ADOLESCENT HOMOSEXUAL INTEREST AND INCREASED SUICIDE RISK

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Matthew C. Brown

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Committee Chair: Dr. Steve Carlton-Ford

ABSTRACT

Suicide is the third leading cause of death for people in the 15 to 19 year age group. Although qualitative research indicates that gay and lesbian adolescents are at particularly high risk for suicide, little attention has been given to the impact homosexual interest has on suicide risk. The purpose of this thesis is to analyze the impact homosexual interest has on suicide risk, while controlling for the mediating affects of isolation and depressed mood. The data used in the analysis was obtained from the University of Minnesota Adolescent Health Survey, which included adolescents between 12 years of age to 20 years of age. Two homosexual interest groups (consistent homosexual interest and inconsistent homosexual interest) were used for comparison with heterosexual adolescents. The findings indicate that adolescents with consistent homosexual interest have over three and a half times the odds of being at risk for suicide that heterosexual adolescents have. Adolescents with inconsistent homosexual interest have odds of higher suicide risk that are significantly, though only slightly, more than heterosexual adolescents. After controlling for isolation and depressed mood, adolescents with consistent homosexual interest still have over three times the odds of suicide risk when compared with heterosexual adolescents. The difference between adolescents with inconsistent homosexual interest and heterosexual adolescents becomes non-significant.

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TABLE OF CONTENTS

ABSTRACT	
ACKNOWLEDGEMENTS	
LIST OF TABLES AND FIGURES	3
CHAPTERS	
I INTRODUCTION	4
II LITERATURE REVIEW	8
Isolation and Adolescent Suicide	8
Isolation and Homosexually Interested	
Adolescents	9
Isolation from Social Institutions	13
Isolation from the Family	14
Isolation within Peer Groups	17
Isolation from School and Religious Adults	20
Isolation from Gay and Lesbian Community	21
Depressed Mood and Homosexually Interested	
Adolescents	23
Hypotheses	25
III METHODS	28
Characteristics of the Sample	28
Characteristics of the Measures	30
Analysis Plan	42
IV FINDINGS	45
Intervening Variables	45

Adolescent Homosexual Interest Effects on Suicide Risk	52
V DISCUSSION	57
Gaps in Existing Research	59
Research Problems with Gay and Lesbian Adolescents	61
Suggestions for Structural Changes	62
REFERENCES	65
APPENDIX A	69
APPENDIX B	70
APPENDIX C	73

LIST OF TABLES AND FIGURES

TABLES

1	Suicide Risk Component Variable	37
2	Means and Standard Deviations for All Variables	46
3a	Unstandardized OLS Coefficients for Isolation from Family	47
3b	Unstandardized OLS Coefficients for Isolation from Non-Family Members	50
4	Unstandardized OLS Coefficients for Depressed Mood	51
5	Predicted Odds for Suicide Risk	53

FIGURE

1	Causal Model	27
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CHAPTER 1

INTRODUCTION

Suicide is the third leading cause of death for people in the 15-19 year age group (Garland and Zigler 1993). Depending on which report one reads, the adolescent suicide rate rose either 200 percent between the years 1960 and 1988 (Garland and Zigler 1993) or 170 percent from the 50's to the mid 80's (Center for Disease Control 1986), while remaining relatively stable for other age groups. Suicide rates are not, however, equal for all subgroups of adolescents. Sex, race/ethnicity, and age have been associated with differing rates of suicide attempts among adolescents. Males are approximately four times more likely to complete suicide than are females (Berman and Jobes 1991). The gender difference in suicide attempts and completions reflects method choice. Males tend to choose more immediately lethal methods than females, such as firearms and hangings. Whites are more likely to commit suicide than are other ethnic groups (Garland and Zigler 1993). For children and adolescents, the suicide rate increases with increasing age (Brent 1989; Shaffer and Fisher 1981). Therefore, older adolescents are more likely to be at risk for suicide than younger adolescents. Until recently, however, the attempter's sexuality has received very little attention in the literature.

Current statistics reveal a disproportionate number of homosexually interested adolescents who are attempting and

committing suicide. Gibson (1989) reports that an estimated 30 percent of all completed adolescent suicides were by gay boys or lesbian girls. Likewise, almost a third of all adolescent suicides involve sexual identity issues (Harry 1989). Martin and Hetrick (1988) reported that 21 percent of the clients at the Institute for the Protection of Gay and Lesbian Youths (IPGLY) had attempted suicide. Bell and Weinberg (1978) reported that 20 percent of the gay male subjects in their study using adult gay men and lesbian women attempted suicide before the age of 20. In their study, Saghir and Robins (1973) reported 18 percent of adult gay male subjects attempted suicide before the age of 20. In a study examining risk factors of suicide attempts for bisexual and homosexual adolescent boys, Remafedi (1991) reported that for each year's delay in bisexual or homosexual self-labeling, the odds of a suicide attempt diminished by 80 percent. It is the purpose of this thesis to address the impact adolescent sexuality has on suicide risk (ideation and/or attempts).

Discussions of sexuality use a number of similar terms to refer to related yet analytically distinct aspects of sexuality. For reasons that will become clear in the methods section, I use the terms "gay and lesbian" to distinguish individuals who have internalized their homosexual attractions and self-identify as gay or lesbian (see Troiden 1988). More broadly, I use the term

the steps of Durkheim (1951).

This study explores the relationship between homosexual interest and adolescent suicide risk, while taking perceived social isolation and depressed mood into account. In this way, we will be able to see their mediating effects on homosexual interest and adolescent suicide risk. I choose to limit this thesis to isolation and depressed mood since most of the literature focuses on isolation and depressed mood as being the two most common problems encountered by gay and lesbian adolescents.

I divide this thesis into five sections: 1) I review literature concerning the conceptualization of isolation and the role of isolation in suicide risk for the general adolescent population; 2) I discuss how homosexually interested adolescents experience a greater sense of isolation in contemporary society and consequently experience greater suicide risk; 3) I discuss the role of depression in adolescent suicide; 4) I describe the data set, the model, and the analysis plan which is tested; 5) I discuss the analysis results and conclusions of the study.

CHAPTER 2

LITERATURE REVIEW

Isolation and Adolescent Suicide

First, isolation has been conceptualized in many ways and these different conceptualizations can affect results. Repeatedly, elements of broken, weakened, or atrophied social ties are viewed as crucial in their influence on suicide (Trout 1980; Wenz 1979). Measures of isolation vary in many ways: the number of individuals with whom a person interacts in a given time, the frequency of social interactions in a given time, the number of qualitatively different types of relationships a person has, or the degree of intimacy involved in an individual's interactions (Trout 1980).

These issues notwithstanding, Stengal (1964) argues that one must also take into account the feelings of loneliness, detachment, and alienation that some people experience even though they may have superficial contacts with others. Giddens (1971) agrees, isolation may be phenomenal rather than actual. Both subjective and objective measures of an individual's isolation appear to be useful when examining the relationship between social isolation and suicide (Trout 1980).

Research suggests that, in general, adolescents who tend to be social isolates are more likely to attempt suicide (Blumenthal and Knupter 1988; Trout 1980; Wenz 1979). Wenz (1979) concludes that since adolescence is a

good predictor of whether someone will or will not attempt suicide, there is something about the period of adolescence that underlies this behavior. Adolescents are isolated from their parents, school adults, and social institutions. Society grants authority to adults and offers adolescents very little sense of empowerment. Adolescent isolation may stem from their powerlessness at a time when autonomy is stressed to them (Wenz 1979).

