



SCHOOL of
GRADUATE STUDIES
EAST TENNESSEE STATE UNIVERSITY

East Tennessee State University
Digital Commons @ East
Tennessee State University

Electronic Theses and Dissertations

Student Works

5-2012

Examining Differences in Stress Symptoms Based on Sexual Orientation

Ashley Danielle Dickson
East Tennessee State University

Follow this and additional works at: <https://dc.etsu.edu/etd>



Part of the [Gender and Sexuality Commons](#)

Recommended Citation

Dickson, Ashley Danielle, "Examining Differences in Stress Symptoms Based on Sexual Orientation" (2012). *Electronic Theses and Dissertations*. Paper 1420. <https://dc.etsu.edu/etd/1420>

This Thesis - Open Access is brought to you for free and open access by the Student Works at Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact digilib@etsu.edu.

Examining Differences in Stress Symptoms Based on Sexual Orientation

A thesis

presented to

the Faculty of the Department of Psychology

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Masters of Arts in Psychology

by

Ashley Danielle Dickson

May 2012

Dr. Stacey Williams, Chair

Dr. Ginni Blackhart, Committee Member

Dr. Chris Dula, Committee Member

Keywords: Stress, Anxiety, Identity, Sexual Orientation, Homosexuality, Stigma

ABSTRACT

Examining Differences in Stress Symptoms Based on Sexual Orientation

by

Ashley Danielle Dickson

The present study examined stress symptoms in relation to self-identified sexual orientation and identity-related constructs among gays and lesbians. Multiple identity constructs have played a significant role in determining anxiety levels in ethnic minorities but have not been examined among gays and lesbians. Secondary data analysis was conducted on a sample of participants who completed an online survey “Study of Attitudes about Sexual Orientation.” Results indicated homosexuals reported higher levels of public and self-stigma and lower public regard than heterosexuals. Additionally, higher self-stigma and lower private regard about sexual orientation were related to increased stress. Finally, gays and lesbians reported lower private regard and increased self-stigma in relation to public regard and stigma. Findings highlight that public perceptions about sexual orientation impact self-views, and that self-views relate to increased stress. Interventions should aim to reduce negative public regard about homosexuality and the impact of public views on the self.

ACKNOWLEDGEMENTS

First off, I would like to acknowledge Dr. Stacey Williams, associate professor at East Tennessee State University and my graduate mentor. I would like to recognize her exceptional guidance and help through my journey obtaining a master's degree in Psychology. We played many revision games and both spent late nights reviewing the work. I greatly appreciate all the help, guidance, support, and encouragement she has provided.

Secondly, I would like to recognize Dr. Ginni Blackhart and Dr. Chris Dula for being a part of my thesis committee and providing critical feedback to improve my thesis.

At last, but not at least, I would like to thank my family for their support and encouragement while furthering my education and surviving through my bad attitudes due to sleepless nights of thesis writing.

Thank you all so much!!! I couldn't have made it without you all.

CONTENTS

	Page
ABSTRACT.....	2
ACKNOWLEDGEMENTS.....	3
LIST OF TABLES.....	6
Chapter	
1. INTRODUCTION	7
Stress and Sexual Orientation.....	8
Explanations of Increased Stress Among Gays and Lesbians.....	9
Stigma.....	9
Regard.....	13
Concealable Identity.....	15
Possible Buffers of Stress among Gays and Lesbians.....	17
Social Support.....	17
Centrality of Sexual Identity.....	18
Hypotheses.....	19
2. METHOD.....	21
Sample and Procedure.....	21
Measures.....	24
Sexual Orientation.....	24
Multidimensional Inventory of Black Identity (adapted).....	24
Perceived Stigma Scale.....	26
Perceived Stress Scale.....	26

Multidimensional Scale of Perceived Social Support.....	28
Demographics and Covariates.....	28
Analysis.....	30
3. RESULTS.....	33
Differences Among Sexual Orientation.....	33
Preliminary Analyses.....	34
Public Views and Private Regard.....	35
Public Views and Self-Stigma.....	35
Self-Views and Mental Health.....	35
Centrality as a Moderator.....	36
Social Support as a Moderator.....	37
4. DISCUSSION.....	40
Limitations.....	45
Conclusion.....	46
REFERENCES.....	48
APPENDIXES.....	56
Appendix A: The Multidimensional Black Identity Inventory (adapted).....	56
Appendix B: Multidimensional Scale of Perceived Social Support.....	57
Appendix C: Perceived Stress Scale	58
Appendix D: Perceived Stigma Scale	59
Appendix E: Demographics Portion of the Survey	60
Appendix F: Outness Inventory	61
VITA.....	62

