suicide among GLB adolescents is verbal and physical victimization. Victimization due to sexual orientation is experienced by over 80% of GLB youth between the ages of 15 and 21 (Pilkington & D’Augelli, 1995). Victimization can be categorized into verbal insults, threat of attack, vandalism, objects being thrown at, being chased or followed, being spat upon, assault, assault with a weapon, and sexual assault (Pilkington & D’Augelli, 1995). Gay, lesbian, and bisexual youth are five times more likely than their
heterosexual peers to report having their property damaged or deliberately stolen, and are at an increased risk for being threatened or assaulted (Faulkner & Cranston, 1998; Garofalo et al., 1998; Reis & Saewyc, 1999).

*Verbal victimization.* Homophobic statements, terms referring to gays, lesbians, and bisexuals that can be interpreted as derogatory and devaluing, rank highest in prevalence for abusive language among adolescents; higher than racial slurs, sexist comments, and all categories of profanity (Plummer, 2001; Thurlow, 2001). Verbal insults are experienced by at least 80% of GLB youth, with 45.9% experiencing verbal victimization daily, and with males experiencing significantly more verbal insults than females (Gay, Lesbian, and Straight Education Network, 1999; Pilkington & D’Augelli, 1995).

*Physical victimization.* Verbal victimization is not the only additional violence experienced by GLB youth. Compared to their heterosexual peers, they are also at an increased risk for physical victimization, such as being threatened or assaulted (Reis & Saewyc, 1999). One-quarter to 44% of GLB youth report being threatened with physical violence, with males consistently being victimized more than females (D’Augelli, Pilkington, & Hershberger, 2002; Gay, Lesbian, and Straight Education Network, 1999; Pilkington & D’Augelli, 1995). Nearly 20% of GLB adolescents have been in a physical fight resulting in medical treatment, compared with 4% of their heterosexual peers, and they are more likely to experience, witness, or perpetrate extreme forms of violence involving knives and
guns (Garofalo et al., 1998; Russell, Franz, & Driscoll, 2001).

Verbal abuse and physical victimization are associated with suicidal behavior in GLB youth (Bagley & Tremblay, 2000; Faulkner & Cranston, 1998; Garofalo, Wolf, Wissow, Woods, & Goodman, 1999; Hershberger et al., 1997; Russell & Joyner, 2001; Reis & Saewyc, 1999; Savin-Williams, 1994). Gay, lesbian, and bisexual youths who report high levels of at-school victimization also report higher levels of suicidality than their heterosexual peers who are victimized at school (Bontempo & D’Augelli, 2002). Notably, GLB students who report low levels of at-school victimization report levels of suicidality similar to their heterosexual peers who also report low levels of at-school victimization (Bontempo & D’Augelli, 2002). These findings indicate the critically important effect of victimization in mediating suicidal behavior among GLB youth.

Need for the Present Study

Studies that have examined the relationship of victimization with suicidal behavior for GLB adolescents have typically used public high school samples, usually through data collected from the Center for Disease Control and Prevention’s Youth Risk Behavior Survey (Bagley & Tremblay, 2000; Bontempo & D’Augelli, 2002; Faulkner & Cranston, 1998; Garofalo et al., 1998; Robin et al., 2002). Other studies have used older adolescent samples recalling victimization when they were in high school (D’Augelli et al., 2002), or have compared victimization in community settings (Waldo, Hesson- McInnis, & D’Augelli,
Research has not examined the relationship of school-based victimization with suicidal behavior for college-aged GLB youths.

The purpose of this study is to examine the relationship of victimization and suicidal behavior among GLB college students. There are four primary questions this study addresses: (1) What is the incidence of suicidal behavior among gay, lesbian, and bisexual college youth compared to their non-gay, lesbian, and bisexual college peers? (2) What is the relationship of victimization among gay, lesbian, and bisexual college youth compared to non-gay, lesbian, and bisexual college youth? (3) What is the relationship of the victimization of gay, lesbian, and bisexual college students to the suicidal behavior among these students? and (4) What is the mediating effect of victimization on suicidal behavior among gay, lesbian, and bisexual youth?
Chapter II: Literature Review

Youth Suicide

Suicide is the 3rd leading cause of death for youth ages 15-24, and is therefore a relevant and significant issue for those who work in mental health fields (Gould et al., 2003; McIntosh, 2006; Reynolds & Mazza, 1994; Shaffer & Pfeffer, 2001). Based on current prevalence and incidence information, every 2 hours and 11 minutes a youth under the age of 25 dies by suicide, which is about 12 per day (AAS, 2006).

Epidemiology

Suicidal behavior. Suicidal behavior encompasses four different types of interrelated behaviors: suicidal ideation, suicidal intent, suicide attempts, and death by suicide (Mazza, 2006; Reynolds & Mazza, 1994). These behaviors occur along a continuum, with suicidal ideation at one end and death by suicide at the other end (Mazza, 2006). Not every youth who is suicidal experiences all four behaviors, the prevalence of which decreases as risk increases (Mazza, 2006). The most common suicidal behaviors among adolescents are nonfatal acts of suicidal ideation and suicide attempts (McIntosh, 2000).

Operational definitions for each of these suicidal behaviors are yet agreed upon (O’Carroll, Berman, Maris, & Moscicki, 1996). For purposes of this study, each is defined separately to provide a greater understanding of what is being discussed and examined. Suicidal ideation includes thoughts and cognitions about
taking one’s life, as well as thoughts specific to the act of suicide (Reynolds & Mazza, 1994). As stated above, suicidal ideation is the first anchor on the continuum of suicidal behaviors, and is a strong predictor of future suicide attempts (Andrews & Lewinsohn, 1992). Suicidal intent refers to the motivation of a person regarding his or her wish to die, expressed both directly and indirectly through acts such as giving away possessions, writing a will, timing and isolation of an attempt, and precautions taken against discovery (Mazza, 2006; Rudd, 2000). Suicidal intent is the second marker along the continuum (Mazza, 2006). The third is suicide attempts, defined as intentional self-injurious behaviors with some intention or motive to die (Reynolds & Mazza, 1994). Some suicide attempts result in death, although most do not. Intention is a key factor among those who attempt suicide. Suicide is defined as “an act of intentional self-injury that was fatal to the individual” (Reynolds & Mazza, 1994, p. 528).

**Suicide rates.** The suicide rate in the U.S. is about average compared with other Western countries (World Health Organization, 2003). In general, suicide is higher than the national average in Western and Southern states, but lower in Midwestern and Northeastern states (McIntosh, 2006). Suicide is currently the 11th ranking cause of death nationally, but 3rd among youth ages 15-24 (McIntosh, 2006). Suicide accounts for 12.9% of all deaths in this age group, but only 1.4% of all deaths in the U.S. (AAS, 2006). In the last 60 years, suicide rates have quadrupled for males and doubled for females who are 15-24 years old.
However, since its peak in 1994, suicide rates have decreased by 28.5% (AAS, 2006). In 2004, over 4,000 youth died by suicide, about one death every two hours (McIntosh, 2006). This is approximately 10 suicides for every 100,000 youth (AAS, 2006).

The suicide rate among high school-aged youth is 8.2 per 100,000 (AAS, 2006). Among college-aged youth, the suicide rate for non-students is about twice the rate for students (Schwartz & Whitaker, 1990). It is estimated that more than 1,000 suicides occur on college campuses annually (AAS, 2006). The authors of a large scale study of Big Ten university campuses found an overall student suicide rate of 7.5 per 100,000 (Silverman, Meyer, Sloane, Raffel, & Pratt, 1997). The highest number of suicides occurred among students 20-24 years old, and among graduate students. In 1998, suicide was the second leading cause of death among 20-24-year-olds (AAS, 2004). Ten to 15% of suicide attempters will later die by suicide (Maris, 1992).

*Suicide attempt rates.* For every death, there are approximately 100-200 youth who attempt suicide (McIntosh, 2006). In the 12 months preceding the nationwide 2003 Youth Risk Behavior Survey, 16.9% of high school youth had seriously considered suicide, 16.5% had made a suicide plan, 8.5% had attempted suicide, and 2.9% had made an attempt that required treatment by a doctor or nurse (Grunbaum et al., 2004). Within a typical high school classroom of 30 students, it
is estimated that one male and two females have made a suicide attempt within the past year (AAS, 2006).

College students show similar levels of suicide attempt rates. Studies at universities indicate that over 43% of college students experience suicidal ideation, 24% have thought about attempting suicide while in college, 9.5% have seriously considered attempting suicide within the last year, 8.3% have made a suicide plan, 5% have attempted suicide while in college, and 1.5% have attempted suicide within the past year (AAS, 2006; Furr, Westefeld, McConnell, & Jenkins, 2001; Kisch, Leino, & Silverman, 2005; Rudd, 1989; Westefeld et al., 2005).

Methods of suicide. The most common method for suicide is use of firearms (McIntosh, 2000). In 2004, 49% of those aged 15-24 who died by suicide used firearms (Centers for Disease Control and Prevention [CDC], 2007). The prevalence rates of other methods were 35% for suffocation, 8% for poisoning, and 3% for falls (CDC, 2007). Suffocation is defined as a blockage of the airway caused by hanging or a plastic bag over the head, or by lack of air in a closed place (Vyrostek, Annest, & Ryan, 2004). Poisoning encompasses injection, ingestion, or inhalation of drugs or other chemicals (Flanagan & Rooney, 2002). The implementation of state child access prevention laws requiring safe storage of firearms is associated with a modest reduction of suicide among 14-17-year-old youth (Webster, Vernick, Zeoli, Manganello, 2004). Between 1992 and 2001, there has been a decrease in the number of suicides by firearms for 15- to 19-year-
olds. However, there has been an increase in the number of suicides by suffocation (CDC, 2004).

Methods for suicide attempts. No official national statistics are collected for suicide attempts. However, common methods for youth in research studies are drug overdose, carbon-monoxide poisoning, self-cutting, and hanging (Beautrais, Joyce, & Mulder, 1996; McIntosh, 2000; Pfeffer et al., 1991).

Descriptive Characteristics of Adolescent Suicidal Behavior

Sex. Among adolescents, there are a greater number of males who die by suicide than females (AAS, 2006). Males ages 15-19 are 3.6 times more likely than females to die by suicide, and males ages 20-24 are 5.8 times more likely than females to die by suicide (AAS, 2006). For both the years 2001 and 2002, 86% of suicides among youth ages 15-24 were committed by males, with slight decreases to 85% in 2003 and 83% in 2004 (Anderson & Smith, 2003; CDC, 2007). Among college students, females have suicide rates about half those of male students, yet interestingly, female graduate students do not differ from male graduate students regarding their suicide rates (Silverman et al., 1997). In 2004, of the 49% of youth ages 15-24 who died by firearms, 90% were male (CDC, 2007). Of the 35% who died by suffocation, 80% were male. Firearms and suffocation combined account for 86% of the total male suicide, but only 71% of the total female suicides. For females, suffocation was the most commonly used method (42%). An additional 18% of the female suicides consisted of poisoning.
In addition to sex differences in rates of suicide, there are also sex differences in suicide attempt rates. For every male who attempts suicide, approximately three females attempt (McIntosh, 2006). According to the 2003 Youth Risk Behavior Survey, high school females reported considering attempting suicide, making a specific plan, and attempting suicide more than their male peers (Grunbaum et al., 2004). Responses to the 2000 National College Health Assessment Survey indicate that significantly more females seriously consider attempting suicide than males, although for this sample there was no significant difference in the numbers of students who reported attempting suicide (Kisch et al., 2005).

The discrepancy between deaths and attempt rates can be explained by sex-related method preferences, with females favoring less lethal methods such as overdoses, and males favoring more violent and deadly methods such as guns and hanging (Gould et al., 2003; McIntosh, 1992). In 2001, of all self-harm injuries that were not fatal, 1% were attempts by suffocation, and less than 1% were attempts by firearms (Vyrostek et al., 2004). Poisoning accounted for 63% of the nonfatal self injuries, and cut/piercing accounted for 26%. Different theories for this paradox suggest that cultural expectations about suicidal behavior and sex provide scripts that serve as a model for suicide (Canetto & Sakinofsky, 1998). Males associate firearms with masculinity and efficiency, whereas females prefer drugs or poison for their painlessness and lack of messiness (McIntosh, 1992). A
study of suicide attempters ages 13-24 indicated that twice as many females as males attempted suicide by overdose, and that only males attempted by carbon monoxide poisoning and hanging (Beautrais et al., 1996).

*Ethnicity.* A second descriptive characteristic by which to examine adolescent suicidal behavior is ethnicity. In 2004, American Indians and Alaska natives had the highest suicide rates among youth ages 15-24, with an age-adjusted rate of 21 deaths per 100,000 youth (CDC, 2007). White youth had the second highest rate (10.92), followed by Latino/a (7.90) and Black (7.17) youth, with Asian/Pacific Islanders (6.06) having the lowest suicide rate. Between 1992 and 2001, there has been a significant decrease in suicide rates among both White and Black males (Bridge, Barbe, & Brent, 2005). Among college students, relative to their campus representation, the majority of suicides occur among White students (Silverman et al., 1997).

Among White, Black, and Latino/a youth ages 15-24, firearms were the most frequent method of suicide in 2004, followed by suffocation and poisoning (CDC, 2007). For American Indian, native Alaskan, and Asian/Pacific Islander youth, however, suffocation was the most frequent method, followed by firearms and poisoning. For White males, there was a significant decrease (6.6%) in the percentage of annual suicides by firearms between 1992 and 2001 (Bridge et al., 2005). However, there was a significant increase (3.2%) in the percentage of
suicides by suffocation, mostly due to hanging. Black males also have shown a significant decrease (10.2%) in the percentage of annual suicides by firearms.

Differences among ethnicities also have been found for suicide attempt rates. Of suicide attempts among high school youth in the 12 months prior to the administration of the national 2003 Youth Risk Behavior Survey, Latina females had the highest rates of attempts and the highest rates of attempts requiring medical attention. However, information regarding American Indians and Alaskan natives was not collected (Grunbaum et al., 2004). Analyses of data from the 1995 Massachusetts Youth Risk Behavior Survey found Latino/a ethnicity to be a significant predictor of female but not male suicides (Garofalo et al., 1999).

Risk Factors

A review of the suicide literature shows that there is no single predictor of suicide. In fact, one third of youth who attempt suicide are unable to describe any precipitating factor (Beautrais, Joyce, & Mulder, 1997). Among those who can, common risk factors include interpersonal problems, relationship breakups, and financial difficulties (Beautrais et al., 1997). Researchers have grouped youth suicide risk factors into seven categories: prior attempts, psychopathology, cognitive and personality factors, family characteristics, adverse life circumstances, socio-environmental factors, and biological factors (Gould et al., 2003; Grosz, Zimmerman, & Asnis, 1995; Pfeffer, 1988).
**Prior attempt.** A prior suicide attempt is the strongest predictor of both future attempts and eventual death by suicide (Lewinsohn, Rohde, & Seeley, 1994; Stoelb & Chiriboga, 1998). A history of suicide attempts is also associated strongly with current suicidal thinking (Brent, Baugher, Bridge, Chen, & Chiappetta, 1999; Groholt, Ekeberg, Wichstrom, & Haldorsen, 1997; Roberts, Roberts, & Chen, 1998; Shaffer et al., 1996; Swahn & Potter, 2001). Among those who die by suicide, 30-40% made at least one previous attempt (Maris, 1992). Past attempts remains a primary risk factor even when settings, age groups, impairment levels, and other covariates are controlled (Joiner et al., 2005). In a longitudinal study of 133 adolescent suicide attempters during a 6-8 year follow up period after initial suicidal behavior, over 30% attempted suicide, with 50% of the attempters making multiple attempts during the period (Pfeffer et al., 1991).

**Psychopathology.** Psychopathology is a significant risk factor for suicidal behavior, with at least 90% of youth who have attempted suicide having had at least one major psychiatric disorder (Beautrais, 2000; Beautrais et al., 1996; Brent, 1995; Brent et al., 1988; Crowell et al., 2005; Groholt et al., 1997; Mazza & Reynolds, 2001; Rich, Sherman, & Fowler, 1990; Shaffer, Garland, Gould, Fisher, & Trautman, 1988). The most prevalent psychiatric conditions are depression and other mood/affective disorders (Brent, 1995; Gould et al., 2003). Numerous studies have found mood or affective disorders to be associated with suicidal behavior, and adolescents who have attempted suicide are seven times more likely
to have a mood disorder compared to those who have not attempted suicide (Beautrais, 2003; Brent et al., 1999; Brent et al., 1988; Esposito, Spirito, Boergers, & Donaldson, 2003; Pfeffer et al., 1991; Shaffer et al., 1996).

Major depression is the single most significant risk factor for suicide among adolescents (Brent et al., 1993; Mazza & Reynolds, 1998; Reifman & Windle, 1995). Past or current major depression is also strongly associated with suicidal ideation, a history of attempts, and death by suicide (Boergers, Spirito, & Donaldson, 1998; Cole, 1989; Conner, Duberstein, Conwell, Seidlitz, & Caine, 2001; Dori & Overholser, 1999; Groholt et al., 1997; Lewinsohn et al., 1994; Pinto & Whisman, 1996; Rich et al., 1990; Roberts et al., 1998; Swahn & Potter, 2001). Spirito, Valeri, Boergers, and Donaldson (2003) found that when measured with family functioning, hopelessness, and mood regulation, depressed mood at baseline was most strongly associated with continued suicidal ideation and reattempt for a group of 58 adolescent suicide attempters.

Bipolar spectrum disorders also confer significant risk for adolescent suicide (Brent et al., 1993). When comparing 27 adolescents who died by suicide to 56 suicidal psychiatric inpatients who had either seriously considered or attempted suicide, a diagnosis of bipolar disorder was the risk factor most prevalent among those who had died by suicide (Brent et al., 1988).

Substance abuse and dependence are also associated with suicidal behavior, and are commonly comorbid with other psychiatric disorders in suicidal
adolescents (Brent, 1995; Gould et al., 1998; Groholt et al., 1997; Rich et al., 1990; Shaffer et al., 1996). In fact, substance use disorders (SUDs) are most significant as risk factors when comorbid with mood disorders (Brent et al., 1993). Substance abuse/dependence is a particular risk factor for older male adolescents (Brent et al., 1999; Shaffer et al., 1996). A study of 1,285 randomly selected youth ages 9-17 revealed that SUDs independently differentiated suicide attempters from ideators (Gould et al., 1998). Psychological autopsy, reconstructing circumstances in victim’s lives through interviews with family and friends, and toxicological reports of adolescents who die by suicide indicate that almost half have substance use problems and die under the influence of alcohol (Groholt et al., 1997; Rich et al., 1990). Alcohol consumption, use, and/or abuse are a significant risk factor for adolescent suicidal behavior (Adcock, Nagy, & Simpson, 1991; Reifman & Windle, 1995). Recent drunkenness remains significantly associated (OR = 2.2) with suicidal ideation and attempts even after adjusting for the presence of a depressive, anxiety, and disruptive behavior disorders (King et al., 2001).

An additional psychiatric disorder that confers risk factor for suicidal behavior is conduct disorder (Brent et al., 1993; Esposito et al., 2003; Groholt et al., 1997; Ruchkin, Schwab-Stone, Koposov, Vermeiren, & King, 2003). Studies indicate that selected characteristics and actions that are common to conduct disorder are risk factors for adolescent suicidal behavior, including impulsivity,
physical fights, and aggression (Conner et al., 2001; Gould et al., 1998; King et al., 2001).

Other psychiatric disorders that pose risk for suicidal behavior among adolescents are anxiety disorders including panic attacks (Conner et al., 2001; Gould et al., 1998; Khan, Leventhal, Khan, & Brown, 2002; Pinto & Whisman, 1996) and posttraumatic stress disorder (Mazza, 2000; Mazza & Reynolds, 1999). In addition, eating disorders (Stein, Lilienfeld, Wildman, & Marcus, 2004), obsessive compulsive disorder (Apter et al., 2003), and schizophrenia symptoms predict suicidal intent (Mazza & Reynolds, 2001). Among a sample of 348 adolescent psychiatric inpatients, suicidal ideating adolescents with obsessive compulsive disorder were less likely to make a suicide attempt compared to suicidal ideators not diagnosed with obsessive compulsive disorder, unless they had comorbid bipolar disorder (Apter et al., 2003). Although schizophrenia symptoms are high among adolescents demonstrating suicidal behavior (Mazza & Reynolds, 2001), formal diagnoses of schizophrenia are infrequent (Brent, 1995; Pfeffer et al., 1991; Shaffer et al., 1988).

*Cognitive and personality factors.* Cognitive biases can be defined as “the ways in which individual perceive, mentally organize, and understand life experiences” (Beautrais, Joyce, & Mulder, 1999, p. 37). One important cognitive risk factor for suicide is hopelessness, a state of negative expectancies that may be more strongly related to suicidal intent and suicidal behavior than depression
(Cole, 1989; Mazza & Reynolds, 1998; Weishaar & Beck, 1992). Hopelessness is therefore viewed as a primary risk factor for suicide (Stoelb & Chiriboga, 1998). In a review of the empirical literature on psychological vulnerability, hopelessness was consistently associated with suicide (Conner et al., 2001). Numerous other studies have also indicated that suicidal adolescents experience higher levels of hopelessness than nonsuicidal adolescents (Beautrais et al., 1999; Boergers et al., 1998; Dori & Overholser, 1999; Esposito et al., 2003; Pinto & Whisman, 1996; Spirito et al., 2003; Swahn & Potter, 2001). Asarnow and Guthrie (1989) found that the severity of suicidal tendencies was associated with hopelessness, and that suicidal ideation was associated with hopelessness but not with depression. In contrast, suicide attempts were associated with both hopelessness and depression.

Self-esteem, a second cognitive factor, is an evaluative component of self-concept and can have a profound influence on a person's cognitions, emotions, and responses to stressful life events (Overholser, Adams, Lehnert, & Brinkman, 1995). Low self-esteem is a strong predictor of future suicide attempts (Dieserud, Roysamb, Ekeberg, & Kraft, 2001; Lewinsohn et al., 1994; Overholser et al., 1995). Low self-esteem is also associated with hopelessness, which is correlated with suicidal intent, ideation, and attempts, and with suicidal ideation after controlling for depression (Kazdin, French, Unis, Esveldt-Dawson, & Sherick, 1983; Vella, Persic, & Lester, 1996). Fergusson, Beautrais, and Horwood (2003) used data gathered from a 21-year longitudinal study of 1,265 New Zealand youth
to examine factors that predict vulnerability to suicidal behavior and found that low self-esteem contributed to suicidal responses.

Other cognitive and personality factors that place adolescents at risk for suicidal behavior include perfectionism (Boergers et al., 1998), problem solving deficits (Carris, Sheeber, & Howe, 1998), negative views of the self (Pinto & Whisman, 1996), self-criticism, novelty seeking, and neuroticism (Enns, Cox, & Inayatulla, 2003; Fergusson et al., 2003). Beauprais et al. (1999) found that hopelessness, neuroticism, and external locus of control were significant risk factors for serious suicide attempts. When these three factors were controlled statistically, self-esteem, extraversion, and impulsiveness were no longer associated with suicide attempt risk. In the case of impulsive suicide attempts, it is inadequate control of aggressive impulses, not depression, that is the greater indicator of risk (Simon et al., 2001). Inability to regulate emotions and modulate behavior is also associated with suicidal ideation and attempts, even when controlling for mood disorders (Esposito et al., 2003; Spirito et al., 2003).