Isolation and Homosexually Interested Adolescents

Current research (D'Augelli 1993; Martin and Hetrick 1988; Hetrick and Martin 1987; Martin 1982; Malyon 1981) and autobiographical narratives (Heron 1983; Fricke 1981) suggest that isolation due to an adolescent having a gay or lesbian identity or attempting to negotiate homosexual interests can have a serious impact on that adolescent's potential suicide risk. Martin and Hetrick (1988) suggest that the isolation experienced by homosexually interested adolescents is three-fold: cognitive, social, and emotional. They discuss cognitive isolation as reflecting a lack of accurate information available to homosexually interested youths. Social isolation, according to these authors, reflects the problems of trying to manage a stigmatized identity, in this case a homosexual identity. A homosexual identity can lead to a denial of all other social identities for an adolescent. Through inaccurate information our

society reinforces the idea in adolescents that being homosexually interested denies their other identities. For example, one cannot be homosexual and a Christian, a doctor, a mother, or a father (Martin 1982). Also, the lack of adult role models to interact with denies homosexually interested adolescents the acceptance of their own community. Homosexually interested adolescents are isolated from other gay men and lesbian women, whether the latter be peers or adults. Emotional isolation includes the "feelings of being alone, of being the only one who feels this way, of having no one to share feelings with" (Martin and Hetrick 1988, p. 171). Homosexually interested adolescents are denied accurate information, social acceptance, and internalize their feelings of isolation, thus putting them at risk for suicide.

Martin (1982) and Hetrick and Martin (1987) discuss the process of "learning to hide" for homosexually interested adolescents, since the homosexual identity in current society is a stigmatized identity (Martin 1982). Accordingly, a homosexually interested adolescent remains a member of her/his primary group, but due to her/his nascent homosexual identity becomes estranged from it. The literature concerning social deviants supports the idea of "learning to hide," as well. Sainsbury (1955) states that isolation is more than just being alone. It is the social rejection and the ostracism resulting from the violation of

a social taboo that a social deviant must deal with. Thus, phenomenal isolation is relevant when attempting to grasp homosexually interested adolescents' isolation.

Homosexually interested adolescents in their suicide behavior and ideation focus attention on their sense of isolation in a heterosexist culture. The heterosexist bias expressed by educators, parents, politicians, peers, and the media reinforces homosexually interested adolescents' isolation. Also, society's reluctance to acknowledge homosexually interested adolescents (Remafedi 1987) may perpetuate their isolation by reinforcing their sense of not having a place in society and of being totally alone.

Homosexually interested adolescents may appear to be well integrated into the school, family, peer groups, or church, and still experience isolation within their social interactions. The appearance of connectedness coupled with feelings of isolation is extremely important considering the internalized oppression of homosexually interested adolescents. Most homosexually interested adolescents learn that to remain part of an approved group, their homosexuality must be kept hidden from other group members. Homosexually interested adolescents's group memberships are based on deception that reinforces their sense that they are not truly members of the group, even as their membership is maintained (Martin 1982). Martin (1982, p. 58) states, "[t]his strategy of deception distorts all relationships the

adolescent may attempt to develop or maintain and creates an increasing sense of isolation." Homosexually interested adolescents are carefully taught to hate themselves and to view themselves as aberrant (Manguen 1991; Heron 1983; Fricke 1981). Being reared under this society's heterosexist hegemony, homosexually interested adolescents often internalize, as oppressive unalterable facts, the socially constructed definitions of what is considered "natural" and normative. Interpersonal ties may appear to be gratifying, yet the ideologies of the people within the institutions deny homosexually interested adolescents acceptance based on their sexual identity.

Martin and Hetrick (1988, p. 165) report that "[i]solation is the most prevalent and, for many gay and lesbian adolescents, the most serious problem they face." Low integration of homosexually interested adolescents in society can lead to higher rates of suicide. Restricted access to accurate information, lack of lesbian and gay adult role models, lack of non-threatening space for interaction with gay or lesbian peers, and verbal and physical abuse have permeated many aspects of homosexually interested adolescents' lives. Based on informal qualitative interviews it is reasonable to expect that religious condemnation of homosexuals, school curricula promoting the traditional concepts of binary gender and sexuality systems, and families that reject their gay sons

and lesbian daughters, all coalesce to contribute to isolation for adolescents beginning to negotiate a gay or lesbian identity.

Isolation from Social Institutions

The criminalization of same-sex acts in the U. S., Bowers v. Hardwick (1986), coalesces with religious, educational, and familial subsystems to place gay men and lesbian women, and especially homosexually interested adolescents, in a restricted position within society. Homosexually interested adolescents' social isolation exists psychologically, as well as experientially. Homosexually interested adolescents, as a result of internalizing homophobia, experience self-inflicted physical and psychological abuse during their adolescent years (Manguen 1991; Heron 1983; Fricke 1981). Such experiences can lead to higher levels of suicide risk behaviors within this population.

Homosexually interested adolescents face discrimination within the familial, religious, educational, political institutions, and through the mass media, all of which perpetuate the heterosexist hegemony. The educational, familial, religious, and political institutions socialize adolescents regarding who they should be, what they can do, and where they can go. Consequently, these institutions simultaneously ostracize homosexually interested

adolescents, and remind them that gay men and lesbian women are to be treated as "Other" or risk possible criticism of their sexual role. The risk of being identified as homosexual by associating with identified (self or otherwise) lesbian women or gay men creates greater distances between homosexually interested adolescents and potential mentors. Further, laws preserve the preferential treatment of heterosexuals in society while denying homosexuals the same rights (Cain 1993; Marcossan 1992; Harvard Law Review Note 1989). These institutions serve an integrative function in society for heterosexuals, but every one of them restricts access for gay men and lesbian women.

Isolation from the Family

Isolation from the family is considered a strong predictor of overall isolation for homosexually interested adolescents. Martin and Hetrick (1988) report that difficulties with the family are the second most common problem presented by homosexually interested youths seeking help from the Institute for the Protection of Gay and Lesbian Youths (IPGLY). Almost all of Martin and Hetrick's study's participants reported feeling distanced and detached from their families. Homosexually interested youths experience violence and expulsion from their homes (Martin and Hetrick 1988; Hetrick and Martin 1987). Also, many homosexually interested youths experience rejection from

their parents and siblings. For example, Chris Jones first tried to kill himself when he was in the sixth grade. He tried five more times over the next four years; he was amazed that all his attempts went unnoticed by his parents (Manguen 1991).

Along with feeling distanced and detached from family members, structural features of the family reinforce lesbian and gay isolation. Another example of how gay men and lesbian women are poorly integrated into society is presented when examining means to social success, and who has access to these means. Every adult heterosexual man and woman can marry and rear a family; family rearing is a salient source of integration within this society. Structurally, gay men and lesbian women are denied this role. Children are socialized at a young age to marry and rear a family. Every institution supports the traditional idea of family, that it requires both a man and a woman to rear children.

Child rearing is a major theme in this society; yet through the dominant sexual ideology gay and lesbian couples are denied children. Under present law, lesbian and gay couples cannot adopt children and often lose custody of their own children when their same sex relationship or homosexual identity becomes known (Harvard Law Review Note 1989). This imposed "sterilization" of same sex couples denies them access to a means of success, thus eliminating

their chances for success. Also, this strengthens the stigmatization of the homosexual identity; once again, gay men and lesbian women are ostracized by society. Populations not allowed to participate in success-defining activities are more isolated from that society.

However, this is changing, somewhat. In a time of highly sophisticated reproductive technology, (for example, in vitro fertilization, artificial insemination by donor, and surrogacy) lesbian and gay couples are reproducing their own versions of nuclear families. Still, these technologies are regulated (Blankenship, Rushing, Onorato, and White 1993). Single mothers and same-sex couples are routinely denied this option. In this process, the technology is wielded as a form of access to social normativity and integration.

Along the same lines, gay and lesbian relationships are denied the sanction and helping resources of society because heterosexist ideologies continue to promote these relationships as immoral (Saunders and Valente 1987). Accordingly, social isolation for homosexually interested adolescents is intensified when the familial, educational, political, and religious institutions reject them. Homosexually interested adolescents' sense of social isolation seems to be greater than straight adolescents (Martin and Hetrick 1988; Hetrick and Martin 1987; Martin

1982; Malyon 1981), partly through self other comparisons and almost complete societal rejection.