*Family characteristics.* Family characteristics such as a family history of suicidal behavior, parental psychopathology, parental divorce, and impaired parent-child relationship can increase risk for suicidal behavior in adolescents (Gould et al., 2003; Pfeffer, 1988), as can family dysfunction and parental abuse and neglect (Reynolds & Mazza, 1994). A family history of suicidal behavior increases the risk of suicide beyond risk attributable to psychological disorders.
alone (Gould, Fisher, Parides, Flory, & Shaffer, 1996). A familial link has been found between parental suicidal behavior (ideation and attempts) and offspring suicidal behavior (Goodwin, Beautrais, & Fergusson, 2004). A family history of psychopathology, especially affective disorders, is a significant risk factor for adolescents (Brent et al., 1988; Brent et al., 1999). Asarnow and Carlson (1988) found that a child's perceived family support differentiated between suicide attempters and non-attempters with 88% accuracy. Among 8-13-year-old psychiatric inpatients, suicidal behavior was higher among children who perceived their families to be high in conflict and low in cohesiveness and control (Asarnow, Carlson, & Guthrie, 1987). Maladaptive parenting and childhood maltreatment are associated with interpersonal difficulties, which are associated with the development of suicidal behavior (Johnson et al., 2002). Other family characteristics that are risk factors for suicidal behavior or that contribute to other factors associated with suicidal behavior include family and childhood adversity (Beautrais, 2000; Beautrais et al., 1996), family rigidity (Carris et al., 1998), perceived family functioning (Garber, Little, Hilsman, & Weaver, 1998), poor family environment, low parental monitoring (King et al., 2001), and being born to a teenage mother (Lewinsohn et al., 1994).

Adverse life circumstances. Adverse life circumstances encompass risk factors such as negative and stressful life events, which are associated with adolescent suicidal behavior (Beautrais, 2000; Beautrais, 2003; Gould et al., 1996;
Gould et al., 2003; Mazza & Reynolds, 1998; Rich et al., 1990; Roberts et al., 1998). Adverse life circumstances also include a lifetime history of abuse (Brent et al., 1999) and childhood sexual abuse (Fergusson et al., 2003), both which are related to adolescent suicidal behavior. Beutrais et al. (1997) found that interpersonal loss, conflict, and legal problems were risk factors for serious suicide attempts after controlling for life event measures and antecedent social, family and personality factors.

*Socio-environmental factors.* Socio-environmental factors including socioeconomic status, social and educational disadvantage, school problems, and contagion are situational risk factors for adolescent suicidal behavior (Beautrais, 2000; Beautrais et al., 1996; Gould et al., 2003; Stoeb & Chiriboga, 1998). Beutrais (2003) found that among 60 adolescents under the age of 25 who had died by suicide, a lack of formal education was a main characterization. School problems accounted for increased risk of suicide beyond the risk attributable to psychological disorders (Gould et al., 1996). Social support was a significant factor relating to suicidal ideation among females, with lack of social support being related to more severe suicidal behavior (Mazza & Reynolds, 1998). Vulnerability to suicidal behavior was increased by negative peer affiliations and social disengagement (Conner et. al., 2001; Fergusson et al., 2003). Adolescents who live in neighborhoods with weak social networks report high levels of hopelessness, which is associated with suicidal behavior (Perez-Smith, Spirito, &
Boergers, 2002). The availability of firearms within the environment is also a risk factor, as indicated by psychological autopsy (Brent et al., 1988; Brent et al., 1999).

**Biological factors.** Certain genetic and neurobiological factors also confer risk for suicidal behavior among youth (Gould et al., 2003; Grosz et al., 1995; Pfeffer, 1988). Glowinski et al. (2001) found that among 3,416 female adolescent twins, suicide attempts were influenced by genetic factors, even after controlling for comorbid psychopathology. A trend toward higher concordance was found among monozygotic than dizygotic twins for both suicidal ideation and attempts (Cho, Guo, Iritani, & Hallfors, 2006). Sex-specific heritability also was found for some suicide risk factors, with a larger percentage of variance explained by heritability among female twins for depression, aggression, and cigarettes, and among males for alcohol use and binge drinking.

Studies of both the frontal cortices of those who died by suicide, and the spinal fluid of suicide attempters suggest that a reduction in the overall density of serotonin receptors and low levels of 5-hydroxyindoleacetic acid, a 5-HT metabolite, are associated with suicidal behavior (Gould et al., 2003; Pfeffer, 1988). Pandey et al. (2002) examined levels of 5-HT2A receptors in the prefrontal cortex, hippocampus, and nucleus accumbens of 15 teenagers who died by suicide and 15 matched controls. A greater number of 5-HT2A receptors were found in the prefrontal cortices and hippocampi of suicide victims. A diathesis-stress model
proposes neurobiological correlates of the involvement of the serotonergic and noradrenergic systems, including the ventromedial prefrontal cortices (Mann, 2003). Among adults, suicidal behavior is associated with low levels of the dopamine metabolite homovanillic acid (HVA) (Engstrom, Alling, Blennow, Regnell, & Traskman-Bendz, 1999), lower cerebrospinal fluid levels of 5-hydroxyindolacetic acid (5-HIAA) (Placidi, et al., 2001), increased cortisol secretion (van Heeringen, Audenaert, Van de Wiele, & Verstraete, 2000), and lower levels of monoamine oxidase (MAO-A) (Du et al., 2002). These findings have not been confirmed among adolescents.

*Gay, Lesbian, and Bisexual Youth*

Gay, lesbian, and bisexual adolescents are vulnerable to the same suicide risk factors as all other youth, but due to their sexual identity, they are also susceptible to additional risk factors specific to their minority identification (Lebson, 2002; Russell & Joyner, 2001). The term sexual minority is commonly used to refer to youth whose “romantic, intimate, or sexual desires and behaviors, or identities are inconsistent with dominant expectations for heterosexuality” (Consolacion, Russell, & Stanley, 2004, p. 201). It is a pervasive assumption held by society that all children are heterosexual, and heterosexism, the belief in heterosexuality as normal and a key source of social reward, is an accepted aspect of society, and an identity from which deviation from can be considered abnormal (Flowers & Busto, 2001; Savin-Williams, 1995). Adolescents who identify as
GLB may find that “by simply being themselves, they are sexual outcasts in the eyes of their families, peers, and culture” (Savin-Williams, 1995, p.165).

Sexual minority students, those identifying as GLB, transgender, and/or questioning, comprise at least 4.5% of the high school student population (Reis & Saewyc, 1999). Students in grades 7-12 who report some form of same-sex or both-sex romantic attraction increase this estimate to about 12% (Russell, 2006). Among adolescent females ages 15-19, 10.6% report same-sex sexual experiences, and 4.5% of males report same-sex sexual experiences (Mosher, Chandra, & Jones, 2005). It is estimated that by college, up to 15% identify as nonheterosexual in their emotional and sexual attachments (D’Augelli, 1993). Adolescents self-identify as bisexual, questioning, or unlabeled more frequently than they identify as gay or lesbian, although those identifying as questioning or unlabeled typically later identify as gay or lesbian (Russell, Seif, & Truong, 2001; Ryan & Futterman, 2001). These youth face unique stressors as they proceed through sexual identity formation, and they are exposed to certain risk factors that create a greater likelihood for negative psychological effects and mental health problems (Meyer, 2003; Radkowsky & Siegel, 1997; Savin-Williams, 1995).

**Sexual Identity**

Sexual identity is “the enduring sense of oneself as a sexual being which fits a culturally created category and accounts for one’s sexual fantasies, actions, and behaviors (Savin-Williams, 1995, p. 166). It is comprised of four components:
biological sex, gender identity, social sex-role, and sexual orientation (Shively & De Cecco, 1977). Biological sex is based upon chromosomal configuration, internal reproductive structures, external genitalia, and hormonal secretions. Gender identity is a part of an individual's self-identification; it is a personal conviction of being male or female and is not necessarily contingent upon biological sex. Social sex-roles are the cultural characteristics associated with being stereotypically masculine or feminine. Sexual orientation includes a person's physical preference, as well as his or her affectional preference toward other persons (Shively & De Cecco, 1977).

Sexual orientation was traditionally dichotomized as heterosexual and homosexual, although these terms are viewed as problematic in their implication of diagnosis and pathology, and do not encompass the larger array of identities that include bisexuality (Gonsiorek, Sell, & Weinrich, 1995). Currently, the terms gay, lesbian, and bisexual are used as definitions of sexual orientation (Frankowski, 2004; Safe Schools Coalition, 2004). Transgender (a person with a gender identity that is inconsistent with his or her birth sex or who expresses his or her gender in ways that contravene societal expectations: cross dressers, drag kings/queens, transsexuals, people who are androgynous, Two-Spirit people, and people who are bigendered or multi-gendered, as well as people who do not identify with any label) is the term frequently used to define a gender identity that does not conform
to expectations given biological sex (Frankowski, 2004; Safe Schools Coalition, 2004).

**Stressors**

Gay, lesbian, and bisexual identity formation is associated with life challenges and stressors due to cultural sanctions and the associated risk that heterosexual adolescents do not encounter during their identity formation (D’Augelli, 1996; D’Augelli, 1998). There are several important stressors such as awareness, isolation, and disclosure (D’Augelli, 1996; D’Augelli, 2003).

**Awareness.** The first of the stressful developmental challenges of sexual identity formation for GLB youth is the awareness of their sexual orientation (D’Augelli, 2003). The primary understanding of being gay is described as a feeling of being different and that something is “wrong” (Flowers & Buston, 2001, p. 54). This initial awareness occurs for the majority of GLB youth between the ages of 8-10 for males and 8-11 for females, although is it not self-labeled as sexual orientation for about another 4-6 years (D’Augelli, 2002; D’Augelli, Grossman, & Starks, in press; D’Augelli, Hershberger, & Pilkington, 1998). Over half of these youth have someone in their lives suggesting to them that they are different, with males significantly more likely to report having been viewed as different by others (D’Augelli et al., in press). Beginning at around age eight, a significantly greater percentage of females than males consider themselves to be gender atypical, with acquaintances and some family members calling the females
“tomboys,” and the males “sissies” (D’Augelli et al., in press). Over half of these children are considered gender atypical by their parents, and a quarter of them are sent to counseling by their parents due to their gender atypical behavior by age 13. Most children initially experience presumed heterosexuality, which becomes questionable as feelings of attraction to same-sex peers, same-sex sexual fantasies, or engagement in same-sex sexual behavior emerge (Rotheram-Borus & Fernandez, 1995). Awareness of same-sex attraction often occurs around age 12 for males and around age 13 for females (D’Augelli et al., in press). Puberty accelerates the intensity of awareness of same-sex attractions, increasing the tension between emerging biological drives and the need to channel such eroticism into socially sanctioned heterosexual scripts (D’Augelli, 1998).

Isolation. Feelings of being different often lead to self-reflection and inner-conflict, which in turn can elicit feelings of alienation and isolation (Flowers & Buston, 2001). This isolation occurs cognitively, socially, and emotionally (Martin & Hetrick, 1988). Cognitive isolation occurs as a result of a lack of appropriate and accurate information available to most youth regarding sexual identity formation and sexual orientation, as well as a lack of GLB role models (Martin & Hetrick, 1988; Radkowsky & Siegel, 1997). Most youth are only aware of a small number of celebrities who proudly proclaim their sexual minority status, and most schools fail to teach that many prominent authors being studied were involved in same-sex sexual relationships, or mention the historical significance of
the gay rights movement (D’Augelli, 1996; Grossman & D’Augelli, 2004). When GLB issues are raised in the classroom, it is usually in the negative context of AIDS among gay males (D’Augelli, 1996). Thus, adolescents are given very little opportunity to understand what it means to be a healthy GLB individual (Martin & Hetrick, 1988).

This lack of information can lead to social isolation, and to confusion with other social roles, such as being a Christian or a patriotic citizen (Martin & Hetrick, 1988). Also, there is an abundance of negative information regarding gay and lesbian people, as well as perceptions of discrimination and violence (Rotheram-Borus & Fernandez, 1995). This stigmatization of GLB people may cause the adolescent to engage in avoidant coping strategies, such as inhibiting behaviors or interests, limiting exposure to the opposite sex, avoiding exposure to information about homosexuality, assuming anti-gay positions, establishing heterosexual involvements, and escapism (Radkowsky & Siegel, 1997). Given these feelings of isolation and identity confusion, it is common for many youth to continue living with a straight identity, sometimes adopting internalized homophobia (Flowers & Buston, 2001; Radkowsky & Siegel, 1997). Internalized homophobia, taking on the negative cultural attitudes toward gay, lesbian, and bisexual individuals, can lead to self-doubt, self-hatred, and low self-esteem (D’Augelli et al., in press; Grossman & D’Augelli, 2004). There is a feeling of dissociation of the self, making it hard to reflect on abilities and accomplishments.
(Drescher, 2004). This denial of self-identity increases social isolation, which is then exacerbated by fears of being discovered, which in turn produces constant self-monitoring, a feeling of a need to hide (Martin & Hetrick, 1988). These thoughts of being alone and having no one to share feelings with then creates a sense of emotional isolation (Martin & Hetrick, 1988).

**Disclosure.** Disclosure, defined as telling oneself and others of one’s sexual identity, is referred to as “coming out” (Drescher, 2004). It is “the most commonly shared cultural experience that defines the modern gay identity” (Drescher, 2004, p. 5). An individual begins by coming out to his or her self—a subjective process of self-reflection and inner conflict—by recognizing previously unacceptable feelings (Drescher, 2004; Flowers & Buston, 2001). Self-identification usually precedes any sexual contact and is not the onset of sexual behavior (D’Augelli, 2006). These youth self-identify as GLB between the ages of 13-16, depending upon the age of their first awareness (D’Augelli, 2002; D’Augelli et al., in press). Males self-identify at younger ages than females, and spend significantly more time self-identified but non-disclosed than females (D’Augelli, 2002; D’Augelli, 2006; D’Augelli et al., 2005). Gay, lesbian, and bisexual adolescents may spend 30-40% of their lives aware of their sexual orientation before sharing it with anyone (D’Augelli, 2003; D’Augelli et al., in press).
The goal of disclosure is to reach a point of wholeness and integrity, and disclosure to others can also be used as a means to help resolve any residual internal conflict (Flowers & Buston, 2001). Gay, lesbian, and bisexual youth who have GLB and transgender role models disclose their sexual orientation to others at significantly younger ages than those who do not (Grossman & D’Augelli, 2004). Most GLB youth first disclose their sexual identity to a friend, with a significantly greater percentage of youth disclosing to a female friend rather than a male friend (D’Augelli et al., in press; D’Augelli et al., 1998). The average age of disclosure to friends is around ages 14-16, and disclosure to family occurs between the ages of 15-18, with most adolescents disclosing first to their mothers (D’Augelli et al., 2005; D’Augelli et al., in press; D’Augelli & Hershberger, 1993; D’Augelli, et al., 1998). Most youth, fearful of rejection from their parents upon disclosure, engage in a monitoring process seeking parental indicators of homophobia (D’Augelli, 2005). Perceived maternal attitude is a critical factor for whether a youth will come out to his or her family (D’Augelli et al., 1998). Gay, lesbian, and bisexual college students living in residence halls face the additional stressful negotiation of coming out to their roommates (Evans & Broido, 1999). Disclosure, the final step in sexual identity formation, causes these youth to be vulnerable to certain risk factors for negative psychological effects (Rakowsky & Siegel, 1997).
Additional Risk Factors

In addition to the unique stressors that GLB youth face in their sexual identity formation, they face further risk once they have identified as GLB (Pilkington & D’Augelli, 1995). These risk factors include peer rejection, family conflicts, lack of school support, and both verbal and physical victimization (D’Augelli, 2006; Gay, Lesbian, and Straight Education Network, 1999; Pilkington & D’Augelli, 1995; Reis & Saewyc, 1999).

Peer rejection. Due to disclosure of their sexual orientation, about 44% of gay males, and 54% of lesbians report having lost at least one friend (Pilkington & D’Augelli, 1995; Ryan & Futterman, 2001). Significantly more males expect a negative reaction from their best heterosexual friend compared to females (D’Augelli, 2006). However, significantly more females than males fear losing additional friends. Studies among heterosexual college students indicate that males have significantly more homophobic attitudes than females. Attitudes regarding lesbians are less negative than attitudes regarding gay males, and almost one-third of freshman hold the attitude that the university would be a better place without gay and lesbian students (D’Augelli, 1993).

Family conflict. Parents’ reactions to their child’s sexual orientation can lead to family conflict and problems for adolescents (Radkowsky & Siegel, 1997). Many parents undergo a grieving process that involves shock, denial, anger, guilt, and a feeling of loss when their child discloses that he or she is gay, lesbian, or
bisexual. Gender atypical GLB adolescents are more likely to have parents who are aware of their sexual orientation prior to disclosure, engaging in verbal victimization and antigay comments (D’Augelli, Grossman, & Starks, 2005). Only one-third of GLB adolescents describe disclosing their sexual orientation to their family members as not being a problem (Pilkington & D’Augelli, 1995). Full acceptance of a child’s sexual orientation is reported by only 48% of mothers, 35% of fathers, and 57% of siblings (D’Augelli, 2006; D’Augelli et al., 1998). One-quarter of mothers and 37% of fathers are intolerant and rejecting (D’Augelli, 2006). Compared with mothers of heterosexual females, mothers of sexual minority females rate their relationships with their daughters more negatively (Russell et al., 2001).

Gay, lesbian, and bisexual youth are at increased risk for being harmed at home compared to heterosexual youth (Reis & Saewyc, 1999). Among GLB youth, 30% fear verbal abuse at home, and 13% fear being physically attacked at home (D’Augelli, 2002; D’Augelli, 2006). Verbal abuse by mothers is reported by 12-33% of GLB youth (D’Augelli, 2006; D’Augelli et al., 1998). Seven percent of these youth report verbal abuse by their fathers (D’Augelli, 2006). Mothers verbally abuse sons and daughters at similar rates, but more fathers verbally abuse sons than daughters (D’Augelli, 2006). Physical abuse by the family has been reported by up to 10% of gay, lesbian, and bisexual youth (Pilkington & D’Augelli, 1995). There is a greater frequency of family abuse toward females
than males (Pilkington & D’Augelli, 1995). Most physical abuse occurs with mothers attacking their lesbian daughters and brothers attacking their gay brothers (D’Augelli et al., 1998). When such violence occurs, many of the adolescents run away from home, while others are expelled from the house (Martin & Hetrick, 1988).

*Lack of school support.* Half of the 42 largest school districts in 32 states receive a failing grade for providing a comfortable and safe climate for sexual minority youth (Gay, Lesbian, and Straight Education Network, 1999). Fifty-eight percent of sexual minority high school students do not feel safe in schools because they are GLB or transgender, and 38.2% do not feel comfortable talking to school staff about GLB or transgender issues (Gay, Lesbian, and Straight Education Network, 1999). Half of GLB high school students report that at least one person in the school setting is not supportive of their sexual orientation, and of those students, more than half report that non-supportive person to be a teacher, administrator, or other staff (Jordan, Vaughan, & Woodworth, 1997). For college students, residence halls can expand the lack of school support into their living environment, with some residence halls deficient in a sense of community or in preventing active hostility (Evans & Broido, 1999). Gay, lesbian, and bisexual college students also face a lack of support in intercollegiate athletics, with some universities failing to create a supportive team environment (Wolf-Wendel, Toma, & Morphew, 2001).
Victimization. Victimization due to sexual orientation is experienced by over 80% of gay, lesbian, and bisexual youth between the ages of 14-21 (D’Augelli, 2006; Pilkington & D’Augelli, 1995). Victimization, as previously defined, encompasses the acts of verbal insults, threat of attack, vandalism, objects being thrown, being chased or followed, being spat upon, assault, assault with a weapon, and sexual assault (Pilkington & D’Augelli, 1995). Victimization of these youth is often repetitive, with over half of GLB youth being verbally assaulted three or more times, 14% receiving three or more threats of violence, and 7% being assaulted multiple times (D’Augelli, 2003; D’Augelli, 2006). In one-third of victimization incidents, high school students report that adult witnesses do not help (Gay, Lesbian, and Straight Education Network, 1999). The earlier GLB students are aware of and identify their sexual orientation, and the more open they are about their sexual orientation or display of gender atypical behavior, the more they are victimized (D’Augelli, 2006; D’Augelli et al., 2002). The greater the number of same-sex sexual partners for males, the higher the frequency of victimization (DuRant, Krowchuk, & Sinal, 1998).

Gay, lesbian, and bisexual high school students are more likely than their heterosexual peers to report having their property damaged or deliberately stolen, with 13-17% of gay, lesbian, and bisexual college students reporting personal property damage (D’Augelli, 1989; D’Augelli, 1992; Faulkner & Cranston, 1998; Garofalo et al., 1998). These adolescents, particularly those identifying as
bisexual, are threatened, injured, and involved in fights significantly more often than their heterosexual peers (Faulkner & Cranston, 1998; Robin et al., 2002).

Fear is a component of victimization, with over half of college students fearing for their personal safety, 38% of the GLB high school students fearing verbal abuse, and 28% fearing physical attack (D’Augelli, 1989; D’Augelli, 2006; D’Augelli et al., 2002). This victimization goes unreported by 79-94% of the victims due to feelings of helplessness, embarrassment, minimization of the experience, or not knowing how or where to report the incident (D’Augelli, 1989; D’Augelli, 1992; Pilkington & D’Augelli, 1995). Almost half of GLB adolescents modify their behavior and “act straight in public” to avoid victimization (Pilkington & D’Augelli, 1995, p. 45), avoid locations where other GLB individuals may be located, or avoid any association with known gay males or lesbians (D’Augelli, 1989). In order to disguise their sexual orientation, the majority of college-aged males, use opposite sex pronouns to refer to their male dating partners, pretend to date women, avoid discussing their personal lives, or introduce their partner as their friend (D’Augelli, 1991).

*Verbal victimization.* Homophobic statements rank highest in prevalence for abusive language among adolescents—higher, than racial slurs, sexist comments, and all categories of profanity—and are rated as less serious by students than either racist slurs or other taboo slang (Thurlow, 2001). Students become aware of homophobic remarks in the primary grades, with their usage
peaking in eighth and ninth grades (Plummer, 2001). When asked to estimate the number of verbal harassment incidents that occurred in high school, some GLB youth respond, ‘too many to count’ and ‘thousands’ (D’Augelli et al., 2002, p.163). The word “faggot” is reported to be heard more often than the morning announcements, and the word “dyke” is used in a derogatory way at least once per day (Gay, Lesbian and Straight Education Network, 2004; Jordan et al., 1997). Ninety-four percent of high school students report hearing “that’s so gay” used as a putdown, 99.4% report regularly hearing homophobic remarks from other students, 36.6% report hearing homophobic remarks from faculty or school staff, and 86% report that anti-gay harassment is rarely or never confronted by school officials (Gay, Lesbian, and Straight Education Network, 1999; Peters, 2003). It is reported that teachers who hear homophobic remarks fail to respond 97% of the time (Parents, Families and Friends of Lesbians and Gays, 2000).