Isolation within Peer Groups

Homosexually interested adolescents are ostracized by the adolescent culture, as well. Many homosexually interested adolescents spend their youths feeling that there is no one else like them. The lack of homosexually interested adolescent peer groups exacerbates this isolation. It is during adolescence that adolescents start to expand and develop their social identities. During adolescence, homosexually interested girls and boys learn to interact on the basis of deceit for fear of being discovered (Hetrick and Martin 1987). The resulting depreciation of self can have serious consequences for the homosexually interested adolescent. The injured self-worth and lack of confidence can create in adolescents a sense of being unworthy of love, affection, and approval (Hetrick and Martin 1987).

Also, homosexually interested adolescents' opportunities for dating are virtually non-existent. Adolescence offers youths the opportunity to integrate many aspects of their increasing social roles; dating offers the integration of sexuality into their expanding social roles. Homosexually interested adolescents because of their stigmatized nascent identity, their sexuality, and their

lack of dating and friendship opportunities tend to compartmentalize their sexuality instead of fully integrating it with other aspects of their development (Martin and Hetrick 1988; Hetrick and Martin 1987; Malyon 1981).

Also, the homophobic bias presented in school curricula and classrooms via teacher-to-student interaction and student-to-student interaction reinforces the homosexually interested adolescent's internalized isolation. At a time when many adolescents become increasingly self-aware and start examining gender and sexual identities the pressure to conform can create a hostile atmosphere for many gender-atypical adolescents (Harry 1983) and homosexually interested ones.

Harry (1983) concludes that being an adolescent loner (isolation), engaging in childhood cross-gendering behavior, and sexual identity are all significantly associated with parasuicide (i.e., suicide ideation) for males. Simply put, boys who are considered loners, perceived effeminate, question their sexuality, or self-identify as homosexual, are more likely to have thoughts about suicide. Being an adolescent loner was the only significant factor associated with parasuicide for females. His results repeatedly revealed that cross-gendered behavior is more alienating for males than for females. These results are consistent with society's patriarchal view of women. Society rewards

attributes associated with masculinity, while devaluing attributes associated with femininity. Consequently, when a woman exhibits masculine traits she is more likely to be rewarded than when a man exhibits feminine traits.

Much of the social isolation experienced by homosexually interested adolescents is created in school settings. Evans and Eder (1993) examine the process of social isolation in a middle school setting. According to the authors, one of the three main areas of negative evaluation that isolates a student is gender behavior. For example, Evans and Eder (1993) discuss the use of derogatory homosexual labels, i.e., "faggot," "fag," and "queer" toward isolates. Taylor and Remafedi (1993) suggest that these are the worst insults used in junior and senior high schools. Adolescents dealing with the anxiety surrounding sexuality use these labels to help reduce their anxiety (Evans and Eder 1993), and are often echoing the opinions of parents and non-familial adults (Taylor and Remafedi 1993). Adolescents attach the label of homosexual to those students least like themselves, whether or not the student is indeed homosexual (Evans and Eder 1993). This type of social ridicule has a significant impact on gay and lesbian students and those homosexually interested students who can and do pass as heterosexual. Derogatory homosexual remarks used in school reinforce the stigma for identified gay and lesbian students and those homosexually interested students

still dealing with their sexuality. Also, self-other comparisons only exacerbate homosexually interested adolescents' social isolation. Homosexually interested youths ridiculed in middle school will tend to be the homosexually interested adolescents ridiculed in high school, since in general the same children are ridiculed from year to year (Carlton-Ford, Reef, Black, and Simmons 1989).

Isolation from School and Religious Adults

Not only are homosexually interested adolescents estranged from their peer groups but also from the adults in their non-familial social interactions as well. Autobiographical narratives, along with the few sample-based studies that examine homosexually interested adolescents (Taylor and Remafedi 1993; Heron 1983; Fricke 1981), further illustrate the sense of social isolation that homosexually interested adolescents encounter. For example, a 14 year old boy, after he "came out" to his teacher was told by that teacher, " . . . he would rather for his son to come home any day with cancer than to have what [the boy] had." Afterwards, the boy went into the band room and tried to hang himself (Manguen 1991). Also, semi-structured interviews indicate that teachers overtly and covertly reinforce the traditional notions of sexuality. The teachers' curricular content and interpersonal exchanges

with students may reinforce homosexually interested students' sense of isolation.

Adults in a homosexually interested adolescent's religious institution may express hatred toward gay men and lesbian women, reinforcing our culture's compulsory heterosexuality. Christianity has long taught its followers that one cannot be a Christian and a homosexual (Baker 1985; Pattison and Pattison 1980, as cited in Martin and Hetrick 1988).

Isolation from the Gay and Lesbian Community

Due to limits of the data set, this study will not be able to address the integrative role of the lesbian, gay, and bisexual community. However, it is important to keep in mind homosexually interested adolescents' isolation from the lesbian, gay, and bisexual community, and the loss of benefits these youths might receive from such contact and involvement. This isolation is facilitated, in part, by the internalization of anti-homosexual ideologies of society by gay men and lesbian women. Many lesbian and gay adults are still struggling with their own sense of shame and guilt concerning their sexual identity as well as rage against a society that restricts their opportunities and participation. Hence, these men and women are unavailable emotionally for homosexually interested adolescents.

Also, gay men and lesbian women often are prosecuted under ambiguous laws, stemming from inaccurate portrayals of gay men and lesbian women as predatory pedophiles, threats to children (Rupp 1980, as cited in Martin 1982) and the family (Socarides 1975). As a result, parents of homosexually interested adolescents fear that their child might be sexually molested if s/he associates with gay and lesbian adults or seeks professional help. Similarly, parents may fear that what might be a "phase" may become permanent. Similarly, gay and lesbian professionals may fear legal retaliation. As was expressed by a physician at a conference of gay and lesbian identified health professionals, "How can I risk openly working with gay youth? I would be accused of recruitment and could lose my practice" (Martin and Hetrick 1988, p. 173).

Homophobia also creates an atmosphere where homosexually interested adolescents are afraid to seek out help from gay and lesbian professionals and organizations. Although adult gay and lesbian organizations would seem to be one source of social integration for homosexually interested adolescents, dependency on parents for transportation and the climate of homophobia makes this difficult for these youths due to fear of social persecution and rejection by family.

As a result, homosexually interested adolescents have rarely found individual help and even scarcer structural

help from the gay, lesbian, and bisexual community. However, as the gay, lesbian, and bisexual communities begin organizing and building political and social awareness, the exclusion of homosexually interested adolescents is changing. Adult gay men and lesbian women are organizing social and support groups and agencies for homosexually interested adolescents; for example, the Institute for the Protection of Gay and Lesbian Youths (IPGLY) was founded for this very purpose. The emerging awareness of adolescent homosexuality and the problems encountered by homosexually interested adolescents continues to create a need for lesbian women and gay men to offer support and protection to homosexually interested youths (Hetrick and Martin 1987; Malyon 1981). The increased visibility of the lesbian, gay, and bisexual community and the availability of accurate information regarding homosexuality helps homosexually interested adolescents seek advice and support from these service agencies.

Depressed Mood and Homosexually Interested Adolescents

Depressed mood has been associated with adolescent suicide risk (Adcock, Nagy, and Simpson 1991; Shaffer et al. 1988). Shaffer et al. (1988) reported that one of the strongest predictors of adolescent suicide attempts was depression. Also, Adcock et al. (1991) using the Alabama Adolescent Health Survey reported a strong association

between depressed mood and adolescent suicide risk. A recent study of lesbian and gay college students found that 63 percent of the male respondents and 40 percent of the female respondents reported concerns with depressed mood (D'Augelli 1993). Thus, part of the high suicide risk by homosexually interested adolescents may be mediated by depressed mood. Depressed mood among homosexually interested adolescents is attributed to the management of a stigmatized identity in society and not the person's sexual attraction (D'Augelli 1993, Martin and Hetrick 1988; Hetrick and Martin 1987; Martin 1982; Malyon 1981). The process of developing a gay or lesbian identity is exacerbated by lack of information, inaccurate information, harassment, and violence. This may also exacerbate homosexually interested adolescents' depressed mood.