Verbal insults are experienced by at least 80% of GLB high school students, with 45.9% experiencing it daily (Gay, Lesbian, and Straight Education Network, 1999; Pilkington & D’Augelli, 1995). Among gay and lesbian college students, 75-77% report verbal abuse, with 49% experiencing insults more than once (D’Augelli, 1989; D’Augelli, 1992). Sexual harassment is reported by 73% of GLB and transgender college students, versus 61% of heterosexual students, with this harassment occurring more frequently than for heterosexual students (American Association of University Women, 2006).
Physical victimization. In addition to verbal victimization, GLB youth are also subject to physical victimization (Garofalo et al., 1998). One-quarter to 44% of GLB high school and college youth report being threatened with physical violence (D’Augelli, 1989; D’Augelli, 1992; D’Augelli, 2006; D’Augelli et al., 2002; Gay, Lesbian, and Straight Education Network, 1999; Pilkington & D’Augelli, 1995). Among gay and lesbian college youth, 7% report being threatened with physical violence more than once (D’Augelli, 1992). Males are threatened with violence significantly more often than females, and also have a significantly higher prevalence of lifetime victimization than females (D’Augelli, 2006). Nearly half of all verbal harassment occurrences result in a physical fight (Jordan et al., 1997). Among GLB youth ages 14-21, 22% report objects being thrown at them, 16% report sexual assault, 15% report physical assault, and 6% report assault with a weapon (D’Augelli, 2006). Other examples of physical assault include being urinated upon, being ejaculated upon, receiving death threats, having clothes pulled off, and being gang raped (Gay, Lesbian, and Straight Education Network, 1999). Gay and lesbian college students also report physical assault, and 22% report being chased by other students (D’Augelli, 1992).

Gay, lesbian, and bisexual high school youth are at an increased risk for being threatened or assaulted compared with their heterosexual peers (Reis & Saewyc, 1999). Thirty-three percent of gay, lesbian, and bisexual students are threatened with a weapon at school, compared with 7% of their heterosexual peers
(Garofalo et al., 1998). Nearly 20% of gay, lesbian, and bisexual high school students have been in a physical fight resulting in medical treatment, compared with 4% of their heterosexual peers, and they are more likely to experience, witness, or perpetrate extreme forms of violence involving knives and guns (Garofalo et al., 1998; Russell, Franz, & Driscoll, 2001).

Negative Psychological and Life Effects

Gay, lesbian, and bisexual individuals have higher prevalence rates of mental health disorders and are at increased risk of internalizing and externalizing problems compared with the general population (Elze, 2002; Lock & Steiner, 1999; Meyer, 2003). These youth also report significantly more psychological symptoms than do non-gay, lesbian, and bisexual adolescents (D’Augelli, 2002). Homeless GLB adolescents are more likely than homeless heterosexual adolescents to have spent time in a locked mental health facility (Noell & Ochs, 2001). White same-sex attracted female adolescents have the most compromised mental health compared with other White adolescents (Consolacion et al., 2004).

Depression. Gay, lesbian, and bisexual youth are at an increased risk for major depression (D’Augelli & Hershberger, 1993; Fergusson, Horwood, & Beautrais, 1999; Noell & Ochs, 2001; Radkowsky & Siegel, 1997). Compared to their heterosexual peers, GLB adolescents have significantly higher self-reported rates of depression and hopelessness (Safren & Pantalone, 2006). They are also at risk for symptoms of major depression, including pervasive loss of pleasure,
feelings of sadness, change in appetite, sleep disturbance, slowing of thoughts, lowered self-esteem, self-criticism, self-blame, guilt, and feelings of failure (Martin & Hetrick, 1988). For males, both same- and both-sex attraction predict depression (Russell, 2006). Females who report same- and both-sex attraction also report depression, however, females with both-sex attraction and relationships report the highest levels of depression (Russell, 2006). Gay, lesbian, and bisexual college students are also at risk for depression (D’Augelli, 1993).

Anxiety. In addition to depression, GLB youth are also at an increased risk for generalized anxiety disorder and associated symptoms of anxiety (D’Augelli & Hershberger, 1993; Fergusson et al., 1999). For males, same- and both-sex attraction predict anxiety (Russell, 2006). Females who report both-sex attraction and relationships report elevated levels of anxiety (Russell, 2006). Among GLB adolescents, females report more symptoms of somatization, obsessive-compulsive behavior, and anxiety than males (D’Augelli, 2006). Gay, lesbian, and bisexual adolescents have significantly higher self-reported social anxiety compared to their heterosexual peers (Safren & Pantalone, 2006).

Externalizing disorders. Although not reported as frequently as internalizing problems for GLB adolescents, some studies have indicated that these youth are at risk for externalizing disorders (Elze, 2002; Fergusson et al., 1999). Negative family attitudes about sexual orientation and perceptions of negative community environment are associated with externalizing problems for GLB
youth (Elze, 2002). These adolescents are also at an increased risk for conduct disorder (Fergusson et al., 1999).

Substance abuse. Gay, lesbian, and bisexual youth are at an increased risk for substance abuse and/or dependence, nicotine dependence (Blake et al., 2001; Fergusson et al., 1999; Jordan, 2000; Radkowsky & Siegel, 1997; Reis & Saewyc, 1999). When compared to their heterosexual peers, GLB high school youth are more likely to report using alcohol, marijuana, and cocaine before age 13 (Garofalo et al., 1998). Gay, lesbian, and bisexual youth are more likely to use tobacco, especially lesbian youth, and to report recently using smokeless tobacco (D’Augelli, 2004; Garofalo et al., 1998). These youth are also 9 times more likely to report using alcohol daily, 19 times more likely to report using cocaine on 10 or more occasions in the past month, 7 times more likely to report having injected an illegal drug, and 5 times more likely to report using other illegal drugs. These youth also have an increased lifetime frequency of using crack cocaine and inhalants (Faulkner & Cranston, 1998; Garofalo et al., 1998). Gay, lesbian and bisexual high school students are at elevated risk for using club drugs in the previous year, such as crystal methamphetamine, ecstasy, and ketamine, compared to their heterosexual peers (Lampinen, McGhee, & Martin, 2006). Bisexual high school youth are three to six times more likely than their heterosexual peers to use cocaine (Robin et al., 2002). Females reporting both-sex attractions and relationships are elevated risk for substance use and abuse, and for males, both-sex
attraction is associated with frequent smoking, problems caused by drinking, and marijuana and other drug use (Russell, 2006). Verbal and physical abuse is related to substance abuse problems, and GLB high school youth who report high levels of at-school victimization also report higher levels of substance use than heterosexual youth who are victimized at school (Bontempo & D’Augelli, 2002; Savin-Williams, 1994). A greater number of same-sex sexual partners for males is correlated with higher frequency of drug use at school (DuRant et al., 1998). Gay, lesbian, and bisexual college students suffer from more alcohol dependence symptoms than do heterosexual college students (DeBord, Wood, Sher, & Good, 1998). Homeless GLB adolescents are more likely than homeless heterosexual adolescents to report recently using amphetamines and injected drugs (Noell & Ochs, 2001).

*Low self-esteem.* In addition to higher risk for psychological disorders, GLB youth face greater risk for cognitive and personality factors associated with psychological problems, such as low self-esteem (Hershberger et al., 1997). Disclosure of sexual orientation and its associated ramifications, including victimization, is associated with lower self-esteem for GLB adolescents (Hershberger et al., 1997; Jordan et al., 1997; Waldo et al., 1998). Parental reaction to disclosure is correlated with self-esteem (D’Augelli, 2006). Rejection from peers and family can also lead to a diffuse sense of identity and low self-esteem (Radkowsky & Siegel, 1997). Females who report same- or both-sex
attraction or relationships have lower self-esteem than females who report only other-sex attraction or relationships (Russell, 2006).

*Sexual risk behaviors.* Gay, lesbian, and bisexual youth also exhibit more sexual risk behaviors (Saewyc, 2006). These adolescents report an earlier initiation of sexual intercourse than their heterosexual peers, have a greater number of sexual partners, and have a greater probability of becoming pregnant or getting someone pregnant (Blake et al., 2001; Garofalo et al., 1998; Lock & Steiner, 1999; Reis & Saewyc, 1999; Saewyc, 2006). These youth are less likely to engage in contraceptive practices than are their heterosexual peers (Saewyc, 2006). When compared with their heterosexual peers who are also victimized, GLB youth who report high levels of at-school victimization report higher levels of sexual risk behavior (Bontempo & D’Augelli, 2002).

*School problems.* Gay, lesbian, and bisexual youth also suffer at school (Reis & Saewyc, 1999). Chronic stress from verbal and physical harassment is associated with school problems for these youth (Radkowsky & Siegel, 1997; Savin-Williams, 1994). According to the U.S. Department of Health and Human Services, the drop-out rate for sexual minority high school students is three times the national average (Weiler, n.d.). Gay, lesbian, bisexual, and transgender high school students who report significant verbal harassment are twice as likely to report that they do not intend to go to college, and their GPAs are significantly lower than those of non-harassed GLB and transgender students (Gay, Lesbian and
Straight Education Network, 2003). Family, teacher, and peer relations are related to negative school attitudes and significantly lower GPAs for sexual minority youth, with relationships with teachers being the main contributor (Russell et al., 2001). Fearful for their safety at school, 22% of GLB students skip school, compared with 4.2% of their heterosexual peers (Faulkner & Cranston, 1998; Garofalo et al., 1998; Reis & Saewyc, 1999).

**Legal problems.** A second negative life effect for GLB youth involves legal problems (Savin-Williams, 1994). Most of these legal problems involve substance abuse, prostitution, street hustling, truancy, and running away from home (Radkowsky & Siegel, 1997; Savin-Williams, 1994). A high proportion of homeless adolescents are GLB, these youth engaging in prostitution or survival sex (Noell & Ochs, 2001; Saewyc, 2006).

**Health problems.** Gay, lesbian, and bisexual youth also face negative health effects (Reis & Saewyc, 1999). Compared with their heterosexual peers, GLB adolescents are at significantly higher risk for poor general health maintenance, and more likely to vomit or taking laxatives to lose weight (Lock & Steiner, 1999; Reis & Saewyc, 1999). Bisexual youth are three to six times more likely than their heterosexual peers to vomit or take laxatives to control their weight (Robin et al., 2002).

**Correlates to psychological and life effects.** There is a significant mental health impact from victimization upon anxiety, depression, sexual abuse trauma,
and sleep disturbances (D’Augelli et al., 2002). Verbal abuse is related to posttraumatic stress symptoms and accounts for 9% of the variance in mental health symptoms (D’Augelli et al., 2002). For lesbian and bisexual female youth, mental health symptoms are associated with victimization, fears about future attacks, support from parents, and loss of friendships due to sexual orientation (D’Augelli, 2003). Gay, lesbian, and bisexual youth who report losing friends report more mental health symptoms than GLB youth who do not report having lost friends (D’Augelli, 2002). Having a small group of knowing friends but hiding one’s sexual orientation from parents, siblings, and teachers reinforces marginality and increases stress while decreasing coping efforts (D’Augelli, 1998). Rejection by both parents is associated with significantly more mental health problems for GLB youth than if both parents are accepting or when one is accepting (D’Augelli, 2002). Feeling afraid, different, separate, alienated, alone, or rejected is significantly higher than the normative high school mean for gay and lesbian youth (Jordan et al., 1997). These feelings are positively correlated with the frequency of peer and teacher use of derogatory words, a lack of teacher discipline when peers used derogatory terms, running away from home, and a decline in academic performance. Other factors important to internalizing and externalizing problems for GLB adolescents are discomfort about sexual orientation, perceptions of greater stigmatization, a negative community environment, gay-related stressful events, the severity of victimization in school
and community, family mental health problems, and the adolescent’s appraisal of stressful events (Elze, 2002).

*Gay, Lesbian, and Bisexual Youth Suicide*

*Epidemiology*

*Rates.* In the U.S. government *Report of the Secretary’s Task Force on Youth Suicide*, it was originally projected that gay youth are 2-3 times more likely to attempt suicide than their heterosexual peers, and that they comprise 30% of annual youth suicides (Gibson, 1989 as cited in Remafedi et al., 1991). Although there are no data on the sexual orientation of those who have died by suicide, further research regarding attempts upheld that estimate, with data from the 1987 Minnesota Adolescent Health Survey indicating that one of every three GLB youth, ages 15 and older reports at least one suicide attempt (CDC, 2007; Saewyc, Bearinger, Heinz, Blum, & Resnick, 1998).

Other studies examining suicidal behavior of GLB youth report similar findings. Proctor and Groze (1994), using a sample of 221 GLB youth attending youth groups, found that 66.1% had attempted suicide. In a study of 137 gay or bisexual males between the ages of 14-21 recruited from various social locations, 30% reported at least one suicide attempt, with half of the attempters reporting more than one attempt (Remafedi et al., 1991). Among 108 college gay males in gay specific organizations and groups, 55% reported suicidal ideation, and suicide attempts were reported by 20% (Schneider, Farberow, & Kruks, 1989).
D’Augelli and Hershberger (1993) recruited 194 GLB youth ages 15-21 who were attending social and recreational programs in community centers to assess their mental health problems. Their study revealed that 59% had thoughts of killing themselves, and that 42% had attempted suicide, with the majority of the attempters having made more than one attempt, ranging from 1 to 15 events (D’Augelli & Hershberger, 1993; Hershberger et al., 1997). Those who identified as bisexual rather than gay or lesbian were five times more likely to have made multiple attempts. Drug overdose was the most used method in this sample (70%), followed by cars (7%), knives (7%), razor blades (6%), alcohol (4%), guns (2%), and miscellaneous other methods (4%) (D’Augelli & Hershberger, 1993; Hershberger et al., 1997).

D’Augelli et al. (2001), using a community based sample of 350 GLB adolescents, ages 14-21 attending GLB social and recreational groups, found that 42% of the males and 25% of the females had sometimes or often thought of suicide during their lifetimes. Among these youth, 33% reported at least one suicide attempt. Suicidal ideation and suicide attempts were expressed by the youth to be related to their sexual orientation. High school youth reported significantly more lifetime suicidal ideation than the college youth ($t = 1.84, p < .05$). High school youth also reported significantly more suicidal ideation in the last year ($t = 3.19, p < .01$). The mean age for attempting suicide was 15.5, and ingestion and self-laceration accounted for 80% of the attempts.
A recent study of 361 GLB youth ages 15-19 attending programs in community-based organizations, indicated fewer suicide attempts (17%) than reported in previous research (D’Augelli et al., 2005). The authors examined the medical seriousness of the suicide attempts and discovered that 39% required emergency medical attention, and 18% required some medical attention.

Comparative rates. There are significant differences in the percentage of suicidal ideation, intent, and attempts for GLB youth compared to non-gay, lesbian, and bisexual youth (McDaniel, Purcell, & D’Augelli, 2001). Van Heeringen and Vincze (2000) administered a questionnaire to 215 GLB youth from a holiday camp, and 189 matched heterosexual controls. Gay, lesbian, and bisexual youth had double the risk of suicidal ideation than their heterosexual peers.

Based on data collected from the 1995 Massachusetts Youth Risk Behavior Survey, of students reporting a suicide attempt in the 12 months prior to the survey, 35.3% were GLB, and 9.9% were non-gay, lesbian, or bisexual, and this was a statistically significant difference (Garofalo et al., 1998; Garofalo et al., 1999). Compared to their heterosexual peers, sexual minority high school youth were four to six times as likely to have made a suicide attempt in the past 12 months that resulted in treatment by a doctor or a nurse, based on data from the 1995 Seattle and 1995 Massachusetts Youth Risk Behavior Surveys (Reis & Saewyc, 1999).
Among older adolescents, college students identifying as GLB or transgender during the Spring 2000 National College Health Assessment Survey were 2.6 times more likely than their heterosexual peers to have seriously considered attempting suicide (Kisch et al., 2005). Garcia, Adams, Friedman and East (2002) also found significantly more suicidal ideation among GLB college students (71%) than among heterosexual students (36%). Among a group of 104 adolescents ages 16-21, GLB youth had higher past suicidality than their heterosexual peers, with sexual orientation accounting for 19% of the variance, \( (F(1, 100) = 23.78, p < .0001) \) (Safren & Pantalone, 2006).

In a longitudinal study of 1,265 children in New Zealand from birth to age 21, 2.8% of participants were classified as GLB (Fergusson et al., 1999). Data were collected between the ages of 14-21 on suicidal ideation and attempts. By age 21, 67.9% of the GLB cohort had reported suicidal ideation, compared to 28.0% of the heterosexual cohort. Among the GLB participants, 32.1% had reported at least one suicide attempt, compared to 7.1% of heterosexuals.

Data from the National Longitudinal Study of Adolescent Health, a representative study of 11,940 adolescents in grades 7-12, revealed that 7% reported having same-sex romantic attractions (Russell & Joyner, 2001). Youth with same-sex orientation were at higher risk for suicidal thoughts, were significantly more likely to report suicidality, and were more than two times more likely to attempt suicide than their heterosexual peers.
Descriptive Characteristics

Sex. Differences between males and females in suicidal behavior have been found among GLB youth, compared with heterosexual males and females (D’Augelli et al., 2005; Garofalo et al., 1999). D’Augelli et al. (2005) sampled 361 GLB youth ages 15-19 in examining mental health issues for this population. Results showed that more females (21%) than males (13%) made serious suicide attempts, $\chi^2(1) = 3.88, p < .05$.

In the 1987 Minnesota Adolescent Health Survey, administered to 36,254 youths in grades 7-12, suicide attempts were reported by 28.1% of bisexual/gay males, 20.5% of bisexual/lesbian females, 4.2% of heterosexual males, and 14.5% of heterosexual females (Remafedi, French, Story, Resnick, & Blum, 1998). Gay or bisexual males reported more suicide attempts than heterosexual males (OR = 7.10, $p = .0015$). The 1995 Massachusetts Youth Risk Behavior Survey, administered to 4,159 9th through 12th grade students, indicated even higher numbers. Gay or bisexual males who completed the survey were 6.5 times more likely to report a suicide attempt than heterosexual males, and lesbian or bisexual females were 2.02 times more likely to report a suicide attempt than heterosexual females (Garofalo et al., 1999).

In contrast to the high school findings comparing male and female suicidal behavior between GLB students and their heterosexual peers, a study of 138 college students indicated no significant differences among the gay and bisexual
males and the heterosexual males (Garcia et al., 2002). Lesbian and bisexual college females were significantly more likely to report past suicidal ideation than were heterosexual females.

Sex specific analyses of the 1995 Massachusetts Youth Risk Behavior Survey revealed that sexual orientation was a significant predictor of suicide for males, but not for females (Garofalo et al., 1999). Studies have shown that more gay and bisexual male suicide attempters (29-59%) related their suicide attempts to their sexual orientation than females (12-38%). Males also reported that they would like to be dead because of their sexual orientation (D’Augelli et al., 2005; D’Augelli et al., 2001). Conversely, van Heeringen and Vincke (2000) found a significantly increased risk of attempted suicide associated with sexual orientation in females (OR = 6.25, p < .001). Other studies have shown that higher numbers of same-sex sexual partners predict higher frequencies of suicide attempts for males. For females, same-sex sexual contact is associated with increased odds for future suicide attempts (DuRant et al., 1998; Wichstrom & Hegna, 2003).

*Ethnicity.* There is limited research on suicidal behavior differences among GLB youth of varying ethnicities. White and African American youth defined as same-sex-attracted report more suicidal thoughts than Hispanic/Latino or Asian/Pacific Islander same-sex-attracted youths according to data collected from the Add Health program of high school students (Consolacion et al., 2004). Among gay male college students, non-White males showed a greater trend toward
suicidal ideation than White males. This effect was accounted for predominantly by Latino males (Schneider et al., 1989).

Disclosure and Suicide

Self-disclosure. Disclosing one’s sexual identity to self and others is associated with suicidal ideation and attempts (Bagley & Tremblay, 2000). In comparing GLB youth who have attempted suicide versus those who have not, suicide attempters reported becoming aware of their sexual orientation and adopting a sexual minority identity at a younger age, and therefore had a greater period of personal awareness that may have involved confusion and distress at an age when coping skills had not yet fully developed (D’Augelli & Hershberger, 1993; Remafedi et al., 1991; Schneider et al., 1989).

One study that illustrates this finding was conducted by Schneider et al. (1989), who sampled 108 gay male college students. They found that suicide attempters reported struggling with their sexual identity earlier in adolescence, and related suicide attempts to intrapersonal problems, such as not feeling good about themselves as a gay male, as well as fears of rejection.

Hershberger and D’Augelli (1995), using data from a previously collected sample of GLB youths ages 15-21 from lesbian and gay community centers, analyzed mental health and suicidality through multiple regression analyses. Self-acceptance was the single largest predictor of mental health and suicide. Among 137 gay and bisexual male suicide attempters ages 14-21, 75% reported that the
first suicide attempt followed self-labeling (Remafedi et al., 1991). D’Augelli et al. (2001) found that among the 350 GLB suicide attempters in their sample, also ages 14-21, 54% made their first suicide attempt before disclosing their sexual orientation to others, with 27% making their first attempt during the same year as disclosure to others.

*Coming out to others.* Suicide attempters are more “out” and report losing friends due to their sexual orientation (D’Augelli & Hershberger, 1993; Hershberger et al., 1997). Among a sample of 194 GLB adolescents from community youth groups, those who had lost friends following disclosure were three times more likely to report a past suicide attempt than those who had not lost friends (Hershberger et al., 1997). Peers in general are not characterized as forgiving or empathic toward gay and lesbian youth who engage in suicidal behavior following coming out, holding the belief that suicidal behavior following disclosure is weak and unsound (Cato & Canetto, 2003a; Cato & Canetto, 2003b). A study including eight gay college males who had attempted suicide around the time of their coming out found that six reported rejection by at least one main support person (Schneider et al., 1989).

Parent relations also are predictive of suicidal behavior among GLB youth (Proctor & Groze, 1994). D’Augelli et al. (2001) found that parental reactions of intolerance or rejection to disclosure were associated with suicide attempts. From the sample of 194 GLB adolescents, those who had told a close sibling of their
sexual orientation were 50% more likely to report a suicide attempt (Hershberger et al., 1997). Among the community-based sample of 361 GLB youth, parental psychological abuse and parental discouragement of gender atypical behavior were characteristic of suicide attempters (D’Augelli et al., 2005). In this study, gay-related suicide attempters distinguished from non-gay-related attempters by being more open earlier with their family about being GLB and being called “sissy” or “tomboy” by their parents.

Victimization and Suicide

Verbal victimization. Verbal abuse and harassment are associated with suicide in GLB youth (Bagley & Tremblay, 2000; Savin-Williams, 1994). Suicidal thinking is significantly correlated with verbal abuse ($r = .18, p < .001$) and threats of violence ($r = .14, p < .001$) (D’Augelli, 2006). Using logistic regression analyses to evaluate the relationship of certain variables to suicide among the previously referred to sample of 194 GLB youth, Hershberger et al. (1997) found verbal abuse to be a significant predictor of suicide attempts (OR = 1.22, $p < .001$, $r = .23$). Lifetime gay-related verbal abuse distinguishes GLB suicide attempters who relate their attempt to their sexual orientation from those who do not relate their attempt to sexual orientation (D’Augelli et al., 2005).

Physical victimization. Suicidal thinking is also predicted by physical and sexual assault (D’Augelli, 2006). Hershberger and D’Augelli (1995) found that family support and self-acceptance interacted with victimization to influence
mental health and suicide among 165 15-21-year-old GLB youth. Further analyses indicated that physical assaults (OR = 1.48, \( p < .001, r = .24 \)), sexual assaults (OR = 2.07, \( p < .001, r = .24 \)), and property damage and being chased (OR = 1.18, \( p < .001, r = .23 \)) were predictors of suicide attempts among the sample of GLB youth (Hershberger et al., 1997). Waldo et al. (1998), using a sample of 248 adolescent GLB students found that victimization led to lowered self-esteem, which elicited heightened psychological distress and suicide.