To summarize, adolescence can be a particularly lonely and difficult period for homosexually interested adolescents. Alienation tends to set into motion a chain of events that leads to attempted suicide (Wenz 1979). As a result of "learning to hide" and internalizing derogatory homosexual stereotypes, interpersonal bonds are weakened for the homosexually interested adolescent. Communication blockages occur reducing the homosexually interested adolescents chances for social interaction. The fewer the social interactions for the individual, the greater the sense of isolation, powerlessness, and withdrawal. Although

homosexually interested adolescents have friends, they seldom, if ever, are able to talk uncensored about their same sex desires, fantasies, or experiences. The need to edit one's discourse restricts communication and decreases homosexually interested adolescents' social integration. Also, the constant self-monitoring of how one looks, talks, walks, and dresses exacerbates homosexually interested adolescents' isolation. This process develops into an alienated way of life that results in a higher risk of suicide.

Measures of isolation and depressed mood cannot represent the entire spectrum of the factors that influence the lives of homosexually interested adolescents. The homophobic context in which adolescents are reared produces multidimensional discrimination that affects all aspects of homosexually interested adolescents' experiences. Thus, I expect that after controlling for isolation and depressed mood, homosexually interested adolescents will still be at greater risk for suicide than heterosexual adolescents.

Hypotheses

The following hypotheses are represented in the causal model (See Figure 1). Hypothesis one: homosexually interested adolescents will experience greater isolation than heterosexual adolescents. Hypothesis two: homosexually interested adolescents will experience worse depressed moods

than heterosexual adolescents. Hypothesis three: for all adolescents, isolation will have a positive relationship with depressed mood. Hypothesis four: for all adolescents, isolation will have a positive relationship with suicide risk. Hypothesis five: for all adolescents, depressed mood will have a positive relationship with suicide risk. Hypothesis six: after controlling for isolation and depressed mood, as well as race, age, and sex, homosexually interested adolescents will remain at greater suicide risk than heterosexual adolescents.

Figure 1
Path Model for
Homosexually Interested Adolescent Suicide Risk*

* All relationships will be estimated net of age, race, and sex.

CHAPTER 3

METHODS

To produce accurate and valid statistics concerning homosexually interested adolescents' suicide risk, this thesis will use the University of Minnesota's Adolescent Health Survey (AHS). This data set is the only large scale sample study to ask adolescents about their sexual fantasies, attractions, behaviors, sexual self-identification, and suicide risk. Until recently most discussions concerning homosexually interested adolescent suicide used statistics generated from adult gay men and lesbian women (Bell and Weinberg 1978; Saghir and Robins 1973). Previous research focused on gay men's and lesbian women's lifestyles and relied on recollections of their adolescence without focusing on mental health issues. Thus, the prior information reported concerning homosexually interested adolescent suicide may not validly indicate homosexually interested adolescents' suicide risk.

Characteristics of the Sample

A modified stratified cluster sampling design was employed to select a random sample of public schools. The Minnesota Department of Education designated a random sample of eligible school districts for participation in the study; eighty-four of the districts invited participated. This represents 49 percent of the districts that were invited. The student participation rate was approximately 70 percent

in the districts which participated. Data were weighted to reflect the actual composition of the Minnesota students according to grade level, stratum, and geographic area.

There are two reasons for the generally low district participation rates. First, a major city newspaper was conducting a drug study which competed for metro area schools. Second, a conservative lobbying group initiated a state-wide campaigning against the survey. Even before the campaign, however, many school districts did not want to participate due to the sensitive nature of the study, fearing a strong community reaction. Parents were informed of the project and given an opportunity to refuse student's participation. Participation in the survey was voluntary; responses were kept anonymous and confidential. Student non-response was due to parental refusal, student refusal, student absenteeism, and also transfers and dropouts (Blum, Harris, Resnick, and Rosenwinkel 1989).

As a result of district requests for modifications, four different forms of the survey were administered (Blum et al. 1989). The vast majority of questions were, however, similar across forms. Surveys were administered in 1986-1987 by project staff to 36,741 Minnesota public school students in the seventh through twelfth grades in classroom settings.

The final weighted sample included 34,706 cases. This sample was almost equally divided by gender, 49.8 percent

male and 50.2 percent female, as well as between metropolitan and rural residents, 51.5 percent and 49.5 percent, respectively. The age range for the sample was from 12 to 20 years old, with 98.9 percent of the sample being 18 years or younger. The racial composition of the sample was 94.2 percent white; 5.8 percent were African American, Hispanic, Native American, or Asian/Pacific Islander. Respondents were almost equally divided between higher socioeconomic strata and lower socioeconomic strata, 50.6 percent and 49.4 percent, respectively. The complete survey consisted of 189 items on adolescent health and psychosocial issues.

Characteristics of the Measures

Homosexual Interest. The Minnesota Adolescent Health Survey contains four variables related to homosexuality: 1) fantasizing about people of the same sex (FANTASY); 2) being sexually attracted to people of the same sex and intending to be sexual with people of the same sex (ORIENT); 3) having feelings about one's self as homosexual (ATTRACT); and 4) having sex with someone of the same sex (WITHBOY/WITHGIRL). This last variable was asked of only half of the sample.

The sexual fantasy variable (FANTASY) asked:

When you think or daydream about sex, do you think about:

- 1) Males
- 2) Females
- 3) Both?

The sexual fantasy variable (FANTASY) was combined with gender to create a variable indicating whether or not an individual has same-sex or both-sex fantasies (GENFAN).

The sexual attraction and behavioral intent variable (ORIENT) asked respondents to describe to whom they were attracted and with whom they intended to become sexual.

Respondents were asked:

Which of the following best describes your feelings?

- 1) I am only attracted to people of the same sex as mine, and I will only be sexual with persons of the same sex.
- 2) I am strongly attracted to people of the same sex and most of my sexual experiences will be with persons of the same sex as mine.
- 3) I am equally attracted to men and women and would like to be sexual with both.
- 4) I am strongly attracted to people of the opposite sex and most of my sexual experiences will be with persons of the opposite sex.
- 5) I am only attracted to people of the opposite sex and I will only be sexual with persons of the opposite sex.

The sexual attractions and behavioral intent variable (ORIENT) was dichotomized (DORIENT) creating a variable that indicates whether an individual was either heterosexual or

homosexually interested. Responses of "equally attracted to and become sexually involved with both sexes," or "strongly attracted to and become sexually involved with same sex," or "only attracted to and become sexually involved with same sex" were all classified as homosexually interested.

The sexual identity variable (ATTRACT) asked respondents to describe their sexual feelings.

Which of the following best describes your feelings?

- 1) 100% heterosexual (attracted to persons of the opposite sex)
- 2) Mostly heterosexual
- 3) Bisexual (equally attracted to men and women)
- 4) Mostly homosexual
- 5) 100% homosexual (attracted to persons of the same sex)
- 6) Not sure

This variable was dichotomized (DATTRACT), creating a variable that indicates whether or not an individual has homosexual feelings. A response of bisexual, mostly homosexual, 100% homosexual, or not sure was classified as homosexually interested. Taylor and Remafedi (1993) report that, for the "unsure" response group, the predominantly homosexual responses increased with age, while the proportion heterosexual decreased; thus I include the "unsure" responses with the homosexually interested group.

The sexual behavior variable (WITHBOY or WITHGIRL) is a partial sample measure.

Have you ever had any kind of sexual experience with a male?

- 1) Yes
- 2) No

Have you ever had any kind of sexual experience with a female?

- 1) Yes
- 2) No

It was not asked on the urban instrument. It was combined with gender to create a variable indicating whether or not an individual has same sex behaviors (BOYBOY or GIRLGIRL). This measure is not used as part of the sexuality composite due to its restricted use with the total sample.