Representative sample studies. Russell and Joyner (2001), using the National Longitudinal Study of Adolescent Health, a nationally representative study of 11,940 adolescents in grades 7-12, found victimization for all students to be associated with suicide (OR = 1.57 for suicidal thoughts and OR = 2.40 for suicide attempts). Associations between victimization and suicide were also found using data provided by various Youth Risk Behavior Surveys (Faulkner & Cranston 1998; Garofalo et al., 1999; Reis & Saewyc, 1999). Hierarchical logistic regressions with data from 3,365 respondents to the 1995 Massachusetts Youth Risk Behavior Survey found higher rates of victimization to be an independent predictor of suicide attempts (OR = 2.06, \( p < .001 \)) (Garofalo et al., 1999). Students reporting in the 1997 Wisconsin Youth Risk Behavior Survey that they had been harassed because someone thought that they were gay were 4 times more likely to report having made a suicide attempt in the past 12 months that required treatment by a doctor or nurse (Reis & Saewyc, 1999).
In the 1995 Seattle Youth Risk Behavior Survey, sexual minority students who had been harassed because someone thought they were gay were 1-1/2 times more likely that non-harassed sexual minority students to report having seriously considered suicide and having made a suicide plan in the past 12 months (Reis & Saewyc, 1999). Seattle heterosexual youth who reported being harassed because someone thought they were gay were 1-1/2 times more likely than their non-harassed sexual minority peers to have reported seriously considering suicide and making a suicide plan in the past 12 months (Reis & Saewyc, 1999). Heterosexual youth who were harassed because someone thought they were gay were also five times more likely to have made a suicide attempt requiring treatment by a doctor or a nurse (Reis & Saewyc, 1999).

Bontempo and D'Augelli (2002) examined responses from the 1995 Massachusetts Youth Risk Behavior Survey and the 1995 Vermont Youth Risk Behavior Survey and found that GLB youth who reported high levels of at-school victimization reported higher levels of suicidality compared to their heterosexual peers who also reported high levels of at-school victimization. Gay, lesbian, and bisexual students who reported low levels of at-school victimization reported levels of suicidality similar to their heterosexual peers who had also reported low levels of at-school victimization. These results offer evidence that suicide differences among gay, lesbian, and bisexual high school students are mediated by victimization at school.
Summary

Gay, lesbian, bisexual, transgender, and questioning students comprise at least 4.5% of the high school student population, and possibly up to 15% of the college student population (D’Augelli, 1993; Reis & Saewyc, 1999). These youth are vulnerable to the same suicide risk factors that all adolescents face, but some of these risk factors are exacerbated, plus there are additional risk factors specific to being GLB (Lebson, 2002). Gay, lesbian, and bisexual adolescents face the unique stressors of their awareness of being different, cognitive and social isolation, and the disclosure of their sexual orientation to self and others as they proceed through sexual identity formation. Once they disclose their sexual orientation to others, they are exposed to peer rejection, family conflict, lack of school support, and victimization. These risk factors create a greater likelihood for negative psychological effects and mental health problems, including internalizing disorders, externalizing disorders, substance abuse, low self-esteem, sexual risk behaviors, school problems, legal problems, health problems, and suicide (Garofalo et al., 1998; Meyer, 2003; Radkowsky & Siegel, 1997; Savin-Williams, 1995).

Because significant differences are consistently reported between the percentage of suicide attempts made by GLB youth and the percentage of suicide attempts made by non-GLB youth (Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Robin et al., 2002), this population is at additional risk for suicidality. Two
consistent factors specific to suicide among GLB adolescents are stress related to
disclosure and victimization, both verbal and physical (Hershberger, Pilkington, &
D’Augelli, 1997). Although research with this population in high school has
indicated that victimization mediates suicidal behavior differences among GLB
youth (Bontempo & D’Augelli, 2002), it is uncertain if this relationship holds or
changes when youth enter college.

**Purpose of the Present Study**

The purpose of the present study is to examine the relationship of suicidal
behavior and victimization among GLB college students. Studies that have
examined the relationship between suicidal behavior and victimization have used
public high school samples, typically through data collected from the CDC Youth
Risk Behavior Survey (Bagley & Tremblay, 2000; Garofalo et al., 1998), or from
older adolescent samples recalling victimization specific to when they were in high
school (D’Augelli et al., 2002). Research has not examined the relationship of
school-based victimization to suicide for college-aged GLB youth, and therefore
little is known about the occurrence of victimization for college students, or its
impact on suicidal behavior.

**Hypotheses**

*Question #1.* What is the incidence of suicidal behavior among GLB
college youth compared to their non-GLB college peers?
Hypothesis #1. It is hypothesized that GLB college students will have a significantly higher percentage of suicidal ideation and attempts than their non-GLB college peers. This hypothesis is based on research findings of additional risk factors for suicide specific to GLB youth (Bagley & Tremblay, 2000; D’Augelli & Hershberger, 1993; Hershberger et al., 1997; Reis & Saewyc, 1999). It is also based on previous research demonstrating higher rates of suicide among GLB adolescents when compared with their heterosexual peers, as reviewed extensively above (Fergusson, et al., 1999; Frankowski, 2004; Russell and Joyner, 2001).

Question #2. What is the relationship of victimization among GLB college youth compared to non-GLB college youth?

Hypothesis #2. It is hypothesized that GLB college students will be victimized more than non-GLB college students. This hypothesis is based on previous research demonstrating that GLB high school students experience high rates of victimization ranging from verbal abuse to physical assaults, and that they often experience this victimization repeatedly (D’Augelli, 2003; D’Augelli, 2006; Garofalo et al., 1998). Research has also indicated that GLB high school students are victimized more often than non-GLB high school students (Hershberger & D’Augelli, 1995; Hershberger et al., 1997; Reis & Saewyc, 1999).

Question #3. What is the relationship of the victimization of GLB college students to the suicide rates among these students?
Hypothesis #3. It is hypothesized that the victimization of GLB college students will be related directly to suicidality. This hypothesis is based on research indicating that verbal abuse, physical assault, sexual assault, property damage, and being chased to be significant predictors of suicide attempts among GLB youth (Hershberger et al., 1997). Among GLB high school youth, victimization increases the likelihood of a suicide attempt (Garofalo et al., 1999; Reis & Saewyc, 1999).

Question #4. What is the mediating effect of victimization on suicidal behavior among GLB youth?

Hypothesis #4. Victimization will mediate the relationship between sexual identity and suicidal behavior among GLB youth. This hypothesis is based on research that demonstrated that victimization mediates suicidal behavior among gay, lesbian, and bisexual high school students (Bontempo & D’Augelli, 2002).
Chapter III: Methodology

Participants

Participants were 528 University of Washington undergraduates with a mean age of 19.32 years (SD = 1.53) that ranged from 14-31. There were 332 females (62.9%), 194 males (36.7%), 1 transgender student (0.2%), and 1 student who identified as gender queer (0.2%). Students were recruited through the psychology department’s subject pool and the Q Center on campus. The subject pool consists of undergraduate students in beginning level psychology classes, such as Psychology 101. Through the subject pool, students participate voluntarily in departmental research for extra credit in their classes. The Q Center is an on-campus location providing a variety of services to GLB, transgender, questioning, and allied students.

Measures

Sexual minority status. Sexual minority status was defined along the three dimensions of identity, behavior, and orientation. Identity, the complex integration of cognitive, emotional, and social factors that comprise a person’s sense of self, was measured using wording similar to the 1997 Massachusetts Youth Risk Behavior Survey: “Which of the following best describes you, (a) heterosexual (straight), (b) gay or lesbian, (c) bisexual, (d) not sure” (Reis & Saewyc, 1999). Also consistent with wording used in the 1997 Massachusetts Youth Risk Behavior Survey, behavior was measured by the question, “The
person(s) with whom you have had sexual contact is (are): (a) I have not had sexual contact with anyone, (b) female(s), (c) male(s), (d) females and males” (Reis & Saewyc, 1999). Orientation refers to a consistent pattern of sexual feelings, affection, attraction, thoughts, fantasies, emotional, and romantic feelings. This was measured by the question, “What best describes who you ever felt sexually attracted to, (a) only to males, never to females, (b) more often to males, but at least once to a female, (c) about equally often to males and females, (d) more often to females, but at least once to a male, (e) only to females, never to males, (f) never attracted to anyone at all” (Skegg, Nada-Raja, Dickson, Paul, & Williams, 2003).

**Suicidal behavior.** To remain consistent with the Youth Risk Behavior Survey questions, suicidality was measured by four questions assessing thoughts, plans, and attempts (CDC, 2005). (1) During the past 12 months, did you ever seriously consider attempting suicide? (2) During the past 12 months, did you make a plan about how you would attempt suicide? (3) During the past 12 months, how many times did you actually attempt suicide? (4) If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

The CDC examined the psychometric properties of the Youth Risk Behavior Survey questionnaire and found adequate to excellent reliabilities (kappa = 61%-100%), and no statistically significant differences between the first and
second administrations of the 1991 version (Brener et al., 2004). A test-retest reliability study of the 1999 version of the survey found some significant differences between items. However, the suicide items remained consistent (kappa = 52.3%-74.3%) with no statistical differences (Brener et al., 2002). The CDC determined that although self-report measures can be affected by cognitive and situational factors, such factors do not threaten the validity of self-reports, and no universal standards exist to validate the behavior (Brener et al., 2004). Overall, evidence shows that students take the survey seriously and respond honestly (Hillard, 1996). Measures of suicidal ideation and behavior are frequently conducted via self-report (Adcock et al., 1991; Cole, 1989; Mazza & Reynolds, 1998; Rudd, 1989).

Victimization. Questions from the Youth Risk Behavior Survey (CDC, 2005; Reis & Saewyc, 1999) were also used to assess victimization. There were 13 questions that examined the frequency of specific events on and off campus, with item anchors assigned to specific numerical values (e.g., 1 = none, 2 = 1 time, 2 = 2 or 3 times ... 8 = 12 or more times). Higher scores represent greater frequency of victimization. The questions addressed various aspects of victimization. Examples include, “In the past 12 months: How many times have you been made fun of because of your sexual orientation? How many times have you been threatened or hurt because someone thought you were gay, lesbian, or bisexual? How many times have you had property deliberately damaged or
stolen?” Follow-up questions in the second version of the survey asked for specific information regarding location of victimization, whether victimization was reported, if social support was sought, and what kinds of support were helpful.

The psychometrics of this scale are based on the 1999 YRBS data. Test-retest reliabilities of the 5-item victimization scale were moderate, (kappa= 40.6%-64.4%), and two items exhibited significant differences between testing sessions (Brener et al., 2004; Brener et al., 2002). Validity for the victimization scale is based on the CDC’s determination that self-reports are considered valid measures of behavior, and no universal standards of validation exist (Brener et al., 2004).

Procedure

University of Washington Human Subjects approval was received for this study. Approval from the University of Washington Psychology Department Human Subject Pool was also received, as well as approval from the Q Center Coordinator. As part of the structure for Psychology 101 classes, students were given the option to receive extra credit through their participation in departmental research studies. Students who chose to participate in the study signed up for a specified time to complete the self-report survey under the supervision of the investigator. For the Q Center, the survey was left in the waiting lounge with a sign inviting students to participate in completing the survey, with a sealed receptacle for students to place the survey in when complete. An information statement regarding the purpose and benefits of the study, and any risks, stress, or
discomfort that may be encountered was provided to the students prior to the administration of the questionnaire.

The original questionnaire consisted of 26 questions and took less than 10 minutes to complete. Due to a desire to gain more information from students, 60 questions were added to the survey. The revised version took less than 30 minutes to complete. In order to be certain that answers were consistent across students’ year in school and time the survey was administered, the instructions stated that Freshman and new students were to only assess their time at the University of Washington. The last page consisted of a list of possible resources, including national 24-hour suicide hotlines, GLB hotlines, and various campus resources. Participants were encouraged to take this page with them.

All answers were anonymous; the students did not put their name, nor any other identifying information on the questionnaire. Identifying information regarding participation for extra credit was kept confidential within the psychology departments’ records and was not linked to the questionnaire. The questionnaire was kept in a locked filing cabinet for which only the researchers have access.

Data Analyses

Due to small numbers of participants in the GLB and queer groups, and because researchers have historically clustered these groups for analyses (Reis & Saewyc, 1999; Remafedi et al., 1991), GLB and queer students were combined to form one group (GLBQ) for statistical analyses. It cannot be assumed that
students experiencing same-sex attractions or behavior will always self-identify as GLB (Russell, 2006). Researchers have excluded from heterosexual groups students who self-identified as heterosexual, but also report same-sex sexual experience (Bontempo & D’Augelli, 2002). For this reason, a distinct group was created for those students who self-identified as heterosexual, but reported same-sex attraction or same-sex behavior (SSA/SSB). Although the Not Sure group contained a small number of participants, this group was not collapsed into another group nor removed from analyses. Research has highlighted questioning students to be distinct from other sexual minority groups, and it was therefore of interest to analyze the Not Sure group separately (Hollander, 2000). Thus, analyses were conducted with four groups for sexual minority status, (1) heterosexual, (2) heterosexual with same-sex attraction and/or behavior, (3) GLB and queer, and (4) not sure.

Researchers have also divided groups primarily on same-sex sexual behavior, regardless of self-identification (Faulkner & Cranston, 1998). Separate analyses were conducted with students divided simply into two groups, those reporting other-sex attraction or behavior exclusively, and those reporting same-sex attraction or behavior, Group 1 versus the other three groups in the previous analyses. This type of comparison allowed for greater statistical power because data were not dispersed across three groups.
Analyses for this study were conducted using the Statistical Package for the Social Sciences for Windows, Release 11.5 (SPSS, 2002). Chi-square tests of association were used to examine differences in suicidal behavior among groups for both sexual identity and same- or other-sex attraction and behavior. Differences among groups for the occurrence of victimization on and off campus were examined using chi-square analyses for both sexual identity status and same- or other-sex attraction and behavior. Analyses of variance (ANOVAs) were used to examine mean levels of victimization for the groups both on and off campus. Again, analyses were conducted examining the groups based on sexual identity status and based on same- or other-sex attraction and behavior. Due to the large number of analyses increasing the probability of a Type I error, Bonferroni’s correction was applied. Follow-up post-hoc comparisons were conducted using Scheffe for across victimization groups because the group n’s were not equal. This is a conservative approach.

Logistic regression models were used to determine the main effects of the independent predictors of suicidal behavior. Logistic regression is typically used for analysis and prediction of dichotomous outcomes (Peng, Lee, & Ingersoll, 2002). Twelve main analyses were conducted, four for each of the three measures of suicidality (seriously considering attempting suicide, making a plan to attempt suicide, and attempting suicide), using sexual identity, other-sex or same-sex attraction and/or behavior, total victimization, and total on-campus victimization
as predictors. Analyses were not conducted for the fourth measure of suicidality, medically serious attempt, due to a small sample size ($n = 2$). Cross-product terms were created for sexual identity with total victimization and on-campus victimization, and for same-sex attraction and/or behavior with total victimization and on-campus victimization in order to test for interaction (moderation) effects.

Each of the logistic regressions for the three dependent variables was conducted in three steps. These steps were conducted in line with the method for determining mediation put forth by Baron and Kenny (1986). In the first step of the model, main effects were examined for two predictors. Because there were two different groups for each of the two predictors, four analyses were conducted, (1) sexual identity with total victimization, (2) same-sex attraction and/or behavior with total victimization, (3) sexual identity with on-campus victimization, and (4) same-sex attraction and/or behavior with on-campus victimization. For sexual identity, the heterosexual group was used as the comparison group. Similarly, for same-sex attraction and/or behavior, the other-sex attraction and/or behavior group was used as the comparison. Total victimization was categorized as none, low, or high victimization in order to account for numerous single episodes of victimization occurring both on and off campus. On-campus victimization was categorized as yes or no for having been victimized on-campus. Both the total victimization group and the on-campus victimization group were compared to their respective not victimized groups. The second step of the analyses examined the
unique effect of victimization with sexual identity or same-sex attraction and/or behavior in the model. For this step, sexual identity or same-sex attraction and/or behavior was entered into the model first, followed by either total victimization or on-campus victimization. The created cross product term was entered into the model for the third and final step of the analysis to examine interaction effects.
Chapter IV: Results

Descriptive Characteristics

Demographic characteristics of the sample are presented in Table 1. The majority of students were freshmen and sophomores. The age range was 14-31, with a mean age of 19.32 (SD = 1.53). There were significantly more females than males in the sample, $\chi^2 (1, N = 526) = 36.21, p < .01$. Students identifying as GLB or queer (GLBQ) comprised 7.2% of the sample. However, of the 483 heterosexual students, 79 (16.4%) reported same-sex attraction or behavior (SSA/SSB), and thus were given their own category in order to avoid any confusion and provide a clear heterosexual comparison group. Of these 79 students, 63 were female (79.7%) and 16 were male (20.3%). With these students taken into account, the number reporting same-sex attraction or behavior was 121, or 22.9% of the sample.

Suicidal Behavior

The results of the suicidal behavior frequency among the sample are presented in Table 2. Overall, 56 students (10.6%) seriously considered attempting suicide in the 12 months. The difference of proportions among the four groups was significant, $\chi^2 (3) = 19.06, p < .001$, with SSA/SSB and Not Sure having seriously thought about attempting suicide three times more often than their heterosexual peers. Table 3 presents the results of suicidal behavior by sexual identity and gender. The difference of proportions among the groups was a
statistical difference ($\chi^2(6) = 14.60, p < .05$) with females in the SSA/SSB group having seriously considered attempting suicide three times more often than the males in that group. When students were categorized based on self-reported other-or same-sex attraction and/or behavior, similar findings emerged, with same-sex students considering attempting suicide three times more often than their other-sex peers (see Table 4).

In examining more severe behavior, 42 participants (8.0%) responded that they had made a plan to attempt suicide within the past 12 months, with almost three times as many (16.7%) same-sex students making a plan compared to other-sex students (5.4%), $\chi^2(1) = 15.69, p < .001$. Twelve students (2.3%) attempted suicide within the past 12 months, with 10 (1.9%) attempting suicide once, and 2 (0.4%) making multiple attempts (2 or 3 times). Due to the small number of students reporting multiple attempts (2), the number of multiple attempts categories were combined, creating a dichotomous suicide attempt variable coded as attempt or no attempt. There was a significant difference in the proportion of students attempting suicide across the four categories, $\chi^2(3) = 12.21, p < .01$. Students who were GLBQ (2.6%) attempted suicide two times more frequently than their heterosexual peers (1.2%), and SSA/SSB students (7.6%) attempted suicide six times more frequently than their heterosexual peers. Among the two categorization analyses, there were nearly 5 times as many (5.8%) same-sex students who attempted suicide compared to other-sex students (1.2%), $\chi^2(1) =$
8.69, *p* < .01. Of the 12 suicide attempts, 2 resulted in a serious injury, poisoning, or overdose that had to be treated by a doctor or a nurse. The two medically serious suicide attempts were by SSA/SSB students.

**Victimization**

*Total victimization.* The results of victimization, both on and off campus, are presented in Table 5. The majority of students (73%- 86%) reported at least one incidence of victimization, regardless of sexual orientation. Differences among the groups were found for the total number of times victimized, number of times victimized on campus, and number of times victimized off campus. Post hoc comparisons using the Sheffe multiple pairwise comparisons test revealed that GLBQ students were victimized significantly more often, both on and off campus than their heterosexual and SSA/SSB peers (*p* < .001). Off campus, SSA/SSB students were victimized more often than their heterosexual peers (*p* < .05). When students were categorized based on self-reported other- or same-sex attraction and/or behavior, similar findings emerged, with same-sex students experiencing more victimization both on and off campus (see Table 6).

*Individual victimization questions.* The results of the victimization questions are presented in Table 7 for the heterosexual, SSA/SSB, GLBQ, and Not Sure students. Significant differences were found among the groups for being threatened off campus, *F*(3, 523) = 7.22, *p* <.001. Post hoc comparisons revealed that students in the SSA/SSB group were threatened significantly more often than
both their heterosexual and GLBQ peers. Students identifying as Not Sure reported more physical fights off campus, and more physical fights off campus requiring medical attention than their heterosexual and GLBQ peers. Being made fun of because of sexual orientation both on and off campus was reported by GLBQ students significantly more often than by the other three groups. For being threatened because of sexual orientation on campus, GLBQ students reported significantly more threats than their heterosexual peers. For being threatened because of sexual orientation off campus, significant differences were found between the SSA/SSB group ($M = 0.20$, $SD = 0.93$) and the heterosexual students ($M = 0.01$, $SD = 0.15$), but not with the GLBQ group ($M = 0.11$, $SD = 0.31$) when compared to the heterosexual students or the SSA/SSB group.

When students were categorized based on self-reported other- or same-sex attraction and/or behavior, similar findings emerged, as seen in Table 8. Same-sex students were threatened off campus significantly more often than other-sex students, $t (139.39) = -2.42$, $p < .05$. Same-sex students were made fun of because of their sexual orientation more often than other-sex students, both on, $t (131.68) = -2.87$, $p < .01$, and off campus, $t (124) = -4.07$, $p < .001$. No differences were found between groups for being threatened because of sexual orientation on campus. However, off campus same-sex students were threatened more often than other-sex students, $t (121.66) = -2.20$, $p < .05$. 
Additional information. Information provided by the 60 additional questions offer more specific detail regarding where victimization was taking place, whether it was being reported, whether students were seeking social support, and what kind of social support they found helpful. When asked how much of the time students felt unsafe or afraid on campus, most students in all four groups never or rarely reported feeling unsafe or afraid on campus. Students reported feeling unsafe or afraid off campus across all four groups. Results for these two questions are presented in Tables 9 and 10.

Questions regarding how students coped with feeling unsafe or afraid on campus were answered by 62 students. The most common answers included walking with a friend (43.5%), avoiding campus at night (21.0%), and avoiding dark areas (11.3%). Other students responded that they talk on their cell phone and/or walk fast. One gay student responded that he “man up, look straight”—meaning appear as a heterosexual male.

Twenty-six students responded to how they cope with feeling unsafe or afraid off campus. The same gay student also responded that he “man up, look straight” off campus as well. A bisexual student responded that off campus she does not show affection in public as her way of coping with feeling unsafe or afraid. One heterosexual student responded that he carries a gun. Other students reported carrying mace or pepper spray, walking fast, not going out alone at night, and avoiding dark places.
Of the 12 students who provided additional information regarding property damage on campus, two-thirds reported that the damage occurred in the dorms, fraternities, or sororities. Four students reported the incident to authorities, 3 to the police, and 1 to the sorority. Two students sought social support, both turning to their friends, which they found helpful.

For property damaged off campus, 18 students shared information. Among these 12 reported the incident, the majority to the police, and social support was sought through friends and family.

In examining specific victimization questions that related to sexual orientation, several interesting results occurred. For the question, “If while on campus you were made fun of or received offensive comments because of your sexual orientation, please indicate where this occurred,” 12 students provided this additional information. A heterosexual student responded being made fun of or receiving offensive comment at the Husky Union Building (HUB). An additional heterosexual student reported this happening in the dorm. Answers among the GLBQ students included the HUB, dorms, classrooms, street, and three students responded “everywhere.” These GLBQ students sought social support through their friends, the counseling center, and the Q Center. Being able to talk through the problem and having someone “just listening” was reported to be helpful.

Similar findings emerged when examining these items off campus. Fifteen students reported information on the question, “being made fun of or receiving
offensive comments because of sexual orientation off campus." One heterosexual student reported this happening at home, and a Not Sure student reported it with friends. Of the GLBQ students, victimization occurred in many places, including home, streets, malls, coffee shops, and bus stops. Social support was sought by 5 of the 12 students, 4 turning to friends and 1 to the Q Center. Again, being listened to was reported as helpful, as well as being reassured that a student’s response to the situation was “ok.”

In examining more serious offensive questions, two students provided additional information regarding being threatened because of sexual orientation on campus. For one student, this took place in the dorm, the other did not provide location information. Neither student reported the incident and only one sought social support but did not indicate where or to whom. Two students provided additional information regarding being threatened because of sexual orientation off campus. For one student it occurred at the mall. Neither student reported the incident nor did they seek social support.

Victimization and Suicide

Seriously considered attempting suicide. Logistic regression analyses were conducted to determine predictors of having seriously considered attempting suicide. A main effect was found for total victimization, victimization occurring both on and off campus, $\chi^2(1) = 7.22, R^2 = 0.01, p < .01$. Students who had been victimized were more than one and a half times as likely than those who had not
been victimized to have seriously considered attempting suicide in the twelve months prior to the survey, $\beta = 0.50, SE = 0.18, OR = 1.64, p < .01$. For victimization occurring on campus, there was also a main effect, $\chi^2 (1) = 6.44, R^2 = 0.01, p < .05$, with students who had been victimized on campus being twice as likely to have seriously considered attempting suicide when compared to those students who had not been victimized on campus, $\beta = 0.77, SE = 0.30, OR = 2.16, p < .01$. There was also a main effect for sexual identity, $\chi^2 (3) = 16.52, R^2 = 0.03, p < .01$, with SSA/SSB students being more than three times as likely to have seriously considered attempting suicide when compared to their heterosexual peers, $\beta = 1.22, SE = 0.33, OR = 3.37, p < .001$, and with GLBQ students being three times as likely to have seriously considered attempting suicide when compared to their heterosexual peers, $\beta = 1.11, SE = 0.46, OR = 3.02, p < .05$ (see Table 11). Table 12 shows that this main effect was also found when students with same-sex attraction and/or behavior were compared to students with other-sex attraction and/or behavior, $\chi^2 (1) = 17.22, R^2 = 0.03, p < .001$. Same-sex students were more than three times as likely to have seriously considered attempting suicide in the twelve months prior to the survey, $\beta = 1.25, SE = 0.29, OR = 3.48, p < .001$.

**Mediation effects.** The second step of the regression shows that victimization is a unique and independent predictor of having seriously considered attempting suicide, even when added to the model after sexual identity, $\chi^2 (4) =$
20.48, $R^2 = 0.04$, $p < .001$. As shown in Table 11, when victimization was entered into the equation, the $\beta$, Wald’s $\chi^2$, and the odds ratio decreased for the SSA/SSB and GLBQ groups, with the GLBQ group no longer being significant. This indicates that victimization partially mediated sexual identity’s association with seriously considering attempting suicide. The cross product term, as seen in Step 3, was not significant, indicating that there was no interaction effect between victimization and sexual identity for having seriously considered attempting suicide, and thus interpretation of the results was based on the main effects. Table 12 shows that when analyzed based on same- or other-sex attraction and/or behavior, $\chi^2 (2) = 20.38$, $R^2 = 0.04$, $p < .001$, there was a trend toward significance for victimization, and the partial mediation was still evident.

On-campus victimization was a significant predictor of having seriously considered attempting suicide, even with sexual identity entered into the model, $\chi^2 (4) = 21.33$, $R^2 = 0.04$, $p < .001$ (see Table 13). Victimization partially mediated having seriously considered attempting suicide for the GLBQ students, with the GLBQ group no longer being significant when victimization was entered into the model. The cross product term was not significant, indicating that there was no interaction effect between on-campus victimization and sexual identity for having seriously considered attempting suicide.

Table 14 presents the results of seriously considering attempting suicide when examined based on same-sex attraction and/or behavior and on-campus
victimization. On-campus victimization was a significant predictor of having seriously considered suicide, even with same-sex attraction and/or behavior entered into the model, $\chi^2 (2) = 21.62, R^2 = 0.04, p < .001$. Total on-campus victimization partially mediated the effect of same-sex attraction and/or behavior, as evidenced by the decrease in the $\beta$, Wald’s $\chi^2$, and the odds ratio. The cross product term was not significant, indicating that there was no interaction effect between on-campus victimization and same-sex attraction and/or behavior for having seriously considered suicide.

Made a plan to attempt suicide. Logistic regression analyses were also conducted to determine predictors of having made a plan to attempt suicide in the 12 months prior to the survey. For having made a plan to attempt suicide, a main effect was found for total victimization, $\chi^2 (1) = 3.90, R^2 = 0.01, p < .05$. Students who had been victimized were one and a half times as likely than those who had not been victimized to have made a plan to attempt suicide in the twelve months, $\beta = 0.42, SE= 0.21, OR = 1.51, p < .05$. For victimization occurring on campus, there was a significant main effect, $\chi^2 (1) = 5.44, R^2 = 0.01, p < .05$, with students who had been victimized on campus being twice as likely to have made a plan to attempt suicide when compared to those students who had not been victimized on campus, $\beta = 0.80, SE= 0.33, OR= 2.22, p < .05$. There was a main effect for sexual identity, $\chi^2 (3) = 13.23, R^2 = 0.03, p < .01$, with SSA/SSB students being more than three times as likely to have made a plan to attempt suicide when
compared to their heterosexual peers, $\beta = 1.31, SE = 0.37, OR = 3.69, p < .001$ (see Table 15). Table 16 shows a similar main effect of sexual identity when students with same-sex attraction and/or behavior were compared to students with other-sex attraction and/or behavior, $\chi^2(1) = 13.67, R^2 = 0.03, p < .001$. The same-sex students were more than three times as likely to have made a plan to attempt suicide in the twelve months, $\beta = 1.25, SE = 0.33, OR = 3.50, p < .001$.

*Mediation effects.* As seen in Table 15, the second step of the regression shows that victimization is not a unique predictor of having made a plan to attempt suicide. However, when victimization was entered into the equation, the $\beta$, Wald’s $\chi^2$, and the odds ratio decreased for the SSA/SSB group, indicating partial mediation. The cross product term, as seen in Step 3, was not significant, indicating that there was no interaction effect between victimization and sexual identity for having made a plan to attempt suicide, and thus interpretation of the results was based on the main effects. Table 16 shows that when analyzed based on same- or other-sex attraction and/or behavior, $\chi^2(2) = 15.24, R^2 = 0.03, p < .001$, victimization was not a unique predictor of making a plan to attempt suicide, although the partial mediation was still evident.

Table 17 shows that on-campus victimization remained a significant predictor of having made a plan to attempt suicide, even with sexual identity entered into the model, $\chi^2(4) = 17.76, R^2 = 0.03, p < .001$, although there was no mediating effect for sexual identity. Table 18 shows that when examined based on
same-sex attraction and/or behavior, on-campus victimization again remained a significant predictor of having made a plan to attempt suicide, $\chi^2(2) = 17.44$, $R^2 = 0.03$, $p < .001$, even with same-sex attraction and/or behavior entered into the model. On-campus victimization partially mediated the effect of same-sex attraction and/or behavior, as evidenced by the decrease in the $\beta$, Wald’s $\chi^2$, and the odds ratio. The cross product term was not significant, indicating that there was no interaction effect between on-campus victimization and same-sex attraction and/or behavior.

*Attempted suicide.* Last, logistic regression analyses were conducted to determine predictors of having attempted suicide in the 12 months prior to the survey. There was no main effect for total victimization nor for victimization occurring on campus. There was a main effect for sexual identity, $\chi^2(3) = 8.88$, $R^2 = 0.02$, $p < .05$, with SSA/SSB students being six times more likely to have attempted suicide compared to their heterosexual peers, $\beta = 1.87$, $SE = 0.62$, $OR = 6.47$, $p < .01$ (see Table 19). Table 20 shows that this main effect was also found when students with same-sex attraction and/or behavior were compared to students with other-sex attraction and/or behavior, $\chi^2(1) = 7.17$, $R^2 = 0.01$, $p < .01$. The same-sex students were five times more likely to have attempted suicide in the twelve months prior to the survey, $\beta = 1.60$, $SE = 0.60$, $OR = 4.96$, $p < .01$. 
Mediation effects. The mediation effect for victimization and on-campus victimization were not analyzed due to no significant main effect for either variable.
Table 1: Demographic Characteristics of Total Sample

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<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(0.2%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>YEAR IN SCHOOL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>212</td>
<td>36</td>
<td>18</td>
<td>5</td>
<td>271</td>
</tr>
<tr>
<td></td>
<td>(51.3%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>100</td>
<td>28</td>
<td>7</td>
<td>1</td>
<td>136</td>
</tr>
<tr>
<td></td>
<td>(25.8%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>60</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>(14.8%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>31</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>(7.8%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Matriculated</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(0.4%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ETHNICITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>186</td>
<td>46</td>
<td>18</td>
<td>4</td>
<td>254</td>
</tr>
<tr>
<td></td>
<td>(48.1%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian American</td>
<td>159</td>
<td>24</td>
<td>11</td>
<td>1</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>(36.9%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other-Mix</td>
<td>38</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>(9.3%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>(3.0%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>(1.9%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian/Alaskan Native</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 2: Suicidal Behavior by Sexual Identity

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Heterosexual n = 404, (%)</th>
<th>Heter SSA/SSB n = 79, (%)</th>
<th>GLBQ(^b) n = 38, (%)</th>
<th>Not Sure n = 7, (%)</th>
<th>Test Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seriously Considered Attempting Suicide(^c)</td>
<td>30 (7.4%)</td>
<td>17 (21.5%)</td>
<td>7 (18.4%)</td>
<td>2 (28.6%)</td>
<td>(\chi^2 (3) = 19.06, p &lt; .001)</td>
</tr>
<tr>
<td>Made a Plan to Attempt Suicide(^c)</td>
<td>22 (5.4%)</td>
<td>14 (17.7%)</td>
<td>5 (13.2%)</td>
<td>1 (14.3%)</td>
<td>(\chi^2 (3) = 15.56, p &lt; .01)</td>
</tr>
<tr>
<td>Attempted Suicide(^c)</td>
<td>5 (1.2%)</td>
<td>6 (7.6%)</td>
<td>1 (2.6%)</td>
<td>0</td>
<td>(\chi^2 (3) = 12.21, p &lt; .01)</td>
</tr>
<tr>
<td>Suicide Attempt Required Medical Attention(^c)</td>
<td>0</td>
<td>2 (33.3%)</td>
<td>0</td>
<td>0</td>
<td>(\chi^2 (1) = 1.67, p = .20)</td>
</tr>
</tbody>
</table>

\(^a\)Identified as Heterosexual but reported same-sex attraction or behavior

\(^b\)Gay/Lesbian/Bisexual/Queer

\(^c\)During the 12 months preceding the survey
Table 3: Suicidal Behavior by Sexual Identity and Gender

<table>
<thead>
<tr>
<th></th>
<th>Heterosexual</th>
<th>SSA/SSB&lt;sup&gt;a&lt;/sup&gt;</th>
<th>GLBQ&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Not Sure</th>
<th>Test Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male Female</td>
<td>Male Female</td>
<td>Male Female</td>
<td>Male Female</td>
<td></td>
</tr>
<tr>
<td>Seriously Considered</td>
<td>15 (3.7%) 15 (3.7%)</td>
<td>4 (5.1%) 13 (16.5%)</td>
<td>1 (2.6%) 5 (13.2%)</td>
<td>2 (28.6%) 0</td>
<td>$\chi^2 (6) = 14.60$ $p &lt; .05$</td>
</tr>
<tr>
<td>Attempting Suicide&lt;sup&gt;c&lt;/sup&gt;</td>
<td>13 (3.2%) 9 (2.3%)</td>
<td>4 (5.1%) 10 (12.7%)</td>
<td>2 (5.3%) 2 (5.3%)</td>
<td>1 (14.3%) 0</td>
<td>$\chi^2 (6) = 11.96$ $p = .06$</td>
</tr>
<tr>
<td>Made a Plan to Attempt</td>
<td>0 (1.2%) 5 (1.3%)</td>
<td>1 (1.3%) 5 (6.3%)</td>
<td>1 (2.6%) 0 (0%)</td>
<td>0 (0%) 0 (0%)</td>
<td>$\chi^2 (2) = 6.00$ $p = .05$</td>
</tr>
<tr>
<td>Suicide Attempt&lt;sup&gt;d&lt;/sup&gt;</td>
<td>0 (0%) 0 (0%)</td>
<td>0 (2%) 0 (0%)</td>
<td>0 (0%) 0 (0%)</td>
<td>0 (0%) 0 (0%)</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Identified as Heterosexual but reported same-sex attraction or behavior  
<sup>b</sup>Gay/Lesbian/Bisexual/Queer  
<sup>c</sup>During the 12 months preceding the survey
Table 4: Suicidal Behavior by Other-Sex or Same-Sex Attraction and/or Behavior

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Other-Sex Students&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Same-Sex Students&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Test Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 406, (%)</td>
<td>n = 121, (%)</td>
<td></td>
</tr>
<tr>
<td>Seriously Considered Attempting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide&lt;sup&gt;c&lt;/sup&gt;</td>
<td>30 (7.4%)</td>
<td>26 (21.7%)</td>
<td>$\chi^2(1) = 19.51, p &lt; .001$</td>
</tr>
<tr>
<td>Made a Plan to Attempt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide&lt;sup&gt;c&lt;/sup&gt;</td>
<td>22 (5.4%)</td>
<td>20 (16.7%)</td>
<td>$\chi^2(1) = 15.69, p &lt; .001$</td>
</tr>
<tr>
<td>Attempted Suicide&lt;sup&gt;c&lt;/sup&gt;</td>
<td>5 (1.2%)</td>
<td>7 (5.8%)</td>
<td>$\chi^2(1) = 8.69, p &lt; .01$</td>
</tr>
<tr>
<td>Suicide Attempt Required</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Attention&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0 (0%)</td>
<td>2 (28.6%)</td>
<td>$\chi^2(1) = 1.67, p = .20$</td>
</tr>
</tbody>
</table>

<sup>a</sup>Reported exclusive heterosexual attraction and behavior  
<sup>b</sup>Reported same-sex attraction and/or behavior  
<sup>c</sup>During the 12 months preceding the survey
Table 5: Total Victimization by Sexual Identity

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Heterosexual</th>
<th>Hetero SSA/SSB&lt;sup&gt;a&lt;/sup&gt;</th>
<th>GLBQ&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Not Sure</th>
<th>Test Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 404, (%)</td>
<td>296 (73.3%)</td>
<td>62 (78.5%)</td>
<td>32 (84.2%)</td>
<td>6 (85.7%)</td>
<td>$\chi^2(3) = 3.31$, $p = .35$</td>
</tr>
</tbody>
</table>
| Total Number Of Times Victimized<sup>c</sup> | $M = 1.14$
$SD = 2.72$ | $M = 1.96$
$SD = 3.85$ | $M = 5.01^{1,2}$
$SD = 6.61$ | $M = 2.71$
$SD = 3.00$ | $F(3, 512) = 15.46$, $p < .001$ |
| Number of Times Victimized on Campus<sup>c</sup> | $M = 0.47$
$SD = 1.72$ | $M = 0.56$
$SD = 1.37$ | $M = 2.30^{1,2}$
$SD = 4.19$ | $M = 0.79$
$SD = 0.91$ | $F(3, 517) = 9.97$, $p < .001$ |
| Number of Times Victimized off Campus<sup>c</sup> | $M = 0.66^{1,3}$
$SD = 1.28$ | $M = 1.38^{2,3}$
$SD = 2.82$ | $M = 3.14^{1,2}$
$SD = 3.92$ | $M = 1.93$
$SD = 3.25$ | $F(3, 517) = 20.83$, $p < .001$ |

<sup>a</sup>Identified as Heterosexual but reported same-sex attraction or behavior

<sup>b</sup>Gay/Lesbian/Bisexual/Queer

<sup>c</sup>During the 12 months preceding the survey

<sup>1,2</sup>Sheffe $p < .001$

<sup>3</sup>Sheffe $p < .05$
Table 6: Total Victimization by Other-Sex or Same-Sex Attraction and/or Behavior

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Other-Sex Students(^a)</th>
<th>Same-Sex Students(^b)</th>
<th>Test Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 406, (%)</td>
<td>n = 121, (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reported any Incidence of Victimization(^c)</td>
<td>297 (73.2%)</td>
<td>99 (81.8%)</td>
<td>(\chi^2 (1) = 3.75, p = .05)</td>
</tr>
<tr>
<td>Total Number Of Times Victimized(^c)</td>
<td>(M = 1.14)</td>
<td>(M = 2.94)</td>
<td>(t (136.96) = -3.75, p &lt; .001)</td>
</tr>
<tr>
<td>(SD = 2.72)</td>
<td>(SD = 4.99)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Times Victimized on Campus(^c)</td>
<td>(M = 0.47)</td>
<td>(M = 1.13)</td>
<td>(t (148.03) = -2.46, p &lt; .001)</td>
</tr>
<tr>
<td>(SD = 1.72)</td>
<td>(SD = 2.69)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Times Victimized off Campus(^c)</td>
<td>(M = 0.66)</td>
<td>(M = 1.97)</td>
<td>(t (128.61) = -4.23, p &lt; .001)</td>
</tr>
<tr>
<td>(SD = 1.27)</td>
<td>(SD = 3.31)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Reported exclusive heterosexual attraction and behavior  
\(^b\)Reported same-sex attraction and/or behavior  
\(^c\)During the 12 months preceding the survey
Table 7: Victimization by Sexual Identity

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Heterosexual</th>
<th>Hetero SSA/SSB</th>
<th>GLBQ</th>
<th>Not Sure</th>
<th>Test Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 404</td>
<td>n = 79</td>
<td>n = 38</td>
<td>n = 7</td>
<td></td>
</tr>
<tr>
<td>Threatened On Campus</td>
<td>M = 0.05</td>
<td>M = 0.05</td>
<td>M = 0.03</td>
<td>M = 0.0</td>
<td>F (3, 523) = 0.04, p = 0.99</td>
</tr>
<tr>
<td></td>
<td>SD = 0.62</td>
<td>SD = 0.22</td>
<td>SD = 0.16</td>
<td>SD = 0.0</td>
<td></td>
</tr>
<tr>
<td>Threatened Off Campus</td>
<td>M = 0.064</td>
<td>M = 0.224.6</td>
<td>M = 0.036</td>
<td>M = 0.36</td>
<td>F (3, 523) = 7.22, p &lt; .001</td>
</tr>
<tr>
<td></td>
<td>SD = 0.27</td>
<td>SD = 0.56</td>
<td>SD = 0.16</td>
<td>SD = 0.94</td>
<td></td>
</tr>
<tr>
<td>Not Go to Class because Afraid</td>
<td>M = 0.05</td>
<td>M = 0.03</td>
<td>M = 0.0</td>
<td>M = 0.0</td>
<td>F (3, 526) = 0.33, p = 0.80</td>
</tr>
<tr>
<td></td>
<td>SD = 0.41</td>
<td>SD = 0.16</td>
<td>SD = 0.0</td>
<td>SD = 0.0</td>
<td></td>
</tr>
<tr>
<td>Property Damaged On Campus</td>
<td>M = 0.25</td>
<td>M = 0.31</td>
<td>M = 0.08</td>
<td>M = 0.36</td>
<td>F (3, 524) = 1.05, p = 0.37</td>
</tr>
<tr>
<td></td>
<td>SD = 0.67</td>
<td>SD = 0.78</td>
<td>SD = 0.28</td>
<td>SD = 0.94</td>
<td></td>
</tr>
<tr>
<td>Property Damaged Off Campus</td>
<td>M = 0.52</td>
<td>M = 0.71</td>
<td>M = 0.26</td>
<td>M = 0.79</td>
<td>F (3, 525) = 1.69, p = 0.17</td>
</tr>
<tr>
<td></td>
<td>SD = 0.95</td>
<td>SD = 1.59</td>
<td>SD = 0.63</td>
<td>SD = 1.68</td>
<td></td>
</tr>
<tr>
<td>Physical Fight on Campus</td>
<td>M = 0.04</td>
<td>M = 0.04</td>
<td>M = 0.0</td>
<td>M = 0.0</td>
<td>F (3, 524) = 0.09, p = 0.97</td>
</tr>
<tr>
<td></td>
<td>SD = 0.61</td>
<td>SD = 0.30</td>
<td>SD = 0.0</td>
<td>SD = 0.0</td>
<td></td>
</tr>
<tr>
<td>Physical Fight On Campus</td>
<td>M = 0.0</td>
<td>M = 0.0</td>
<td>M = 0.0</td>
<td>M = 0.0</td>
<td></td>
</tr>
<tr>
<td>Physical Fight Needing Medical Attention</td>
<td>M = 0.00</td>
<td>M = 0.0</td>
<td>M = 0.0</td>
<td>M = 0.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD = 0.0</td>
<td>SD = 0.0</td>
<td>SD = 0.0</td>
<td>SD = 0.0</td>
<td></td>
</tr>
<tr>
<td>Physical Fight Off Campus</td>
<td>M = 0.064</td>
<td>M = 0.15</td>
<td>M = 0.054</td>
<td>M = 0.644.4</td>
<td>F (3, 524) = 6.37, p &lt; .001</td>
</tr>
<tr>
<td></td>
<td>SD = 0.32</td>
<td>SD = 0.42</td>
<td>SD = 0.23</td>
<td>SD = 1.70</td>
<td></td>
</tr>
</tbody>
</table>
Table 7 continued: Victimization by Sexual Identity

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Heterosexual</th>
<th>Hetero SSA/SSB(^b)</th>
<th>GLBQ(^b)</th>
<th>Not Sure</th>
<th>Test Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 404</td>
<td>n = 79</td>
<td>n = 38</td>
<td>n = 7</td>
<td></td>
</tr>
<tr>
<td>Physical Fight Off Campus Needing Medical Attention(^c)</td>
<td>(M = 0.01^1)</td>
<td>(M = 0.02^2)</td>
<td>(M = 0.0^3)</td>
<td>(M = 0.33^{1,2,3})</td>
<td>(F (3, 405) = 9.16, p &lt; .001)</td>
</tr>
<tr>
<td></td>
<td>(SD = 0.10)</td>
<td>(SD = 0.13)</td>
<td>(SD = 0.0)</td>
<td>(SD = 0.58)</td>
<td></td>
</tr>
<tr>
<td>Made fun of Because of Sexual Orientation On Campus(^c)</td>
<td>(M = 0.11^1)</td>
<td>(M = 0.13^2)</td>
<td>(M = 1.99^{1,2,6})</td>
<td>(M = 0.29^6)</td>
<td>(F (3, 524) = 25.09, p &lt; .001)</td>
</tr>
<tr>
<td></td>
<td>(SD = 0.91)</td>
<td>(SD = 0.60)</td>
<td>(SD = 3.67)</td>
<td>(SD = 0.49)</td>
<td></td>
</tr>
<tr>
<td>Made fun of Because of Sexual Orientation Off Campus(^c)</td>
<td>(M = 0.07^1)</td>
<td>(M = 0.25^2)</td>
<td>(M = 2.65^{1,2,4})</td>
<td>(M = 0.64^4)</td>
<td>(F (3, 523) = 48.85, p &lt; .001)</td>
</tr>
<tr>
<td></td>
<td>(SD = 0.67)</td>
<td>(SD = 0.83)</td>
<td>(SD = 3.96)</td>
<td>(SD = 0.94)</td>
<td></td>
</tr>
<tr>
<td>Threatened Because of Sexual Orientation On Campus(^c)</td>
<td>(M = 0.01^4)</td>
<td>(M = 0.04)</td>
<td>(M = 0.14^4)</td>
<td>(M = 0.14)</td>
<td>(F (3, 525) = 4.76, p &lt; .01)</td>
</tr>
<tr>
<td></td>
<td>(SD = 0.07)</td>
<td>(SD = 0.30)</td>
<td>(SD = 0.74)</td>
<td>(SD = 0.38)</td>
<td></td>
</tr>
<tr>
<td>Threatened Because of Sexual Orientation Off Campus(^c)</td>
<td>(M = 0.01^4)</td>
<td>(M = 0.20^4)</td>
<td>(M = 0.11)</td>
<td>(M = 0.14)</td>
<td>(F (3, 524) = 5.1, p &lt; .01)</td>
</tr>
<tr>
<td></td>
<td>(SD = 0.15)</td>
<td>(SD = 0.93)</td>
<td>(SD = 0.31)</td>
<td>(SD = 0.38)</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)Identified as Heterosexual but reported same-sex attraction or behavior
\(^2\)Gay/Lesbian/Bisexual/Queer
\(^3\)Number of times during the 12 months preceding the survey
\(^4\)Number of times during the 30 days preceding the survey
\(^1,2,3\) Sheffe \(p < .001\)
\(^4,5\) Sheffe \(p < .01\)
\(^6\) Sheffe \(p < .05\)
Table 8: Victimization by Other-Sex or Same-Sex Attraction and/or Behavior