In identifying a homosexually interested sample the complicated and complex nature of defining homosexuality and identifying homosexuals became apparent. My measures of sexual identity are only moderately correlated (see Appendix A). This problem appears to be inherent in sexuality research. The data are unable to produce a clear answer of which respondents are or are not homosexual.

Similarly, Lauman, Gagnon, Michaels, and Michaels (1994) discuss problems creating a clear, definite answer to whether or not a respondent is homosexual. Three reasons emerged for why they could not provide a clear and definitive decision about whether a person is or is not homosexual. First, our sexuality is not fixed over our lifetime. People engage in different sexual acts throughout their life, such as when a previously married woman

chooses to live with a woman sex partner. Second, there is no one set of sexual desires or self-identifications that uniquely defines homosexuality. Does desire for a person of the same sex define a person as gay or lesbian? Or, does it take a person thinking of themselves as a gay man or a lesbian woman? Or is it a combination of these factors? Third, homosexual behavior is not easily measured. Homosexuals have been persecuted for centuries, and the consequent need to hide has an impact on what people are willing to do and talk about (Laumann et al. 1994). In order to have a large enough sample of gay men and lesbian women, they treated respondents who answered with same-sex responses to any of their three questions about sexuality as their homosexual sample.

My solution resembles the one used by Laumann et al. (1994). My sample will include any respondent who indicated same-sex or both-sex, indicating bisexuality, interest on the measures listed above. This produces four measures of homosexuality. However, I only use the three measures discussed earlier to distinguish between homosexually interested adolescents and other adolescents to test this thesis's hypotheses.

Although bisexuality and bisexuals might be less isolated since they engage in sex behaviors more socially approved than homosexuality and homosexuals, I included them in the homosexually interested group. I did this due to the

stigma associated with same-sex sexual behavior and bisexuals often experience the same homophobia that is directed at homosexuals. Operationalizing the homosexually interested adolescents in this manner may produce conservative estimates for their suicide risk. This broader conceptualization and inclusion of bisexuals might include adolescents who are neither self-identified, socially perceived, nor socially presented as homosexual, thus weakening the estimates derived from the statistical analysis.

In the analysis two different groups of homosexually interested adolescents are used. A consistent homosexual interest (CONSIST) is defined as any respondent with same-sex responses to all three of the full sample sexuality variables described above (fantasy combined with gender, sexual attraction and behavioral intent, and sexual identity). An inconsistent homosexual interest (NCONSIST) is defined as any respondent with same-sex response to one or two of the sexuality variables used in the analysis. The remainder of the adolescents in the sample have, by definition a consistent heterosexual interest. Preliminary analysis indicate that this operationalization of homosexual interest is empirically justifiable as the most parsimonious approach with the available data. The distribution of the sexuality component is 29,061 (83.7 percent) heterosexual,

5,465 (15.7 percent) inconsistent homosexual interest, and 184 (0.5 percent) consistent homosexual interest.

Suicide Risk. Suicide risk is measured using two component variables: suicide ideation and suicide attempts (see Table 1). The suicide ideation variable (KILLSELF) asked:

In the past month:

1. I don't have any thoughts about killing myself
2. I have thoughts about killing myself, but I would not carry them out
3. I would like to kill myself
4. I would kill myself if I had the chance

Shaffer et al. (1988) conclude the best predictor of death by suicide is a previous suicide attempt. The suicide attempts variable (SUICIDE) asked:

Have you ever tried to kill yourself:

1. Yes, during the past year
2. Yes, more than a year ago
3. No.

Table 1. Codings of SUICIDE RISK by levels of its component variables.

Suicide Attempts by Suicide Ideation

	no thoughts (1)	causal thoughts (2)	serious thoughts (3)	very serious thoughts (4)	missing value
recent attempt (1)	high (n=337)	high (n=600)	very high (n=342)	very high (n=147)	very high (n=37)
previous attempt (2)	moderate (n=1010)	moderate (n=878)	high (n=152)	very high (n=67)	high (n=53)
no attempts (3)	very low (n=21479)	low (n=5110)	high (n=300)	very high (n=322)	high (n=622)
missing value	low (n=67)	moderate (n=27)	high (n=14)	very high (n=3)	(n=3134)

As depicted in Table 1, the suicide ideation variable and the suicide attempts variable are combined to create a composite suicide risk variable (SUIRISK). The suicide risk variable ranks individuals from very low to very high risk based on suicide ideation and attempt history. The variable was created by coding the suicide attempt (SUICIDE) variable as three (3) for never attempted, two (2) for previous attempt (more than a year ago), and one (1) for recent attempt (within the year). The suicide ideation variable (KILLSELF) was coded as one (1) for no thoughts, two (2) for casual thoughts only, three (3) for serious thoughts, and four (4) for very serious thoughts (see Table 1).

Risk level "very low" indicates that the respondent has no suicide attempt history and does not have any suicide thoughts. Risk level "low" indicates respondent has no suicide attempt history and only has casual suicide thoughts. Also, a missing response on attempt history with no suicidal thoughts indicates a "low" level. A "moderate risk" level is classified in three ways: respondent has 1) a previous attempt, more than a year ago, and no thoughts; 2) previous attempt and only casual thoughts; 3) missing response on attempt history with causal thoughts. There are six ways a respondent is classified as "high" risk: 1) recent suicide attempt and no suicide thoughts; 2) either a recent suicide attempt, within the past year, and casual thoughts; 3) no suicide attempts but has serious thoughts;

4) missing score on attempt history with serious thoughts;
 5) no attempt history with a missing score on suicide ideation; 6) previous attempt and a missing score on suicide ideation. A "very high" risk level is classified in three ways: 1) recently attempted suicide and seriously thinks about suicide; 2) very serious thoughts regardless of attempt history and missing values; 3) a recent attempt and missing value for the ideation variable.

The distribution of the five category suicide risk variable is quite skewed. So, for purposes of analysis, the suicide risk variable is dichotomized. The categories moderate, high, and very high are coded as respondents "at risk" and categories low and very low represent respondents at "no risk". The distribution of the dichotomized suicide risk is 26,656 (76.8 percent) "no risk" and 4911 (14.1 percent) "at risk."

Depressed Mood. Depressed mood will be measured through self reports of respondents' emotional state. I refer to this variable as depressed mood instead of depression since the self-reporting measures provide only a ranking of individuals and do not identify individuals with clinical depression (Petersen, Compas, Brooks-Gunn, Stemmler, Ey, and Grant 1993). Depressed mood (DPRESMD) will be measured using the AHS's emotional risk scale, created from 17 component variables (see Appendix B). All variables were coded so that a high value indicates

depressed mood. These measures were factored analyzed; results indicate three correlated subscales; depressive affect, somatic complaints, and happy mood. These subscales are similar to dimensions commonly confirmed to measure depressed mood (Radloff 1991). The variables were summed resulting in a scale with a range from zero (0) through 74, where 74 would indicate the highest score of depressed mood. The internal consistency of this variable was measured using Cronbach's alpha. The reliability coefficient is $\geq .87$.

Isolation. An adolescent's sense of isolation from the family was measured with items taken from Brunswick et al. (1972, as cited in Blum et al. 1989), Needle et al. (1981, as cited in Blum et al. 1989), and Search Institute (1984, as cited in Blum et al. 1989). Isolation from the family will be measured using the AHS's family integration scale. This variable (FAMCON) was created from the following six items each of which was scored from one (1) = not at all, to five (5) = very much:

- a. parents care about you
- b. you get upset at home (reverse coded)
- c. your family cares about your feelings
- d. people in your family understand you
- e. you and your family have lots of fun
- f. your family pays lots of attention to you.

The scores for the final scale range from six to thirty (30). The internal consistency of this variable was measured using Cronbach's alpha. The reliability coefficient is $\geq .87$. This variable was reverse coded to produce a family isolation variable (FAMISOL).

Other aspects of adolescents' isolation were measured using items developed specifically for the AHS questionnaire. This variable (OTHCON) was created from the following four items each of which was scored from one (1) = not at all, to five (5) = very much:

- a. adults care about you
- b. school people care about you
- c. your friends care about you
- d. church leaders care about you.