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Other-Sex Students&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Same-Sex Students&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Test Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threatened On Campus&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$M = 0.05$</td>
<td>$M = 0.04$</td>
<td>$t(521) = 0.17, p = 0.87$</td>
</tr>
<tr>
<td></td>
<td>$SD = 0.62$</td>
<td>$SD = 0.20$</td>
<td></td>
</tr>
<tr>
<td>Threatened Off Campus&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$M = 0.05$</td>
<td>$M = 0.17$</td>
<td>$t(139.39) = -2.42, p &lt; .05$</td>
</tr>
<tr>
<td></td>
<td>$SD = 0.27$</td>
<td>$SD = 0.52$</td>
<td></td>
</tr>
<tr>
<td>Not Go to Class because Afraid&lt;sup&gt;6&lt;/sup&gt;</td>
<td>$M = 0.05$</td>
<td>$M = 0.02$</td>
<td>$t(524) = 0.90, p = 0.37$</td>
</tr>
<tr>
<td></td>
<td>$SD = 0.41$</td>
<td>$SD = 0.13$</td>
<td></td>
</tr>
<tr>
<td>Property Damaged On Campus&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$M = 0.25$</td>
<td>$M = 0.24$</td>
<td>$t(522) = 0.08, p = 0.93$</td>
</tr>
<tr>
<td></td>
<td>$SD = 0.67$</td>
<td>$SD = 0.69$</td>
<td></td>
</tr>
<tr>
<td>Property Damaged Off Campus&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$M = 0.52$</td>
<td>$M = 0.58$</td>
<td>$t(523) = -0.59, p = 0.56$</td>
</tr>
<tr>
<td></td>
<td>$SD = 0.95$</td>
<td>$SD = 1.40$</td>
<td></td>
</tr>
<tr>
<td>Physical Fight on Campus&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$M = 0.04$</td>
<td>$M = 0.03$</td>
<td>$t(522) = 0.27, p = 0.79$</td>
</tr>
<tr>
<td></td>
<td>$SD = 0.61$</td>
<td>$SD = 0.25$</td>
<td></td>
</tr>
<tr>
<td>Physical Fight On Campus</td>
<td>$M = 0.0$</td>
<td>$M = 0.0$</td>
<td></td>
</tr>
<tr>
<td>Needing Medical Attention&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$SD = 0.0$</td>
<td>$SD = 0.0$</td>
<td></td>
</tr>
<tr>
<td>Physical Fight Off Campus&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$M = 0.06$</td>
<td>$M = 0.15$</td>
<td>$t(146.88) = -1.73, p = 0.09$</td>
</tr>
<tr>
<td></td>
<td>$SD = 0.32$</td>
<td>$SD = 0.54$</td>
<td></td>
</tr>
<tr>
<td>Physical Fight Off Campus</td>
<td>$M = 0.01$</td>
<td>$M = 0.03$</td>
<td>$t(90.65) = -0.88, p = 0.38$</td>
</tr>
<tr>
<td>Needing Medical Attention&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$SD = 0.10$</td>
<td>$SD = 0.16$</td>
<td></td>
</tr>
</tbody>
</table>
Table 8 continued: Victimization by Other-Sex or Same-Sex Attraction and/or Behavior

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Other-Sex Students(^a)</th>
<th>Same-Sex Students(^b)</th>
<th>Test Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made fun of Because of Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Campus(^c)</td>
<td>(M = 0.11)</td>
<td>(M = 0.71)</td>
<td>(t (131.68) = -2.87, p &lt; .01)</td>
</tr>
<tr>
<td></td>
<td>(SD = 0.91)</td>
<td>(SD = 2.27)</td>
<td></td>
</tr>
<tr>
<td>Made fun of Because of Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off Campus(^c)</td>
<td>(M = 0.07)</td>
<td>(M = 1.02)</td>
<td>(t (124) = -4.07, p &lt; .001)</td>
</tr>
<tr>
<td></td>
<td>(SD = 0.67)</td>
<td>(SD = 2.54)</td>
<td></td>
</tr>
<tr>
<td>Threatened Because of Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Campus(^c)</td>
<td>(M = 0.01)</td>
<td>(M = 0.08)</td>
<td>(t (120.45) = -1.74, p = 0.08)</td>
</tr>
<tr>
<td></td>
<td>(SD = 0.07)</td>
<td>(SD = 0.49)</td>
<td></td>
</tr>
<tr>
<td>Threatened Because of Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off Campus(^c)</td>
<td>(M = 0.01)</td>
<td>(M = 0.17)</td>
<td>(t (121.66) = -2.20, p &lt; .05)</td>
</tr>
<tr>
<td></td>
<td>(SD = 0.15)</td>
<td>(SD = 0.78)</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Identified as Heterosexual but reported same-sex attraction or behavior
\(^b\)Gay/Lesbian/Bisexual/Queer
\(^c\)Number of times during the 12 months preceding the survey
\(^d\)Number of times during the 30 days preceding the survey
Table 9: How much of the time do you feel unsafe or afraid while on campus?

<table>
<thead>
<tr>
<th></th>
<th>Heterosexual n = 403 (%)</th>
<th>Heter SSA/SSB* n = 79 (%)</th>
<th>GLBQ^b n = 38 (%)</th>
<th>Not Sure n = 7 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>193 (47.9%)</td>
<td>32 (40.5%)</td>
<td>18 (47.4%)</td>
<td>5 (71.4%)</td>
</tr>
<tr>
<td>Rarely</td>
<td>168 (41.7%)</td>
<td>33 (41.8%)</td>
<td>14 (36.8%)</td>
<td>1 (14.3%)</td>
</tr>
<tr>
<td>Sometimes</td>
<td>41 (10.2%)</td>
<td>14 (17.7%)</td>
<td>6 (15.8%)</td>
<td>0</td>
</tr>
<tr>
<td>Most of the Time</td>
<td>1 (0.2%)</td>
<td>0</td>
<td>0</td>
<td>1 (14.3%)</td>
</tr>
<tr>
<td>Always</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*aIdentified as Heterosexual but reported same-sex attraction or behavior
^bGay/Lesbian/Bisexual/Queer
Table 10: How much of the time do you feel unsafe or afraid while off campus?

<table>
<thead>
<tr>
<th></th>
<th>Heterosexual</th>
<th>Heter SSA/SSB&lt;sup&gt;a&lt;/sup&gt;</th>
<th>GLBQ&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 402 (%)</td>
<td>n = 78 (%)</td>
<td>n = 38 (%)</td>
<td>n = 7 (%)</td>
</tr>
<tr>
<td>Never</td>
<td>75 (18.7%)</td>
<td>13 (16.7%)</td>
<td>6 (15.8%)</td>
<td>2 (28.6%)</td>
</tr>
<tr>
<td>Rarely</td>
<td>182 (45.3%)</td>
<td>33 (42.3%)</td>
<td>17 (44.7%)</td>
<td>2 (28.6%)</td>
</tr>
<tr>
<td>Sometimes</td>
<td>140 (34.8%)</td>
<td>30 (38.5%)</td>
<td>14 (36.8%)</td>
<td>3 (42.9%)</td>
</tr>
<tr>
<td>Most of the Time</td>
<td>5 (1.2%)</td>
<td>2 (2.6%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Always</td>
<td>0</td>
<td>0</td>
<td>1 (2.6%)</td>
<td>0</td>
</tr>
</tbody>
</table>

<sup>a</sup>Identified as Heterosexual but reported same-sex attraction or behavior  
<sup>b</sup>Gay/Lesbian/Bisexual/Queer
Table 11: Logistic Regression Analysis of Sexual Identity and Total Victimization with Seriously Considered Attempting Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>( \beta )</th>
<th>( SE \beta )</th>
<th>Wald's ( \chi^2 )</th>
<th>df</th>
<th>( p )</th>
<th>( e^{\beta} )</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sexual Identity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB(^a)</td>
<td>1.22</td>
<td>0.33</td>
<td>13.28</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.37</td>
<td>1.75 - 6.49</td>
</tr>
<tr>
<td>GLBQ(^b)</td>
<td>1.11</td>
<td>0.46</td>
<td>5.71</td>
<td>1</td>
<td>&lt;.05</td>
<td>3.02</td>
<td>1.22 - 7.50</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1.58</td>
<td>0.86</td>
<td>3.38</td>
<td>1</td>
<td>0.07</td>
<td>4.84</td>
<td>0.90 - 26.01</td>
</tr>
<tr>
<td><strong>Total Victimization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Omnibus Test of Model = ( \chi^2 (3) = 16.52, R^2 = 0.03, p &lt; .01 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 1 (Main Effects Model)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sexual Identity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB(^a)</td>
<td>1.16</td>
<td>0.34</td>
<td>11.88</td>
<td>1</td>
<td>&lt;.01</td>
<td>3.19</td>
<td>1.65 - 6.18</td>
</tr>
<tr>
<td>GLBQ(^b)</td>
<td>0.87</td>
<td>0.48</td>
<td>3.26</td>
<td>1</td>
<td>0.07</td>
<td>2.38</td>
<td>0.93 - 6.11</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1.37</td>
<td>0.87</td>
<td>2.50</td>
<td>1</td>
<td>0.11</td>
<td>3.95</td>
<td>0.72 - 21.63</td>
</tr>
<tr>
<td><strong>Total Victimization</strong></td>
<td>0.38</td>
<td>0.19</td>
<td>4.02</td>
<td>1</td>
<td>&lt;.05</td>
<td>1.46</td>
<td>1.01 - 2.13</td>
</tr>
<tr>
<td>Omnibus Test of Model = ( \chi^2 (4) = 20.48, R^2 = 0.04, p &lt; .001 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 11 continued: Logistic Regression Analysis of Sexual Identity and Total Victimization with Seriously Considered Attempting Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>( \beta )</th>
<th>SE ( \beta )</th>
<th>Wald's ( \chi^2 )</th>
<th>df</th>
<th>( p )</th>
<th>e ( \beta )</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA/SSB(^a)</td>
<td>1.17</td>
<td>0.48</td>
<td>6.06</td>
<td>1</td>
<td>0.01</td>
<td>3.23</td>
<td>1.27 – 8.22</td>
</tr>
<tr>
<td>GLBQ(^b)</td>
<td>0.87</td>
<td>0.48</td>
<td>3.24</td>
<td>1</td>
<td>0.07</td>
<td>2.39</td>
<td>0.93 – 6.14</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1.38</td>
<td>0.92</td>
<td>2.26</td>
<td>1</td>
<td>0.13</td>
<td>3.99</td>
<td>0.66 – 24.22</td>
</tr>
<tr>
<td>Total Victimization</td>
<td>0.39</td>
<td>0.24</td>
<td>2.52</td>
<td>1</td>
<td>0.11</td>
<td>1.47</td>
<td>0.91 – 2.37</td>
</tr>
<tr>
<td>Sexual Identity x Total Victimization</td>
<td>-0.00</td>
<td>0.11</td>
<td>0.00</td>
<td>1</td>
<td>0.97</td>
<td>1.00</td>
<td>0.81 – 1.22</td>
</tr>
</tbody>
</table>

Step 3 (Interaction Effects Model)

Sexual Identity

Omnibus Test of Model = \( \chi^2 \) (5) = 20.48, \( R^2 = 0.04 \), \( p < .01 \)

\(^\text{a}\)Heterosexual as the Comparison Group
\(^\text{b}\)Identified as Heterosexual but reported same-sex attraction or behavior
\(^\text{b}\)Gay/Lesbian/Bisexual/Queer
Table 12: Logistic Regression Analysis of Other-Sex or Same-Sex Attraction and/or Behavior and Total Victimization with Seriously Considered Attempting Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald's $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>$e^\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same-Sex</td>
<td>1.25</td>
<td>0.29</td>
<td>18.15</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.48</td>
<td>1.96 - 6.17</td>
</tr>
<tr>
<td><strong>Omnibus Test of Model</strong> $= \chi^2(1) = 17.22$, $R^2 = 0.03$, $p &lt; .001$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Victimization</td>
<td>0.50</td>
<td>0.18</td>
<td>7.38</td>
<td>1</td>
<td>&lt;.01</td>
<td>1.64</td>
<td>1.15 - 2.35</td>
</tr>
<tr>
<td><strong>Omnibus Test of Model</strong> $= \chi^2(1) = 7.22$, $R^2 = 0.01$, $p &lt; .01$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex</td>
<td>1.13</td>
<td>0.30</td>
<td>14.32</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.11</td>
<td>1.73 - 5.58</td>
</tr>
<tr>
<td>Total Victimization</td>
<td>0.36</td>
<td>0.19</td>
<td>3.66</td>
<td>1</td>
<td>0.06</td>
<td>1.43</td>
<td>0.99 - 2.07</td>
</tr>
<tr>
<td><strong>Omnibus Test of Model</strong> $= \chi^2(2) = 20.83$, $R^2 = 0.04$, $p &lt; .001$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex $\times$ Total Victimization</td>
<td>0.01</td>
<td>0.38</td>
<td>0.00</td>
<td>1</td>
<td>0.98</td>
<td>1.01</td>
<td>0.48 - 2.11</td>
</tr>
<tr>
<td><strong>Omnibus Test of Model</strong> $= \chi^2(3) = 20.83$, $R^2 = 0.04$, $p &lt; .001$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Other-Sex Students as the Comparison Group
*Reported same-sex attraction and/or behavior
Table 13: Logistic Regression Analysis of Sexual Identity and Total On-Campus Victimization with Seriously Considered Attempting Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald's χ²</th>
<th>df</th>
<th>p</th>
<th>e β</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA/SSB⁺</td>
<td>1.23</td>
<td>0.33</td>
<td>13.62</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.42</td>
<td>1.78 - 6.56</td>
</tr>
<tr>
<td>GLBQᵇ</td>
<td>1.04</td>
<td>0.46</td>
<td>5.07</td>
<td>1</td>
<td>&lt;.05</td>
<td>2.82</td>
<td>1.14 - 6.93</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1.61</td>
<td>0.86</td>
<td>3.51</td>
<td>1</td>
<td>0.06</td>
<td>4.99</td>
<td>0.93 - 26.80</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = χ²(3) = 16.45, R² = 0.03, p < .01

Step 1 (Main Effects Model)

Sexual Identity

Total On-Campus Victimization

Omnibus Test of Model = χ²(1) = 6.44, R² = 0.01, p < .05

Step 2 (Unique Effects Model)

Sexual Identity

Total On-Campus Victimization

Omnibus Test of Model = χ²(4) = 21.33, R² = 0.04, p < .001
Table 13 continued: Logistic Regression Analysis of Sexual Identity and Total On-Campus Victimization with Seriously Considered Attempting Suicide as the Dependent Variable¹

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>e β</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA/SSB²</td>
<td>1.35</td>
<td>0.40</td>
<td>11.28</td>
<td>1</td>
<td>&lt;.01</td>
<td>3.85</td>
<td>1.75 - 8.44</td>
</tr>
<tr>
<td>GLBQᵇ</td>
<td>0.91</td>
<td>0.47</td>
<td>3.73</td>
<td>1</td>
<td>0.05</td>
<td>2.48</td>
<td>0.99 - 6.25</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1.52</td>
<td>0.91</td>
<td>2.79</td>
<td>1</td>
<td>0.10</td>
<td>4.80</td>
<td>0.77 - 27.32</td>
</tr>
<tr>
<td>Total On-Campus Victimization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Identity</td>
<td>0.81</td>
<td>0.38</td>
<td>4.60</td>
<td>1</td>
<td>&lt;.05</td>
<td>2.24</td>
<td>1.07 - 4.67</td>
</tr>
<tr>
<td>Sexual Identity x Total On-Campus Victimization</td>
<td>-0.09</td>
<td>0.18</td>
<td>0.26</td>
<td>1</td>
<td>0.61</td>
<td>0.91</td>
<td>0.64 - 1.30</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = $\chi^2$ (5) = 21.60, $R^2 = 0.04$, p < .01

¹Heterosexual as the Comparison Group
²Identified as Heterosexual but reported same-sex attraction or behavior
³Gay/Lesbian/Bisexual/Queer

Step 3 (Interaction Effects Model)
Table 14: Logistic Regression Analysis of Other-Sex or Same-Sex Attraction and/or Behavior and Total On-Campus Victimization with Seriously Considered Attempting Suicide as the Dependent Variable\(^1\)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>(\beta)</th>
<th>(SE\ \beta)</th>
<th>Wald's (\chi^2)</th>
<th>df</th>
<th>(p)</th>
<th>(e\ \beta)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1 (Main Effects Model)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex(^a)</td>
<td>1.23</td>
<td>0.29</td>
<td>17.88</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.43</td>
<td>1.94 - 6.07</td>
</tr>
<tr>
<td>Omnibus Test of Model = (\chi^2 (1) = 16.95, R^2 = 0.03, p &lt; .001)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Step 2 (Unique Effects Model)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex(^a)</td>
<td>1.18</td>
<td>0.29</td>
<td>16.01</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.25</td>
<td>1.82 - 5.78</td>
</tr>
<tr>
<td>Total On-Campus Victimization</td>
<td>0.67</td>
<td>0.30</td>
<td>4.88</td>
<td>1</td>
<td>&lt;.05</td>
<td>1.95</td>
<td>1.08 - 3.52</td>
</tr>
<tr>
<td>Omnibus Test of Model = (\chi^2 (2) = 21.62, R^2 = 0.04, p &lt; .001)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3 (Interaction Effects Model)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex(^a)</td>
<td>1.25</td>
<td>0.37</td>
<td>11.28</td>
<td>1</td>
<td>&lt;.01</td>
<td>3.48</td>
<td>1.68 - 7.19</td>
</tr>
<tr>
<td>Total On-Campus Victimization</td>
<td>0.75</td>
<td>0.40</td>
<td>3.49</td>
<td>1</td>
<td>0.06</td>
<td>2.11</td>
<td>0.96 - 4.61</td>
</tr>
<tr>
<td>Same-Sex(^a) x Total On-Campus Victimization</td>
<td>-0.18</td>
<td>0.61</td>
<td>0.09</td>
<td>1</td>
<td>0.76</td>
<td>0.83</td>
<td>0.25 - 2.73</td>
</tr>
<tr>
<td>Omnibus Test of Model = (\chi^2 (3) = 21.71, R^2 = 0.04, p &lt; .001)</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

\(^1\)Other-Sex Students as the Comparison Group

\(^a\)Reported same-sex attraction and/or behavior
Table 15: Logistic Regression Analysis of Sexual Identity and Total Victimization with Made a Plan to Attempt Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>$SE \beta$</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$e \beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB*</td>
<td>1.31</td>
<td>0.37</td>
<td>12.60</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.69</td>
<td>1.79 - 7.58</td>
</tr>
<tr>
<td>GLBQ*</td>
<td>1.03</td>
<td>0.53</td>
<td>3.80</td>
<td>1</td>
<td>0.05</td>
<td>2.81</td>
<td>0.99 - 7.95</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1.03</td>
<td>1.10</td>
<td>0.88</td>
<td>1</td>
<td>0.35</td>
<td>2.81</td>
<td>0.32 - 24.38</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = $\chi^2 (3) = 13.23$, $R^2 = 0.03$, $p < .01$

---

Step 1 (Main Effects Model)

Total Victimization

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>$SE \beta$</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$e \beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB*</td>
<td>0.42</td>
<td>0.21</td>
<td>4.01</td>
<td>1</td>
<td>&lt;.05</td>
<td>1.51</td>
<td>1.01 - 2.27</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = $\chi^2 (1) = 3.90$, $R^2 = 0.01$, $p = .05$

---

Step 2 (Unique Effects Model)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>$SE \beta$</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$e \beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB*</td>
<td>1.26</td>
<td>0.37</td>
<td>11.56</td>
<td>1</td>
<td>&lt;.01</td>
<td>3.52</td>
<td>1.70 - 7.28</td>
</tr>
<tr>
<td>GLBQ*</td>
<td>0.84</td>
<td>0.55</td>
<td>2.33</td>
<td>1</td>
<td>0.13</td>
<td>2.31</td>
<td>0.79 - 6.79</td>
</tr>
<tr>
<td>Not Sure</td>
<td>0.86</td>
<td>1.11</td>
<td>0.60</td>
<td>1</td>
<td>0.44</td>
<td>2.37</td>
<td>0.27 - 20.89</td>
</tr>
<tr>
<td>Total Victimization</td>
<td>0.31</td>
<td>0.22</td>
<td>2.03</td>
<td>1</td>
<td>0.15</td>
<td>1.36</td>
<td>0.89 - 2.07</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = $\chi^2 (4) = 15.22$, $R^2 = 0.03$, $p < .01$
Table 15 continued: Logistic Regression Analysis of Sexual Identity and Total Victimization with Made a Plan to Attempt Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>$SE\beta$</th>
<th>Wald's $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$e\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>$\chi^2$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3 (Interaction Effects Model)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sexual Identity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB$^a$</td>
<td>0.96</td>
<td>0.54</td>
<td>3.19</td>
<td>1</td>
<td>0.07</td>
<td>2.60</td>
<td>0.91 – 7.43</td>
</tr>
<tr>
<td>GLBQ$^b$</td>
<td>0.81</td>
<td>0.55</td>
<td>2.17</td>
<td>1</td>
<td>0.14</td>
<td>2.26</td>
<td>0.76 – 6.66</td>
</tr>
<tr>
<td>Not Sure</td>
<td>0.60</td>
<td>1.16</td>
<td>0.26</td>
<td>1</td>
<td>0.61</td>
<td>1.82</td>
<td>0.19 – 17.71</td>
</tr>
<tr>
<td><strong>Total Victimization</strong></td>
<td>0.15</td>
<td>0.29</td>
<td>0.28</td>
<td>1</td>
<td>0.59</td>
<td>1.17</td>
<td>0.66 – 2.06</td>
</tr>
<tr>
<td><strong>Sexual Identity x Total Victimization</strong></td>
<td>0.10</td>
<td>0.18</td>
<td>0.65</td>
<td>1</td>
<td>0.42</td>
<td>1.10</td>
<td>0.87 – 1.38</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = $\chi^2 (5) = 15.88$, $R^2 = 0.03$, $p < .01$