The scores for the final scale range from 4 to twenty (20).

The other-connectedness scale (OTHCON) has a Cronbach's $\alpha \geq .78$. This variable was reverse coded to produce a non-familial isolation variable (OTHISOL).

Control Variables. In addition to the above mentioned variables, three variables were selected as control variables: sex, race/ethnicity, and age. These variables were chosen since their influence on suicide risk, as discussed earlier, has been shown in other adolescent suicide studies. By controlling for the influence of sex (GENDER), race/ethnicity (RACE), and age (AGE), a clearer relationship will be revealed between the dependent and independent variables.

The questionnaire asked, "What is your sex? Male or Female." The final sample was almost equally divided by sex, 49.8 percent male and 50.2 percent female. Sex is coded zero (0) for males and one (1) for females.

The questionnaire asked, "Are you: White, Black, Hispanic, American Indian or Alaskan Native, or Asian or Pacific Islander?"

The racial/ethnicity composition of the sample was 86.2 percent (n = 29,158) White, 7.9 percent (n = 2,685) Black, 1 percent (n = 351) Hispanic, 1.7 percent (n = 564) American Indian or Alaska native, 3.2 percent (n = 1,078) Asian or Pacific Islander. Race/ethnicity was dummy coded into four variables to allow for comparisons between whites and racial/ethnic minority groups.

The questionnaire asked, "How old were you at your last birthday?" Age was recorded in years, and ranges from 12 to 20 years old. 98.9 percent being 18 years old or younger.

The model to be estimated is shown in Figure 1. The endogenous variables are two variables measuring isolation (FAMISOL and OTHISOL), depressed mood (DPRESMD), and suicide risk (SUIRISK). The exogenous variables are sex (GENDER), race/ethnicity (RACE), age (AGE), and sexual identity (CONSIST and NCONSIST).

Analysis Plan

The analysis includes inspections of frequencies, correlations, and multivariate analyses employing OLS and logistic regression. OLS regression is used to test the relationships when the dependent variable is continuous. I chose to treat suicide risk as a dichotomized variable thus

logistic regression is required for analysis. Logistic regression estimates the predicted logged odds of an event occurring for a dichotomized dependent variable, in this case suicide risk.

For the dependent variable, I report the predicted odds ratio (O.R.) of being at risk for suicide. Odds ratios of greater than 1.0 indicate that either an increase or a difference, in the case of dummy variables, in the independent variable produces a proportional increase in the predicted odds of the event occurring. Odds ratios of less than 1.0 indicate that either an increase or a difference in the independent variable produces a proportional decrease in the predicted odds of the event occurring. Odds ratios equal to 1.0 indicate that either an increase or a difference in the independent variable produces identical odds of the event occurring.

Due to the large sample size, all analyses will be tested using a significance level of less than or equal to .001 ($p > .001$). The analyses focus on OLS analysis of continuous endogenous variables and a set of nested direct-effects logistic regression models. Each successive model adds potential moderator or mediator variables, allowing an examination of the change in magnitude for the effect of being homosexually interested.

After presenting sample characteristics (Table 2), I present the results for the hypotheses (Table 3a, Table 3b,

Table 4) and conclude with three models for the dependent variable, suicide risk (Table 5). In Table Five, Model One presents the effects of homosexual interest before controlling for any other variables; Model Two presents the effects after demographic variables are added; and, Model Three presents the effects after controlling for isolation and depressed mood.

Table 2. Means and Standard Deviations for all variables.

	Means or (%)	Standard Deviations
Suicide Risk	14.1%	.36
<u>Homosexual Interest</u>		
Consistent	0.5%	.07
Inconsistent	15.7%	.36
<u>Demographics</u>		
Gender		
Male	48.7%	.5
Age	14.9	1.77
Race		
Black	7.7%	.27
Hispanic	1.0%	.10
Native American	1.6%	.13
Asian	3.1%	.17
<u>Isolation</u>		
Family Isolation	9.38	4.24
Other Isolation	5.68	2.51
<u>Depression</u>		
Depressed Mood	28.37	39.48

N = 29,454

Table 3a. Results of OLS Regression Predicting Isolation from Family (FAMISOL) using Demographic Background Variables and Homosexual Interest.*

	<u>b</u>	<u>Standard Error</u>
AGE	.204**	.014
GENDER		
Male = 0	.108	.049
RACE		
Black	-.304	.101
Hispanic	.450	.253
Native American	.779**	.204
Asian	.878**	.152
HOMOSEXUAL INTEREST		
Consistent	.978	.351
Inconsistent	.013	.070
CONSTANT	6.214	.217

Adjusted $R^2 = .009$ **

N = 29,454

* Unstandardized regression coefficients are shown.

** $p > .001$

of the homosexually interested group could minimize the effects, thus explaining the lack of an effect on familial isolation.

Table 3b presents results for isolation from non-family. Older adolescents are significantly more isolated from non-family members than younger adolescents ($b = .111$). Similar to family isolation, girls and boys are not significantly different on non-family isolation. Native American and Asian adolescents experience greater isolation from non-family members than Whites adolescents ($b = .934$ and $.526$, respectively). Black adolescents, on the other hand, are significantly less isolated from non-family members when compared with White adolescents ($b = -.535$). There is no difference between Hispanic adolescents and Whites. Adolescents with consistent homosexual interest are significantly more isolated from non-family than heterosexual adolescents ($b = .775$). Non-family people interact with adolescents in specific roles, thus are more likely to be viewed as unidimensional by adolescents. As one dimensional characters, non-family members can be viewed as representatives of social institutional ideologies instead of people. In comparison, adolescents might receive more encouragement and nurturance from parents, since the parents interact with the adolescent on a broader basis than a non-family member. Adolescents with a consistent homosexual interest by compartmentalizing their sexuality

can still feel connected with their families while feeling distanced because of their sexuality.

Depressed Mood. Do homosexually interested adolescents experience a more depressed mood than heterosexual adolescents? As shown in Table Four, the only variable significantly related to depressed mood is age. Older adolescents score higher on the depressed mood scale than younger adolescents. Hypothesis Two is not supported by the data. Homosexually interested adolescents appear not to experience greater depressed mood than heterosexual adolescents. The low R^2 scores can partly be explained by the use of dichotomized predictor variables. Also, Adcock et al. (1991) conclude that many adolescents have difficulty dealing with depression and engage in risk taking behaviors; adolescents engaging in various types of risk taking behavior are at greater risk for suicide. The inclusion of risk taking variables is likely to improve the explanatory power as well.

Table 3b. Results of OLS Regression Predicting Isolation from Other (OTHISOL) by using Demographic Background Variables and Homosexual Interest.*

	<u>b</u>	<u>Standard Error</u>
AGE	.111**	.008
GENDER		
Male = 0	-.033	.029
RACE		
Black	-.535**	.059
Hispanic	.413	.149
Native American	.934**	.121
Asian	.526**	.090
HOMOSEXUAL INTEREST		
Consistent	.775**	.207
Inconsistent	.093	.041
CONSTANT	4.004	.128

Adjusted R^2 = .013**

N = 29,454

* Unstandardized regression coefficients are shown.

** $p > .001$

Table 4. Results of OLS Regression Predicting Depressed Mood (DPRESMD) by using Demographic Background Variables and Homosexual Interest.*

	<u>b</u>	<u>Standard Error</u>
AGE	.695**	.099
GENDER		
Male = 0	.784	.343
RACE		
Black	-.487	.705
Hispanic	1.153	1.768
Native American	1.706	1.430
Asian	.769	1.066
HOMOSEXUAL INTEREST		
Consistent	1.457	2.458
Inconsistent	-.092	.487
CONSTANT	16.894	1.521

Adjusted $R^2 = .002^{**}$

N = 29,454

* Unstandardized regression coefficients are shown.