$^a$Heterosexual as the Comparison Group
$^b$Identified as Heterosexual but reported same-sex attraction or behavior
$^c$Gay/Lesbian/Bisexual/Queer
Table 16: Logistic Regression Analysis of Other-Sex or Same-Sex Attraction and/or Behavior and Total Victimization with Made a Plan to Attempt Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>SE $\beta$</th>
<th>Wald's $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>$e^\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1 (Main Effects Model)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex$^a$</td>
<td>1.25</td>
<td>0.33</td>
<td>14.44</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.50</td>
<td>1.83 – 6.67</td>
</tr>
<tr>
<td>Omnibus Test of Model = $\chi^2 (1) = 13.67$, $R^2 = 0.03$, $p &lt; .001$</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Step 1 (Main Effects Model)</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Victimization</td>
<td>0.42</td>
<td>0.21</td>
<td>4.01</td>
<td>1</td>
<td>&lt;.05</td>
<td>1.51</td>
<td>1.01 – 2.27</td>
</tr>
<tr>
<td>Omnibus Test of Model = $\chi^2 (1) = 3.90$, $R^2 = 0.01$, $p = .05$</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Step 2 (Unique Effects Model)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex$^a$</td>
<td>1.17</td>
<td>0.34</td>
<td>11.94</td>
<td>1</td>
<td>&lt;.01</td>
<td>3.21</td>
<td>1.66 – 6.21</td>
</tr>
<tr>
<td>Total Victimization</td>
<td>0.27</td>
<td>0.21</td>
<td>1.60</td>
<td>1</td>
<td>0.21</td>
<td>1.31</td>
<td>0.86 – 1.98</td>
</tr>
<tr>
<td>Omnibus Test of Model = $\chi^2 (2) = 15.24$, $R^2 = 0.03$, $p &lt; .001$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3 (Interaction Effects Model)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex$^a$</td>
<td>1.13</td>
<td>0.49</td>
<td>5.20</td>
<td>1</td>
<td>&lt;.05</td>
<td>3.08</td>
<td>1.17 – 8.11</td>
</tr>
<tr>
<td>Total Victimization</td>
<td>0.25</td>
<td>0.30</td>
<td>0.66</td>
<td>1</td>
<td>0.42</td>
<td>1.28</td>
<td>0.71 – 2.30</td>
</tr>
<tr>
<td>Same-Sex$^a$ x Total Victim</td>
<td>0.05</td>
<td>0.43</td>
<td>0.01</td>
<td>1</td>
<td>0.91</td>
<td>1.05</td>
<td>0.46 – 2.41</td>
</tr>
<tr>
<td>Omnibus Test of Model = $\chi^2 (3) = 15.25$, $R^2 = 0.03$, $p &lt; .01$</td>
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</tr>
</tbody>
</table>

$^a$Other-Sex Students as the Comparison Group

$^a$Reported same-sex attraction and/or behavior
Table 17: Logistic Regression Analysis of Sexual Identity and Total On-Campus Victimization with Made a Plan to Attempt Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$e^\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA/SSB*</td>
<td>1.32</td>
<td>0.37</td>
<td>12.90</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.74</td>
<td>1.82 – 7.68</td>
</tr>
<tr>
<td>GLBQ*</td>
<td>0.97</td>
<td>0.53</td>
<td>3.36</td>
<td>1</td>
<td>0.07</td>
<td>2.63</td>
<td>0.94 – 7.40</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1.06</td>
<td>1.10</td>
<td>0.93</td>
<td>1</td>
<td>0.34</td>
<td>2.89</td>
<td>0.33 – 25.10</td>
</tr>
</tbody>
</table>

Omnibus Test of Model $\chi^2(3) = 13.23$, $R^2 = 0.03$, $p < .01$

Step 1 (Main Effects Model)

**Total On-Campus Victimization**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$e^\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA/SSB*</td>
<td>0.80</td>
<td>0.33</td>
<td>5.76</td>
<td>1</td>
<td>&lt;.05</td>
<td>2.22</td>
<td>1.16 – 4.25</td>
</tr>
</tbody>
</table>

Omnibus Test of Model $\chi^2(1) = 5.44$, $R^2 = 0.01$, $p < .05$

Step 2 (Unique Effects Model)

**Sexual Identity**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$e^\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA/SSB*</td>
<td>1.32</td>
<td>0.37</td>
<td>12.76</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.75</td>
<td>1.82 – 7.75</td>
</tr>
<tr>
<td>GLBQ*</td>
<td>0.80</td>
<td>0.54</td>
<td>2.21</td>
<td>1</td>
<td>0.14</td>
<td>2.22</td>
<td>0.78 – 6.36</td>
</tr>
<tr>
<td>Not Sure</td>
<td>0.80</td>
<td>1.12</td>
<td>0.52</td>
<td>1</td>
<td>0.47</td>
<td>2.23</td>
<td>0.25 – 19.90</td>
</tr>
</tbody>
</table>

**Total On-Campus Victimization**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$e^\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA/SSB*</td>
<td>0.75</td>
<td>0.34</td>
<td>4.76</td>
<td>1</td>
<td>&lt;.05</td>
<td>2.12</td>
<td>1.08 – 4.15</td>
</tr>
</tbody>
</table>

Omnibus Test of Model $\chi^2(4) = 17.76$, $R^2 = 0.03$, $p < .01$
Table 17 continued: Logistic Regression Analysis of Sexual Identity and Total On-Campus Victimization with Made a Plan to Attempt Suicide as the Dependent Variable\(^1\)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>(\beta)</th>
<th>SE (\beta)</th>
<th>Wald's (\chi^2)</th>
<th>df</th>
<th>(p)</th>
<th>(e^\beta)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB(^a)</td>
<td>1.50</td>
<td>0.45</td>
<td>11.27</td>
<td>1</td>
<td>&lt;.01</td>
<td>4.50</td>
<td>1.87 - 10.83</td>
</tr>
<tr>
<td>GLBQ(^b)</td>
<td>0.84</td>
<td>0.54</td>
<td>2.41</td>
<td>1</td>
<td>0.12</td>
<td>2.32</td>
<td>0.80 - 6.68</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1.03</td>
<td>1.16</td>
<td>0.80</td>
<td>1</td>
<td>0.35</td>
<td>2.79</td>
<td>0.30 - 26.91</td>
</tr>
<tr>
<td>Total On-Campus Variation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sex Identity x Total On-Campus Victimization</td>
<td>0.93</td>
<td>0.43</td>
<td>4.77</td>
<td>1</td>
<td>&lt;.05</td>
<td>2.54</td>
<td>1.10 - 5.87</td>
</tr>
<tr>
<td>Sex Identity x Total On-Campus Victimization</td>
<td>-0.14</td>
<td>0.20</td>
<td>0.49</td>
<td>1</td>
<td>0.48</td>
<td>0.87</td>
<td>0.59 - 1.28</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = \(\chi^2(5) = 18.26, R^2 = 0.03, p < .01\)

\(^1\)Heterosexual as the Comparison Group
\(^a\)Identified as Heterosexual but reported same-sex attraction or behavior
\(^b\)Gay/Lesbian/Bisexual/Queer
Table 18: Logistic Regression Analysis of Other-Sex or Same-Sex Attraction and/or Behavior and Total On-Campus Victimization with Made a Plan to Attempt Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald's $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>$e^\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same-Sex</td>
<td>1.24</td>
<td>0.33</td>
<td>14.25</td>
<td>1</td>
<td>&lt;.001</td>
<td>3.46</td>
<td>1.82 – 6.58</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = $\chi^2 (1) = 13.48, R^2 = 0.03, p < .001$

Step 1 (Main Effects Model)

| Total On-Campus Victimization | 0.80  | 0.33 | 5.76            | 1  | < .05| 2.22      | 1.16 – 4.25     |

Omnibus Test of Model = $\chi^2 (1) = 5.44, R^2 = 0.01, p < .05$

Step 2 (Unique Effects Model)

| Same-Sex | 1.18  | 0.33 | 12.66           | 1  | < .001| 3.25      | 1.70 – 6.23     |

| Total On-Campus Victimization | 0.69  | 0.34 | 4.14            | 1  | < .05| 1.99      | 1.03 – 3.87     |

Omnibus Test of Model = $\chi^2 (2) = 17.44, R^2 = 0.03, p < .001$

Step 3 (Interaction Effects Model)

| Same-Sex | 1.56  | 0.42 | 13.60           | 1  | < .001| 4.74      | 2.07 – 10.84    |

| Total On-Campus Victimization | 1.12  | 0.45 | 6.32            | 1  | < .05| 3.07      | 1.28 – 7.36     |

| Same-Sex x Total On-Campus Victimization | -0.97 | 0.68 | 2.04            | 1  | 0.15  | 0.38      | 0.10 – 1.44     |

Omnibus Test of Model = $\chi^2 (3) = 19.49, R^2 = 0.04, p < .001$

1Other-Sex Students as the Comparison Group

*Reported same-sex attraction and/or behavior
Table 19: Logistic Regression Analysis of Sexual Identity and Total Victimization with Attempted Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald's χ²</th>
<th>df</th>
<th>p</th>
<th>e β</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA/SSB^a</td>
<td>1.87</td>
<td>0.62</td>
<td>9.10</td>
<td>1</td>
<td>&lt;.01</td>
<td>6.47</td>
<td>1.92 – 21.76</td>
</tr>
<tr>
<td>GLBQ^b</td>
<td>0.83</td>
<td>1.11</td>
<td>0.55</td>
<td>1</td>
<td>0.46</td>
<td>2.28</td>
<td>0.26 – 20.10</td>
</tr>
<tr>
<td>Not Sure</td>
<td>-16.85</td>
<td>15191.52</td>
<td>0.00</td>
<td>1</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00 – -</td>
</tr>
</tbody>
</table>

Step 1 (Main Effects Model)

**Sexual Identity**

Omnibus Test of Model = χ²(3) = 8.88, R² = 0.02, p < .05

Step 1 (Main Effects Model)

**Total Victimization** 0.06 0.39 0.20 1 0.89 1.06 0.49 – 2.28

Omnibus Test of Model = χ²(1) = 0.02, R² = 0.00, p = 0.89

Step 2 (Unique Effects Model)

**Sexual Identity**

Omnibus Test of Model = χ²(4) = 8.90, R² = 0.02, p = 0.06
Table 19 continued: Logistic Regression Analysis of Sexual Identity and Total Victimization with Attempted Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald's $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>$e^\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Step 3 (Interaction Effects Model)</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sexual Identity</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB\textsuperscript{a}</td>
<td>1.53</td>
<td>0.80</td>
<td>3.62</td>
<td>1</td>
<td>0.06</td>
<td>4.62</td>
<td>0.96 – 22.28</td>
</tr>
<tr>
<td>GLBQ\textsuperscript{b}</td>
<td>0.92</td>
<td>1.15</td>
<td>0.64</td>
<td>1</td>
<td>0.42</td>
<td>2.51</td>
<td>0.27 – 23.88</td>
</tr>
<tr>
<td>Not Sure</td>
<td>-17.09</td>
<td>15186.04</td>
<td>0.00</td>
<td>1</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00 – _</td>
</tr>
<tr>
<td><strong>Total Victimization</strong></td>
<td>-0.41</td>
<td>0.68</td>
<td>0.35</td>
<td>1</td>
<td>0.55</td>
<td>0.67</td>
<td>0.18 – 2.54</td>
</tr>
<tr>
<td><strong>Sexual Identity × Total Victimization</strong></td>
<td>0.15</td>
<td>0.22</td>
<td>0.46</td>
<td>1</td>
<td>0.50</td>
<td>1.16</td>
<td>0.76 – 1.78</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = $\chi^2 (5) = 9.38$, $R^2 = 0.02$, $p = .10$

\textsuperscript{a}Heterosexual as the Comparison Group
\textsuperscript{b}Identified as Heterosexual but reported same-sex attraction or behavior
\textsuperscript{c}Gay/Lesbian/Bisexual/Queer
Table 20: Logistic Regression Analysis of Other-Sex or Same-Sex Attraction and/or Behavior and Total Victimization with Attempted Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>$SE\beta$</th>
<th>Wald's $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$e\beta$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1 (Main Effects Model)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex*</td>
<td>1.60</td>
<td>0.60</td>
<td>7.24</td>
<td>1</td>
<td>&lt;.01</td>
<td>4.96</td>
<td>1.55 - 15.95</td>
</tr>
<tr>
<td><strong>Omnibus Test of Model</strong> = $\chi^2 (1) = 7.17$, $R^2 = 0.01$, $p &lt; .01$</td>
<td></td>
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</tr>
<tr>
<td><strong>Step 1 (Main Effects Model)</strong></td>
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<td></td>
</tr>
<tr>
<td>Total Victimization</td>
<td>-0.06</td>
<td>0.39</td>
<td>0.20</td>
<td>1</td>
<td>0.89</td>
<td>1.06</td>
<td>0.49 - 2.28</td>
</tr>
<tr>
<td><strong>Omnibus Test of Model</strong> = $\chi^2 (1) = 0.02$, $R^2 = 0.00$, $p = 0.89$</td>
<td></td>
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<tr>
<td><strong>Step 2 (Unique Effects Model)</strong></td>
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</tr>
<tr>
<td>Same-Sex*</td>
<td>1.65</td>
<td>0.61</td>
<td>7.40</td>
<td>1</td>
<td>&lt;.01</td>
<td>5.22</td>
<td>1.59 - 17.17</td>
</tr>
<tr>
<td>Total Victimization</td>
<td>-0.16</td>
<td>0.40</td>
<td>0.16</td>
<td>1</td>
<td>0.69</td>
<td>0.85</td>
<td>0.39 - 1.85</td>
</tr>
<tr>
<td><strong>Omnibus Test of Model</strong> = $\chi^2 (2) = 7.33$, $R^2 = 0.01$, $p &lt; .05$</td>
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<tr>
<td><strong>Step 3 (Interaction Effects Model)</strong></td>
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</tr>
<tr>
<td>Same-Sex*</td>
<td>1.46</td>
<td>0.78</td>
<td>3.47</td>
<td>1</td>
<td>0.06</td>
<td>4.30</td>
<td>0.93 - 19.97</td>
</tr>
<tr>
<td>Total Victimization</td>
<td>-0.39</td>
<td>0.74</td>
<td>0.28</td>
<td>1</td>
<td>0.60</td>
<td>0.68</td>
<td>0.16 - 2.88</td>
</tr>
<tr>
<td>Same-Sex* x Total Victimiation</td>
<td>0.34</td>
<td>0.88</td>
<td>0.15</td>
<td>1</td>
<td>0.70</td>
<td>1.41</td>
<td>0.25 - 7.93</td>
</tr>
<tr>
<td><strong>Omnibus Test of Model</strong> = $\chi^2 (3) = 7.49$, $R^2 = 0.02$, $p = .06$</td>
<td></td>
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</tbody>
</table>

*Other-Sex Students as the Comparison Group
*Reported same-sex attraction and/or behavior
Table 21: Logistic Regression Analysis of Sexual Identity and Total On-Campus Victimization with Attempted Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald's $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>$e^\beta$</th>
<th>95% CI</th>
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<tr>
<td>Step 1 (Main Effects Model)</td>
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<tr>
<td>Sexual Identity</td>
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</tr>
<tr>
<td>SSA/SSB</td>
<td>1.88</td>
<td>0.62</td>
<td>9.24</td>
<td>1</td>
<td>&lt;.01</td>
<td>6.56</td>
<td>1.95 – 22.06</td>
</tr>
<tr>
<td>GLBQ</td>
<td>0.77</td>
<td>1.11</td>
<td>0.48</td>
<td>1</td>
<td>0.49</td>
<td>2.16</td>
<td>0.25 – 18.95</td>
</tr>
<tr>
<td>Not Sure</td>
<td>-16.82</td>
<td>15191.52</td>
<td>0.00</td>
<td>1</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00 – -</td>
</tr>
<tr>
<td>Omnibus Test of Model = $\chi^2 (3) = 8.98$, $R^2 = 0.02$, $p &lt; .05$</td>
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<tr>
<td>Step 1 (Main Effects Model)</td>
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<tr>
<td>Total On-Campus Victimization</td>
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<tr>
<td>-0.51 0.78 0.43 1 0.51 0.60 0.13 – 2.77</td>
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<tr>
<td>Omnibus Test of Model = $\chi^2 (1) = 0.48$, $R^2 = 0.00$, $p = 0.49$</td>
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<tr>
<td>Step 2 (Unique Effects Model)</td>
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</tr>
<tr>
<td>Sexual Identity</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB</td>
<td>1.89</td>
<td>0.62</td>
<td>9.32</td>
<td>1</td>
<td>&lt;.01</td>
<td>6.62</td>
<td>1.97 – 22.30</td>
</tr>
<tr>
<td>GLBQ</td>
<td>0.88</td>
<td>1.11</td>
<td>0.62</td>
<td>1</td>
<td>0.43</td>
<td>2.41</td>
<td>0.27 – 21.59</td>
</tr>
<tr>
<td>Not Sure</td>
<td>-16.64</td>
<td>15124.93</td>
<td>0.00</td>
<td>1</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00 – -</td>
</tr>
<tr>
<td>Total On-Campus Victimization</td>
<td>-0.55</td>
<td>0.79</td>
<td>0.48</td>
<td>1</td>
<td>0.49</td>
<td>0.58</td>
<td>0.12 – 2.74</td>
</tr>
<tr>
<td>Omnibus Test of Model = $\chi^2 (4) = 9.51$, $R^2 = 0.02$, $p = .05$</td>
<td></td>
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</tr>
</tbody>
</table>
### Table 21 continued: Logistic Regression Analysis of Sexual Identity and Total On-Campus Victimization with Attempted Suicide as the Dependent Variable\(^1\)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>(\beta)</th>
<th>(SE\ \beta)</th>
<th>Wald’s (\chi^2)</th>
<th>df</th>
<th>(p)</th>
<th>(e\ \beta)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sexual Identity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSA/SSB(^a)</td>
<td>1.80</td>
<td>0.67</td>
<td>7.18</td>
<td>1</td>
<td>&lt;.01</td>
<td>6.04</td>
<td>1.62 – 22.52</td>
</tr>
<tr>
<td>GLBQ(^b)</td>
<td>0.89</td>
<td>1.12</td>
<td>0.64</td>
<td>1</td>
<td>0.43</td>
<td>2.44</td>
<td>0.27 – 22.00</td>
</tr>
<tr>
<td>Not Sure</td>
<td>-16.74</td>
<td>15158.40</td>
<td>0.00</td>
<td>1</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00 – _</td>
</tr>
<tr>
<td><strong>Total On-Campus Victimization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.89</td>
<td>1.31</td>
<td>0.46</td>
<td>1</td>
<td>0.50</td>
<td>0.41</td>
<td>0.03 – 5.31</td>
</tr>
<tr>
<td><strong>Sexual Identity</strong> x <strong>Total On-Campus Victimization</strong></td>
<td>0.15</td>
<td>0.43</td>
<td>0.13</td>
<td>1</td>
<td>0.72</td>
<td>1.17</td>
<td>0.50 – 2.71</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = \(\chi^2(5) = 9.64, R^2 = 0.02, p = .09\)

\(^1\)Heterosexual as the Comparison Group
\(^a\)Identified as Heterosexual but reported same-sex attraction or behavior
\(^b\)Gay/Lesbian/Bisexual/Queer
Table 22: Logistic Regression Analysis of Other-Sex or Same-Sex Attraction and/or Behavior and Total On-Campus Victimization with Attempted Suicide as the Dependent Variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald's ( \chi^2 )</th>
<th>df</th>
<th>p</th>
<th>e β</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1 (Main Effects Model)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same-Sex</td>
<td>1.59</td>
<td>0.60</td>
<td>7.18</td>
<td>1</td>
<td>&lt;.01</td>
<td>4.93</td>
<td>1.53 - 15.81</td>
</tr>
<tr>
<td>Total On-Campus Victimization</td>
<td>-0.51</td>
<td>0.78</td>
<td>0.43</td>
<td>1</td>
<td>0.51</td>
<td>0.60</td>
<td>0.13 - 2.77</td>
</tr>
</tbody>
</table>

Omnibus Test of Model = \( \chi^2 (1) = 7.11, R^2 = 0.01, p < .01 \)

**Step 2 (Unique Effects Model)**

| Same-Sex                 | 1.66  | 0.60  | 7.64                 | 1  | <.01   | 5.23  | 1.62 - 16.91 |
| Total On-Campus Victimization | -0.71 | 0.79  | 0.81                 | 1  | 0.37   | 0.49  | 0.11 - 2.31  |

Omnibus Test of Model = \( \chi^2 (2) = 8.03, R^2 = 0.02, p < .05 \)

**Step 3 (Interaction Effects Model)**

| Same-Sex                 | 1.39  | 0.65  | 4.64                 | 1  | <.05   | 4.01  | 1.13 - 14.21 |
| Total On-Campus Victimization | -17.08 | 4190.41 | 0.00                 | 1  | 1.00   | 0.00  | 0.00 - -     |
| Same-Sex \(^a\) x Total On-Campus Victimization | 16.90 | 4190.41 | 0.00                 | 1  | 1.00   | -     | 0.00 - -     |

Omnibus Test of Model = \( \chi^2 (3) = 9.74, R^2 = 0.02, p < .05 \)

\(^{1}\)Other-Sex Students as the Comparison Group
\(^{a}\)Reported same-sex attraction and/or behavior
Chapter V: Discussion

The purpose of this study was to examine the relationship of suicidal behavior and victimization among GLB college students. This was accomplished examining four separate but related questions: (1) What is the incidence of suicidal behavior among gay, lesbian, and bisexual college youth compared to their non-gay, lesbian, and bisexual college peers? (2) What is the relationship of victimization among gay, lesbian, and bisexual college youth compared to non-gay, lesbian, and bisexual college youth? (3) What is the relationship of the victimization of gay, lesbian, and bisexual college students to the suicide rates among these students? and (4) What is the mediating effect of victimization on suicidal behavior among gay, lesbian, and bisexual youth? The information obtained from these four questions helps to expand the current literature involving high school youth and to gain an understanding of suicide and victimization relative to the college population and GLB college youth.

Suicidal Behavior

Suicidal ideation. Overall, 56 students reported seriously considering attempting suicide in the 12 months preceding the survey. The interesting finding from this study was the number of serious contemplators being heterosexual but reporting same-sex attraction and/or behavior (30.4%). The SSA/SSB group and the Not Sure group were each almost three times more likely to consider suicide than the heterosexual group. These findings are consistent with findings from
previous studies in which non-heterosexual college students were 2.56 times more likely than their heterosexual peers to have seriously considered attempting suicide (Kisch et al., 2005). However, the Kisch study only examined two groups, heterosexual and nonheterosexual. Thus, these findings expand the literature by suggesting that having mixed sexual attraction/behavior and identity may be a higher risk factor than those with either stable heterosexual or gay, lesbian, bisexual or queer (GLBQ) attraction/behavior and identity.

Suicide plan. Forty-two participants responded that they had made a plan to attempt suicide within the past 12 months. Once again, the highest rate was among the SSA/SSB students. Almost three times as many same-sex students reported making a plan compared to other-sex students. This is a higher incidence than reported in previous research in which two times as many GLB high school students made a plan to attempt suicide compared to their heterosexual peers (Reis & Saewyc, 1999). Again, this is not a pure comparison because although this study, similar to other studies, has a stable heterosexual group and a stable GLBQ group, it also has a Not Sure group, which previous studies have excluded (D’Augelli et al., 2001; Garofalo et al., 1998), and a SSA/SSB group, which has not been previously examined.

Suicide attempts. Similar to the other suicidal behavior findings, SSA/SSB students (50%) were six times more likely to have attempted suicide than their heterosexual peers, while GLBQ students (8%) were also at-risk, but only two
times more likely to attempt suicide than their heterosexual peers. These findings were consistent with other research using the Youth Risk Behavior Survey (Bagley & Tremblay, 2000), which found that gay, lesbian, and bisexual high school youth to be two to three times more likely to attempt suicide than their heterosexual peers. However, these studies only examined students based on self-identified sexual identity, not attraction or behavior. By separating out students with SSA/SSB, it appears from this study that youth who have some sexual attraction toward the same gender but identify as heterosexual seem to be at greater risk of attempting suicide.

When SSA/SSB is combined with the GLBQ group, the two categorization analyses showed that nearly 5 times as many same-sex students attempted suicide compared to other-sex students. These findings are consistent with Fergusson et al. (1999) who included behavior as well as self-reported identity in creating their gay, lesbian, and bisexual group and discovered gay, lesbian, and bisexual youth between the ages of 14 and 21 had attempted suicide more than four times more often than heterosexual youth.

Consistent with the suicidal behavior identified in this sample, it is interesting to note that of the 12 suicide attempts, 2 resulted in a serious injury, poisoning, or overdose that had to be treated by a doctor or a nurse. Both students were from the SSA/SSB group. Unfortunately, there were not enough people in
this group to make any generalizations, but is noteworthy that both medically
dangerous attempts were from the same group.

These findings support the first hypothesis of the study that GLB college
students would have a higher percentage of suicidal ideation and attempts than
their non-GLB peers. What was not expected was the high rate of suicidal
behavior among the SSA/SSB students. Researchers have stated that it cannot be
assumed that students experiencing same-sex attraction or behavior will always
self-identify as GLB (Russell, 2006). This was the reason for examining these
students separately. All SSA/SSB students identified as heterosexual but reported
same-sex attraction or engaging in same-sex behavior. This raises the question of
why students experiencing same-sex attraction and/or behavior are identifying as
heterosexual, where they were in their sexual identity formation process, and how
that related to their suicidality.

There are several possible explanations for this finding. First, at least some
students in the SSA/SSB group may have been in the midst of a GLB identity
formation, yet had not yet reached a point of disclosure. Support for this
explanation is found in the D’Augelli et al. (2001) study which indicated that
amongst 350 GLB suicide attempters ages 14-21, 54% made their first attempt
before disclosing their sexual orientation to others. The 79 SSA/SSB students may
represent that particular subset of youth. These students may also have been
suffering the stressor of isolation that precedes disclosure to self and others and
accompanies the questioning of sexual identity. This stress may have been exacerbated by the fact that by college age, most peers have already established their sexual identity and have developed the associated social ties. Youth struggling with feelings of isolation and identity confusion typically continue living with a straight identity (Flowers & Buston, 2001; Radkowsky & Siegel, 1997), which would account for the large portion of SSA/SSB identifying as heterosexuals. Yet by doing so these students may be experiencing low self-esteem (D’Augelli et al., in press; Grossman & D’Augelli, 2004), and therefore be at high risk for suicide (Overholser et al., 1995).

Second, the SSA/SSB students may fall under the category of individuals who will later identify as bisexual. Fox (2000) found that many bisexual individuals did not identify as bisexual until their early- to mid-twenties. The mean age of participants in this study was 19, suggesting that in several years some of these students may be at the age of identifying as bisexual, and were undergoing the stressors related to disclosure to self.

Last, these SSA/SSB college students had already identified as heterosexual in their early adolescence, but were struggling with current sexual attraction and/or behavior with the same sex. Researchers have stated that individuals may minimize experiences that imply a different sexual identity to preserve an already established identity (Fox, 2000), possibly explaining why they were identifying as heterosexual despite same-sex attraction and/or behavior. If
this is the case, these students may have been having difficulty with acceptance of their same-sex attraction and/or behavior. Hershberger and D’Augelli (1995) found that self-acceptance was the single largest predictor of suicide, which could explain the high occurrence of suicidal behavior among these students.

Victimization

The results of victimization, both on and off campus, addressed the second question of the study, supported the hypothesis that GLB college students would be victimized more than non-GLB college students. GLBQ students experienced the most victimization, with the exception of SSA/SSB students who were threatened more off campus. These findings were consistent with previous research demonstrating that GLB high school students are victimized more often than non-GLB high school students (Hershberger & D’Augelli, 1995; Hershberger et al., 1997; Reis & Saewyc, 1999). Gay, lesbian, and bisexual college students, unlike high school students (Garofalo et al., 1999; Reis & Saewyc, 1999), did not report having their property damaged, not going to class because they were afraid, or getting into physical fights. Unfortunately, it is not the case that the GLBQ youth are not experiencing this victimization but rather that the heterosexual students in this sample reported higher rates of victimization than expected.

Victimization and Suicide

Results supported the third hypothesis, that victimization of GLB college students would be directly related to the suicidality, yet this was supported only for
suicidal ideation, not for suicide attempts. Similar to GLB high school students (Garofalo et al., 1999; Reis & Saewyc, 1999), victimization was related to suicidal ideation for GLB college students. Victimization was not related to suicide attempts, but this may be due to the fact that only 12 students in the study attempted suicide—too small of a group to detect anything smaller than a very large effect size.

Perhaps the most important finding of this study supported the fourth hypothesis regarding mediation of suicidal behavior by victimization for GLB college youth. Victimization partially mediated the main effect of sexual identity in relation to seriously considering attempting suicide and making a plan to attempt suicide. With victimization taken into account, GLBQ college students do not appear to be at greater risk for considering a suicide attempt than their heterosexual peers. This is consistent with the findings of Bontempo and D’Augelli (2002) who found that differences among the suicidality of GLB high school students were mediated by victimization at school.

Numerous studies have cited the increased suicide risk for GLB youth (Bagley & Tremblay, 2000; Fergusson et al., 1999; Frankowski, 2004; Garofalo et al., 1998; McDaniel et al., 2001; Remafedi et al., 1998; Russell & Joyner, 2001), but the findings of this study suggest that it is not an effect of these youth being GLB that is contributing to their suicidality, but rather the victimization that they endure. This highlights the importance of addressing victimization as a main risk
factor for suicidal ideation among GLB college youth. In addition, both heterosexual and GLBQ youth in this study were victimized regarding sexual orientation issues, and thus prevention and intervention efforts should be made campus-wide with all students welcomed, not simply GLB or queer students.

Limitations of the Study

There were several limitations to this study. First, it important to note that this was not a random sample, but one of convenience using students from the psychology subject pool and those that have an affiliation with the Q center. In addition, there was a sex bias of more females than males in the sample. The state in which the university is located is also nationally recognized for equal rights and protection for GLB individuals. Thus these results may therefore not be generalizable to a general or national university population.

Second, results were compared to findings from studies of high school students, but these two groups of students are not comparable. Many victimized GLB high school students drop out of school (Weiler, n.d.) making those students who attend college a qualitatively different group of students. Those who go on to college are likely to have more intrapersonal resources, including intelligence. Also, the transition to college creates additional stressors that are not experienced by high school students (Clark, 2005; Kerr, Johnson, Gans, & Krumrine, 2004).

Last, there were several limitations of the data, which were derived exclusively from self-report. Although many studies use this methodology,
relying on only one source of data is not ideal. Because random assignment to
groups is not possible, the likelihood of a third variable explaining mediating
effects must also be considered. Finally, small sample sizes within the groups and
relatively low number of suicide attempters restricted power to identify
differences.

Directions for Future Research

The most surprising finding of this study was the high incidence of
suicidality among the SSA/SSB group. Previous research has not examined
students identifying as heterosexual but experiencing same-sex attraction or
behavior. The high suicidality of this group leads to many uncertainties regarding
their sexual identity formation process. Similarly, little is known regarding those
students who are questioning their sexual identity, in this study they constituted
the Not Sure group. Research addressing suicide among GLB youth typically
omits the results of students who identify as “Not Sure.” Given the relatively high
suicidality of this group, more research is needed before firm generalization can be
offered. The SSA/SSB and Not Sure groups were both subsets of students who
appeared to be in flux regarding their sexual identity. Future studies need to
address the issues of youth who do not fall into the mainstream heterosexual
society, but who have not identified as GLB and have yet to experience the support
and pride typically provided by gay culture. The findings from this study also
need to be replicated. As stated, a convenience sample was used, taken from a
university located in a large city with a relatively high gay, lesbian, and bisexual population.

Overall Study Implications

The findings of this study have many important implications in working with and meeting the needs of GLBQ students and those students who are questioning their sexuality. Providers of suicide prevention and intervention programs on college campuses need to be aware of the increased suicide risk for GLB youth, heterosexual youth experiencing same-sex attraction and/or engaging in same-sex sexual behavior, and youth not sure of their sexual identity, and be prepared to address this issue. With current legislation such as the Garrett Lee Smith Memorial Act providing federal support for youth suicide-prevention activities, it is important that the needs of these students be considered when allocating funds to best address the needs of all students.

Addressing the issue of on-campus victimization for GLBQ youth might be an effective way of preventing and/or intervening suicidal behavior for this population. An increase in awareness and protocol to deal with safety and victimization issues would be a first step toward reaching this goal, as well as training incoming freshman on how to respond to and report victimization. Useful and prominent organizations that address school safety issues for GLB students, such as the Gay, Lesbian, and Straight Education Network (GLSEN) and the Safe
Schools Coalition, which typically cater to students in grades kindergarten though 12, should consider expanding their services to GLB college students.

Finally, it is important for college campuses to not only provide students with a safe environment, but also provide access to older adults who can give support, caring, and resources. Adult caring is a protective factor for suicidal behavior among GLB high school students (Eisenberg & Resnick, 2006). Several GBLQ participants in the study reported going to the Q Center as their way of seeking social/emotional support after being victimized. Unfortunately, many of the free services on campus are not being used by the students. Universities should develop a campaign to advertise and promote such services.

Young adult suicide is a relevant issue for those who work in the mental health field, as is suicide risk among GLB youth. The findings of this study provide an avenue of addressing this risk by indicating the importance of preventing or intervening in victimization.
References


Appendix A: Questionnaire

There are no right or wrong answers, please give your honest answer. Do not sign your name.

These questions relate to your experiences on or off the UW campus during the past 12 months. For Freshman and new students, please only assess your time here at the University of Washington.

1) What is your age?
   a. 17  
ob. 18
   c. 19  
d. 20
   e. 21  
f. 22
   g. 23  
h. Other ______

2) What is your year in school?
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior
3) How do you describe your ethnicity?
   
   a. Caucasian/White
   b. African American
   c. Latino
   d. Asian American
   e. American Indian
   f. Alaskan Native
   g. Other ________

4) What is your gender?
   
   a. Male
   b. Female
   c. Transgender
   d. Other ________

5) Which of the following best describes you?
   
   a. Heterosexual (straight)
   b. Gay or lesbian
   c. Bisexual
   d. Not sure

6) The person(s) with whom you have had sexual contact is (are)?
   
   a. I have not had sexual contact with anyone
   b. Female(s)
   c. Male(s)
   d. Female(s) and male(s)
7) What best describes who you ever felt sexually attracted to?
   a. Only to males, never to females
   b. More often to males, but at least once to a female
   c. About equally often to males and females
   d. More often to females, but at least once to a male
   e. Only to females, never to males
   f. Never attracted to anyone at all

8) During the past 12 months, did you ever seriously consider attempting suicide?
   a. Yes
   b. No

9) During the past 12 months, did you make a plan about how you would attempt suicide?
   a. Yes
   b. No

10) During the past 12 months, how many times did you actually attempt suicide?
    a. 0 times
    b. 1 time
    c. 2 or 3 times
    d. 4 or 5 times
    e. 6 or more times

11) If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?
    a. I did not attempt suicide in the past 12 months
    b. Yes
    c. No
12) During the past 30 days, on how many days did you not go to class because you felt you would be unsafe on campus?
   a. 0 days
   b. 1 day
   c. 2 or 3 days
   d. 4 or 5 days
   e. 6 or more days

13) How much of the time do you feel unsafe or afraid while on campus (including dorms, the HUB, IMA etc.)?
   a. Never (please skip to question #15)
   b. Rarely
   c. Sometimes
   d. Most of the time
   e. Always

14) If you feel unsafe or afraid on campus, please share how you cope with those feelings or your strategy for coming to campus: (examples might be avoiding campus, walking with a friend, staying away from campus at night, etc)
15) How much of the time do you feel unsafe or afraid while off campus
(neighborhood, downtown, etc.)?
   a. Never (please skip to question #17)
   b. Rarely
   c. Sometimes
   d. Most of the time
   e. Always

16) If you feel unsafe or afraid off campus, please share how you cope with those
    feelings or your strategy for going places off campus: (examples might be
    staying home, walking with a friend, not going places alone at night, etc)
17) During the past 12 months, how many times has someone stolen or deliberately damaged your property (car, clothing, books etc.) on campus?
   a. 0 times (please skip to question #25)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

18) If you had your property stolen or deliberately damaged on campus, please indicate where this occurred: ______________________

19) Did you report the incident(s)?
   a. Yes
   b. No

20) If you reported the incident(s), please indicate with whom you filed the report or who you contacted (Seattle police, UW police, resident advisor etc): ______________________

21) Did you seek social/emotional support through any resources?
   a. Yes
   b. No
22) If you sought social/emotional support, who did you go to? (Please circle all that apply)
   a. Friends
   b. Family
   c. Counseling Center
   d. Hall Health
   e. Church
   f. Other _______________

23) How helpful was this support?
   a. Not at all helpful
   b. A little helpful
   c. Somewhat helpful
   d. Helpful
   e. Very Helpful

24) If helpful, what was helpful? If not, please describe what kind of support would have been helpful?
25) During the past 12 months, how many times has someone stolen or deliberately damaged your property (car, clothing, books etc.) off campus?
   a. 0 times (please skip to question #33)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

26) If you had your property stolen or deliberately damaged off campus, please indicate where this occurred: ___________________

27) Did you report the incident(s)?
   a. Yes
   b. No

28) If you reported the incident(s), please indicate with whom you filed the report or who you contacted (Seattle police, etc): ___________________

29) Did you seek social/emotional support through any resources?
   a. Yes
   b. No
30) If you sought social/emotional support, who did you go to? (Please circle all that apply)
   a. Friends
   b. Family
   c. Counseling Center
   d. Hall Health
   e. Church
   f. Other ______________

31) How helpful was this support?
   a. Not at all helpful
   b. A little helpful
   c. Somewhat helpful
   d. Helpful
   e. Very Helpful

32) If helpful, what was helpful? If not, please describe what kind of support would have been helpful?
33) During the past 12 months, how many times were you in a physical fight on campus?
   a. 0 times (please skip to question #36)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

34) If you were in a physical fight on campus, please indicate where the fight occurred:____________________

35) During the past 12 months, how many times were you in a physical fight on campus in which you were injured and had to be treated by a doctor or nurse?
   a. 0 times
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times
36) During the past 12 months, how many times were you in a physical fight off campus?
   a. 0 times (please skip to question #39)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

37) If you were in a physical fight off campus, please indicate where the fight occurred:

38) During the past 12 months, how many times were you in a physical fight off campus in which you were injured and had to be treated by a doctor or nurse?
   a. 0 times
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times
39) During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on campus?
   a. 0 times (please skip to question #47)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

40) If you were threatened or injured with a weapon on campus, please indicate where this occurred: ______________________

41) Did you report the incident(s)?
   a. Yes
   b. No

42) If you reported the incident(s), please indicate with whom you filed the report or who you contacted (Seattle police, UW police, resident advisor etc):
    ______________________

43) Did you seek social/emotional support through any resources?
   a. Yes
   b. No
44) If you sought social/emotional support, who did you go to? (Please circle all that apply)
   a. Friends
   b. Family
   c. Counseling Center
   d. Hall Health
   e. Church
   f. Other ____________________

45) How helpful was this support?
   a. Not at all helpful
   b. A little helpful
   c. Somewhat helpful
   d. Helpful
   e. Very Helpful

46) If helpful, what was helpful? If not, please describe what kind of support would have been helpful?
47) During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife or club off campus?
   a. 0 times (please skip to question #55)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

48) If you were threatened or injured with a weapon off campus, please indicate where this occurred: ______________________

49) Did you report the incident(s)?
   a. Yes
   b. No

50) If you reported the incident(s), please indicate with whom you filed the report or who you contacted (Seattle police, etc): ______________________

51) Did you seek social/emotional support through any resources?
   a. Yes
   b. No
52) If you sought social/emotional support, who did you go to? (Please circle all that apply)
   a. Friends
   b. Family
   c. Counseling Center
   d. Hall Health
   e. Church
   f. Other ____________________

53) How helpful was this support?
   a. Not at all helpful
   b. A little helpful
   c. Somewhat helpful
   d. Helpful
   e. Very Helpful

54) If helpful, what was helpful? If not, please describe what kind of support would have been helpful?
55) During the past 12 months, while on campus, how many times have you been made fun of or received offensive comments because of your sexual orientation?
   a. 0 times (please skip to question #63)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

56) If while on campus you were made fun of or received offensive comments because of your sexual orientation, please indicate where this occurred:

57) Did you report the incident(s)?
   a. Yes
   b. No

58) If you reported the incident(s), please indicate who you contacted (UW official, resident advisor, etc.): ______________________

59) Did you seek social/emotional support through any resources?
   a. Yes
   b. No
(60) If you sought social/emotional support, who did you go to? (Please circle all that apply)
   a. Friends
   b. Family
   c. Counseling Center
   d. Hall Health
   e. Church
   f. Other _______________

(61) How helpful was this support?
   a. Not at all helpful
   b. A little helpful
   c. Somewhat helpful
   d. Helpful
   e. Very Helpful

(62) If helpful, what was helpful? If not, please describe what kind of support would have been helpful?
63) During the past 12 months, while off campus, how many times have you been made fun of or received offensive comments because of your sexual orientation?
   a. 0 times (please skip to question #71)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

64) If while off campus you were made fun of or received offensive comments because of your sexual orientation, please indicate where this occurred:

65) Did you report the incident(s)?
   a. Yes
   b. No

66) If you were reported the incident(s), please indicate who you contacted (Seattle police, Lambda Legal, etc):

67) Did you seek social/emotional support through any resources?
   a. Yes
   b. No
68) If you sought social/emotional support, who did you go to? (Please circle all that apply)
   a. Friends
   b. Family
   c. Counseling Center
   d. Hall Health
   e. Church
   f. Other ______________

69) How helpful was this support?
   a. Not at all helpful
   b. A little helpful
   c. Somewhat helpful
   d. Helpful
   e. Very Helpful

70) If helpful, what was helpful? If not, please describe what kind of support would have been helpful?
71) During the past 12 months, while on campus, how many times have you been threatened or hurt because somebody thought you were gay, lesbian, or bisexual?
   a. 0 times (please skip to question #74)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

72) If while on campus you were threatened or hurt because somebody thought you were gay, lesbian, or bisexual, please indicate where this occurred:

__________________________________________________________________

73) Did you report the incident(s)?
   a. Yes
   b. No

74) If you were reported the incident(s), please indicate who you contacted (Seattle police, UW police, resident advisor, etc):
__________________________________________________________________

75) Did you seek social/emotional support through any resources?
   a. Yes
   b. No
76) If you sought social/emotional support, who did you go to? (Please circle all that apply)
   a. Friends
   b. Family
   c. Counseling Center
   d. Hall Health
   e. Church
   f. Other _______________

77) How helpful was this support?
   a. Not at all helpful
   b. A little helpful
   c. Somewhat helpful
   d. Helpful
   e. Very Helpful

78) If helpful, what was helpful? If not, please describe what kind of support would have been helpful?
74) During the past 12 months, while off campus, how many times have you been threatened or hurt because somebody thought you were gay, lesbian, or bisexual?
   a. 0 times (you are done! Please turn to page 20.)
   b. 1 time
   c. 2 or 3 times
   d. 4 or 5 times
   e. 6 or 7 times
   f. 8 or 9 times
   g. 10 or 11 times
   h. 12 or more times

80) If while off campus you were threatened or hurt because somebody thought you were gay, lesbian, or bisexual, please indicate where this occurred:

__________________________

81) Did you report the incident(s)?
   a. Yes
   b. No

82) If you were reported the incident(s), please indicate who you contacted (Seattle police, Lambda Legal, etc): ______________________

83) Did you seek social/emotional support through any resources?
   a. Yes
   b. No
84) If you sought social/emotional support, who did you go to? (Please circle all that apply)
   a. Friends
   b. Family
   c. Counseling Center
   d. Hall Health
   e. Church
   f. Other ______________

85) How helpful was this support?
   a. Not at all helpful
   b. A little helpful
   c. Somewhat helpful
   d. Helpful
   e. Very Helpful

86) If helpful, what was helpful? If not, please describe what kind of support would have been helpful?
Thank you for your time and honesty.

Please remember that we do not know your identity and will not be able to follow up with any of your answers. You are encouraged to take the attached resource sheet and make use of it if current distress, self-harm, or suicidal behavior is occurring, or if these behaviors occur in the future.
Please tear off this page to keep and turn in the rest of the questionnaire.

### Resources

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<tr>
<th>Service</th>
<th>Hours</th>
<th>Contact Numbers</th>
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<tr>
<td><strong>Crisis Line</strong></td>
<td>24 Hours</td>
<td>(206) 461-3222 or 1-866-4CRISIS</td>
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<tr>
<td></td>
<td></td>
<td>(427-4747)</td>
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<tr>
<td><strong>SUICIDE</strong></td>
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<td>1-800-SUICIDE</td>
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<td>National Hotline</td>
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<td>National Hotline</td>
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<tr>
<td>The Trevor Helpline for GLBT Youth</td>
<td>24 Hours</td>
<td>1-866-4-U-TREVOR</td>
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<td>(1-866-488-7386)</td>
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<td><strong>SEXUAL ORIENTATION</strong></td>
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<td>Gay &amp; Lesbian National Hotline</td>
<td>M-F, 1:00 p.m.-9:00 p.m. Sat, 9:00 a.m.-2:00 p.m.</td>
<td>1-888-843-4564</td>
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<td>Gay, Lesbian, Bisexual and Transgender</td>
<td>M-F, 3:00 p.m.-8:00 p.m. Sat, 3:00 p.m.-7:00 p.m.</td>
<td>1-888-340-4528</td>
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<td>Peer Listening Line</td>
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<td>1-800-399-PEER</td>
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<td><strong>HARASSMENT/VICTIMIZATION</strong></td>
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<tr>
<td>Safe Schools Coalition</td>
<td>24 hours</td>
<td>1-877-SAFE-SAFE</td>
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<tr>
<td>(through the Sexual Assault Resource Line)</td>
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<td>(723-3723)</td>
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<td><strong>UW RESOURCES</strong></td>
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<tr>
<td>UW Counseling Center</td>
<td>M-F, 8 a.m. to 5 p.m.</td>
<td>(206) 543-1240</td>
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<td></td>
<td>401 Schmitz Hall</td>
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<tr>
<td>UW Mental Health Clinic</td>
<td>M-F, 8 am to 5 pm</td>
<td>(206) 543-5030</td>
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<td></td>
<td>Hall Health</td>
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<tr>
<td>Q Center- GBLTTQI Campus Resource Center</td>
<td>M-Th, 10 a.m.-5:30 p.m.</td>
<td>(206) 897-1430</td>
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<td>F, 9 a.m.-2:30 p.m.</td>
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<td></td>
<td>450 Schmitz Hall</td>
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<tr>
<td>Office of the Ombudsman</td>
<td>M-F, 9 a.m. - 4 p.m.</td>
<td>(206) 543-6028</td>
</tr>
<tr>
<td></td>
<td>HUB 301</td>
<td></td>
</tr>
</tbody>
</table>
VITA

Heather Elise Murphy was born in Seattle, Washington. She earned her Bachelor of Science degree from the University of Washington in 1998. In 2003, she completed her Master of Education degree and became a certified School Psychologist. She earned her Doctor of Philosophy degree in Educational Psychology from the University of Washington in 2007.