** $p > .001$

As expected the association between isolation and depressed mood, though weak, is positive and significant. Isolation has a positive relationship with depressed mood. The correlation coefficient for family isolation and depressed mood equals .083. The correlation coefficient for non-family isolation and depressed mood equals .079. The full correlation matrix for all variables can be found in Appendix C.

Adolescent Homosexual Interest Effects on Suicide Risk

Hypotheses Four, Five, and Six were tested using logistic regression (see Table 5). After controlling for demographic background, isolation, and depressed mood are homosexually interested adolescents at a higher risk for suicide than others? Before controlling for the mediating effects of demographic variables, isolation, and depressed mood (see Table 5, Model 1), adolescents with a consistent homosexual interest have over three and a half times the odds for suicide risk compared to adolescents with a heterosexual interest. In contrast, adolescents responding with an inconsistent homosexual interest are only 1.17 times as likely as heterosexual adolescents to be at risk for suicide.

Table 5. Predicted Odds of Being at Risk for Suicide

	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>
<u>Homosexual Interest</u>			
Consistent	3.534*	3.448*	3.112*
Inconsistent	1.168*	1.138	1.131
<u>Demographics</u>			
Age (years)		1.034*	1.008
Gender (Female=1)		1.679*	1.716*
Race			
Black		1.286*	1.382*
Hispanic		1.740*	1.612
Native American		1.739*	1.495*
Asian		1.407*	1.224
<u>Isolation</u>			
Family Isolation			1.097*
Other Isolation			1.108*
<u>Depression</u>			
Depressed Mood			1.003*
Model Chi-square	57.069*	372.997*	1758.491*

N = 29,454

* p > .001

Adding Demographic Information. Model Two introduces the cluster of demographic background variables into the logistic regression analysis (see Table 5, Model 2). Consistent with previous research, age, gender, and race significantly predict suicide risk. Older adolescents have slightly higher odds for suicide risk than younger adolescents (O.R. = 1.03). Girls have a higher likelihood of suicide risk than boys (O.R. = 1.68). All racial and ethnic groups are at higher suicide risk than whites. Compared to White adolescents, Black adolescents' are over one and a quarter times as likely to be at risk for suicide (O.R. = 1.29), Asian adolescents' have a likelihood of almost one and a half times that of Whites (O.R. = 1.41) and, Hispanic and Native American adolescents' are at almost one and three quarters more likely to be at risk for suicide risk (O.R. = 1.74, 1.73, respectively).

For adolescents with inconsistent homosexual interest, the demographic variables slightly reduce the effects of an inconsistent homosexual interest on suicide risk (from O.R. = 1.17 to O.R. 1.14). The likelihood of suicide risk for adolescents with inconsistent homosexual interest is no longer significantly higher than heterosexual adolescents. The demographic variables reduce the relationship between consistent homosexual interest and suicide risk by only a little more than 2 percent, from an odds ratio of 3.53 to 3.45. Adolescents with consistent homosexual interest are

Native American adolescents are still at greater odds for suicide risk compared to Whites (O.R. = 1.38 and 1.50, respectively). Control for isolation and depressed mood reduce the effects of age and Hispanic and Asian ethnicity to non-significance.

Although isolation and depressed mood do significantly predict suicide risk, controlling for these variables only reduces the effect of consistent homosexual interest by about 10 percent (from O.R. = 3.45 to O.R. = 3.11). Adolescents with consistent homosexual interest still have over three times the odds of suicide risk of heterosexual adolescents.

CHAPTER 5

DISCUSSION

Using a representative sample of adolescents, six hypotheses are explored in this thesis: 1) homosexually interested adolescents will experience greater isolation than heterosexual adolescents; 2) homosexually interested adolescents will experience greater depressed mood than heterosexual adolescents; 3) isolation will have a positive relationship with depressed mood, for the total sample; 4) isolation will have a positive relationship with suicide risk, for the total sample; 5) depressed mood will have positive relationship with suicide risk, for the total sample; and 6) homosexually interested adolescents, after controlling for isolation, depressed mood, race, age, and sex, will be at greater risk for suicide than heterosexual adolescents.

Adolescents consistently homosexual in their behavioral intentions, fantasies, and attractions were significantly less connected to non-family members in their communities. This higher level of isolation could be accounted for based on the institutional roles that the church, school, or town's people fulfill. These adults could be perceived by homosexually interested adolescents as representing the ideologies of these institutions, rather than as individuals.

In contrast, homosexually interested adolescents were not significantly more isolated from their families compared

with heterosexual adolescents. This finding could be partially explained by structural and cultural features of the family. The family maintains much more personal and intimate relationships, thus giving love and support in other areas of homosexually interested adolescents' lives. Also, strong cultural norms enforce the ideas that family ties are the most important, and that families always accept their own. Such cultural features might explain why homosexually interested adolescents were not more isolated from family members than heterosexual adolescents.

Based on the analysis, homosexually interested adolescents are not significantly more depressed than other adolescents. It appears that adolescents with an inconsistent homosexual interest have not committed to a stigmatized identity and may not be perceived as homosexual, thus their depressed mood scores are not significantly different from heterosexual adolescents. Also, sample bias might account for part of this finding, those adolescents with the most severe cases of depressed mood might not have been surveyed due to student absenteeism.

After control for measures of isolation and depressed mood, consistent homosexually interested adolescents still are over three times more likely to experience suicide risk than heterosexual adolescents. As expected, the findings suggest that there is more involved with suicide risk and homosexually interested adolescents than isolation and

depressed mood. Other aspects of homosexually interested adolescents' lives need to be included for more complete explanations of the problem.

A number of variables are associated with suicide and suicide risk, but are not clearly associated with homosexual interest. Some variables that might help better explain differences in the risk of suicide for homosexually interested and heterosexual adolescents include physical and sexual abuse, substance use (Adcock et al. 1991), early sexual intercourse experience (Adcock et al. 1991), locale (urban v. rural) (Adcock et al. 1991), parents' marital status, family's socioeconomic status (Curran 1986), delinquency, and school performance (Curran, 1986). Also, the complexities of growing up with homosexual identities, fantasies, and attractions may not be fully revealed through questionnaires. The scope of available questions is probably too narrow in their emphasis. Future research should examine, for example, perceived stigmatization.

Gaps in the Existing Research

The research concerning homosexually interested adolescents and suicide risk is in its early stages and much about how to reduce the suicide risk for these adolescents still remains unidentified and unexplored. We still know very little regarding the social maturation process for homosexually interested adolescents. We know what

activities are being undertaken by homosexually interested adolescents but not why. A holistic understanding of homosexually interested adolescents lives is still missing.

There are several gaps in the research on gay and lesbian adolescent suicide. One area of research that needs further exploration is the use of "passive" forms of suicide. For example, eating disorders, substance dependency, running away, prostitution, and unsafe sex practices are self destructive behaviors that can result in reduced social and economic participation, and even death. For example, at one STD clinic the prevalence of the Human Immunodeficiency Virus (HIV) in young male homosexuals was almost three times that found in other clients in the same age range, 20 to 24 years old (Taylor and Remafedi 1993).

Another area of research that needs further exploration is the intersection of same-sex sexuality suicide risk and geography. The majority of gay, lesbian, and bisexual cultures and communities are confined to highly urban areas (Laumann et al. 1994). What is the likelihood of having higher suicide risk living in an urban area compared to a rural one? How does the specific social landscape affect the suicide risk for homosexually interested adolescents?

Also, homosexually interested adolescents become very "homogenized" in the research in order to have a large enough sample of subjects. Further research needs to explore the intersections of same-sex sexuality, gender, and

class. For example, what factors are involved in the suicide risk of an African American lesbian adolescent in the inner city compared to the rural white gay adolescent?

This thesis does not distinguish between sexuality, sexual identity, sexual object choice, and desire. However, further analyses should address the distinct contributions these dimensions of sexuality may make to same-sex sexuality suicide risk. For example, does sexual object choice have a greater effect than sexual identity on same-sex sexuality suicide risk?

Research Problems with Gay and Lesbian Adolescents

For three broad reasons this much needed research continues to be difficult to conduct. First, social scientists are just beginning to overcome the institutionalized homophobia of academe. Funds and colleague support for those interested in pursuing this research are limited; funds for research dealing with the nurturance and protection of gay men, lesbian women, and bisexual people are particularly limited.

Second, in terms of data collection the problem of locating gay and lesbian adolescents persists. Although adolescents may have internalized their sexuality, they still may not have told their parents, thus parental consent for participation in surveys will be unavailable.

Recruiting gay and lesbian adolescents will be difficult due

to lack of organizations and newspapers for this population.

Third, adolescents with a gay, lesbian, or bisexual identity are going to be different from those adolescents who have had sexual activity with members of the same sex or both sexes but do not consider themselves gay or lesbian. Gay and lesbian adolescents will begin to identify with a community and start to seek out other gay and lesbian people for friendship and dating. Still, it is not known just how effective these friendships are in fulfilling a broad spectrum of supportive functions (Saunders and Valente 1987). On the other hand, adolescents who engage in same-sex activity but refuse the gay, lesbian, or bisexual identity may perceive their sexuality much differently, thus affecting their responses to mental health questions. These problems complicate the task of obtaining accurate information about gay, lesbian, bisexual, and homosexually interested adolescents.

Suggestions for Structural Change

For homosexually interested adolescents brought up within a society that consistently distorts and denies information concerning gay men, lesbian women, and bisexual people the internalization of the misinformation is highly detrimental. There is much that needs to be done to reduce the suicide risk for homosexually interested adolescents. The institutions that perpetuate the distortion and

exclusion of homosexuals need to be reorganized. These institutions need to include gay men, lesbian women, and bisexual people and allow the distribution of accurate information about homosexuality and gay men, lesbian women, and bisexual people.

For example, religious institutions' acceptance of homosexuals as part of the contributing congregation is needed. The presence of gay men and lesbian women in the church should be revealed, and their contributions be accurately reflected. Also, the government's repeal of sodomy laws and laws that preserve traditional notions of the family, as well as the enactment of civil rights legislation that protects gay men and lesbian women might assist in reducing the differential suicide risk for gay and lesbian adolescent. The government's role in protecting gay men and lesbian women could greatly influence the open participation of gay men and lesbian women in the community and work, thus, increasing the visibility of gay men and lesbian women in our society.

Family members' acceptance of their lesbian and gay children and siblings, along with the restructuring of the family institution to allow for gay and lesbian couples and parents will provide more role models for adolescents. Similarly, changes are needed in the educational system: sensitizing faculty and staff to the needs of homosexually interested adolescents; allowing the presence of gay and

lesbian teachers in the classroom; and incorporating gay, lesbian, and bisexual positive information in the curriculum. These changes will probably reduce the suicide risk of gay and lesbian adolescents, as well. If schools and churches provide a safe place for gay, lesbian, and bisexual students to meet and interact with each other, they will have a more positive environment to mature healthfully and interact with a broader spectrum of homosexual adolescents than is possible with current institutional ideologies. Promoting the accurate portrayal of gay men and lesbian women in society, and government legislation that protects their status, would provide a more well rounded and accurate image of gay men and lesbian women for homosexually interested adolescents. Increasing the visibility of gay men and lesbian women would allow homosexually interested adolescents real role models in their lives. Accurate information, that challenges the erroneous information currently available would facilitate the dismantling of the heterosexist ideologies that parents, clergy, teachers, and politicians continue to promote. This could offer homosexually interested adolescents more people to turn to for help and a stronger sense of self. All would assist in reducing the suicide rate among gay and lesbian youths.

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Appendix A.

Pearson Correlation Matrix for Continuous Variables in
Sexuality Component

	Gender/Fantasy	Sexual Attraction and Intent
Gender/Fantasy	1.000	
Sexual Attraction and Intent	.070*	1.000
Sexual Identity	.151*	.149*

N = 29,454

* $p > .001$

Appendix B.

Depressed Mood Questions

1. How have you been feeling in general (during the last month).

In an excellent mood
In a very good mood
My moods have been up and down a lot
In a bad mood
In a very bad mood

2. Have you been bothered by nervousness or 'nerves' (during the past month).

Extremely so
Quite a bit
Some, enough to bother me
A little
Not at all

3. Have you felt in control of your behavior, thoughts, emotions, or feelings (during the past month).

Yes, for sure
Yes, sort of
Not very much
No, and it bothers me a little
No, and it bothers me a lot

4. Have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile (during the past month).

Extremely so
Quite a bit
Some, enough to bother me
A little
Not at all

5. Have you felt you were under any strain, stress, or pressure (during the past month).

Yes, almost more than I could take
Yes, quite a bit of pressure
Yes, some/more than usual
Yes, a little/about usual
Not at all

6. How happy or satisfied or pleased have you been with your personal life (during the past month).

Extremely happy
Very happy
Satisfied, pleased
Somewhat dissatisfied
Very dissatisfied

7. Have you worried that you might be losing your mind or losing control over the way you act (during the past month).

Not at all
A little bit
Some, enough to bother me
Quite a bit
Very much so

8. Have you been waking up fresh and rested (during the past month).

Every day
Most every day
Less than half the time
Rarely
None of the time

9. Have you been bothered by any illness, bodily disorder, pains, or fears about your health (during the past month).

All the time
Most of the time
Some of the time
A little of the time
None of the time

10. Has your daily life been full of things that were interesting to you (during the past month).

All the time
Most of the time
Some of the time
A little of the time
None of the time

11. Have you felt sad during the last month.

All the time
Most of the time
Some of the time
A little of the time
None of the time

12. Have you been feeling emotionally secure and sure of yourself (during the past month).

All the time
Most of the time
Some of the time
A little of the time
None of the time

13. Have you felt anxious, worried, or upset (during the past month).

All the time
Most of the time
Some of the time
A little of the time
None of the time

14. Have you felt tired, worn out, burned out, or exhausted (during the past month).

All the time
Most of the time
Some of the time
A little of the time
None of the time

15. How relaxed or tense have you felt (during the past month).

Responses ranged from 1 "very relaxed" to 7 "very tense."

16. How much energy, pep, and vitality have you felt (during the past month).

Responses ranged from 1 "no energy at all, listless" to 7 "very energetic, dynamic."

17. How depressed or cheerful have you been (during the past month).

Responses ranged from 1 "very depressed" to 7 "very cheerful."

Appendix C.

Pearson Correlation Matrix

	Consistent	Inconsistent	Gender
Homosexual Interest			
Consistent	1.000		
Inconsistent	-.029*	1.000	
Gender	-.007	.034*	1.000
Race			
Black	-.002	.021*	.023*
Hispanic	.008	.008	.001
Native American	.016	.001	.001
Asian	.040*	.096*	-.008
Age	.012	-.115*	-.026*
Family Isolation	.019*	-.006	.010
Other Isolation	.025*	.006	-.010
Depressed Mood	.004	-.005	.012
Suicide Risk	.045*	.019*	.091*

N = 29,454

* p > .001

	Race Black	Race Hispanic	Race Native American
Race			
Black	1.000		
Hispanic	-.025*	1.000	
Native American	-.031*	-.012	1.000
Asian	-.043*	-.016	-.020*
Age	-.019*	-.004	.002
Family Isolation	-.021*	.010	.022*
Other Isolation	-.057	.016	.046*
Depressed Mood	-.005	.004	.007
Suicide Risk	.023*	.022*	.027*

N = 29,454

* p > .001

	Race	Age	Family
	Asian		Isolation
Race			
Asian	1.000		
Age	.003	1.000	
Family Isolation	.035*	.085*	1.000
Other Isolation	.038*	.078*	.561*
Depressed Mood	.004	.041*	.083*
Suicide Risk	.023*	.017	-.208*

N = 29,454

* p > .001

	Other Isolation	Depressed Mood	Suicide Risk
Other Isolation	1.000		
Depressed Mood	.079*	1.000	
Suicide Risk	.178*	.065*	1.000

N = 29,454

* p > .001