LIST OF TABLES

Table	Page
1. Descriptives of the Sample.....	23
2. Descriptive Statistics and Correlations Among Main Study Variables Among Homosexual Participants.....	30
3. Mean Differences in Stress, Regard, and Stigma Between Heterosexuals and Homosexuals.....	33
4. Regression Analysis-Main Effects of Public Regard and Public Stigma on Self-Stigma; Public Regard and Public Stigma on Private Regard; and Private Regard and Self-Stigma on Stress.....	34
5. Regression Analysis-Main & Moderating Effects of Centrality on Private Regard and Self-Stigma.....	38
6. Regression Analysis-Main & Moderating Effects of Social Support on Private Regard and Self-Stigma.....	39

CHAPTER 1

INTRODUCTION

Attitudes and behaviors toward gays and lesbians range from complete acceptance and tolerance to condemnation and severe oppression (Borgman, 2009). In the recent past, “for individuals raised in American society today, a rule frequently learned at an early age is that same-sex sexual feelings or contacts are taboo, unacceptable, or evil” (Weis & Dain, 1979, p.353). And despite growing tolerance, homosexuality still is considered deviant by much of secular society and immoral by religious institutions (Kozloski, 2010; Wagner, Serafini, Rabkin, Remien, & Williams, 1994). Homosexuality is a widely stigmatized identity, and gays and lesbians are susceptible to discrimination and hate crimes (Herek, 2000). Lesbians and gay men face a considerable amount of discrimination ranging from verbal behaviors of dislike to violent attacks in the United States (Herek, 1988).

Because of the negative attitudes they face from society, gays and lesbians might experience higher levels of stress than heterosexuals. For example, individuals may internalize negative views or stigma about homosexuality, increasing anxiety and stress. The present study is focused on levels of stress symptoms based on stigma and takes the literature a step further by examining identity-related variables as well as stigma as predictors of stress (as well as of self-stigma and private regard). It has been found that identity constructs play a significant role in determining anxiety levels in ethnic minorities, but these constructs have not been examined in gays and lesbians. This study is unique because it is designed to integrate perceived stigma with identity variables, applying Black identity theory to homosexuality. Further, I considered that the impact of identity and stigma on anxiety and stress might be moderated by other factors such as social support or the centrality of one’s sexual identity in this study.

Stress and Sexual Orientation

Because homosexuality is a controversial issue within our culture and is categorized by some people as a deviant behavior, those who identify as gay or lesbian likely are more psychologically distressed than heterosexuals who conform to society's norm (Igartua, Gill, & Montoro, 2003). Indeed, across age and across specific indicators of psychological distress, it appears that gays and lesbians are at increased risk (Cochran, Sullivan, & Mays, 2003; Gilman, et al., 2001; Igartua et al., 2003; Mays & Cochran, 2001; Meyer, 1995; Meyer, 2003; Pachankis & Goldfried, 2006; Quinn & Chaudoir, 2009; Rosario et al., 2002). In this study the literature on anxiety and other psychological distress features is reviewed in order to make the case for increased stress resulting from stigma. Thus, in this study *stress* refers to the psychological impact of an event such as stigma that result in physical or mental tension.

Gay and lesbian youth have been shown to have a higher risk of psychological distress including depression, anxiety, and suicidality than heterosexual youths (Rosario et al., 2002). Some say there is heightened stress when young people begin to realize sexuality in the adolescent years (D'Augelli, 1996; Riley, 2010). Research shows that many gay men and lesbians continue to have higher psychological distress in terms of anxiety, depression, suicidality, and diminished self-esteem rates in adulthood than their heterosexual counterparts (Gilman et al., 2001; Igartua et al., 2003; Mays & Cochran, 2001; Meyer, 1995; Meyer, 2003; Pachankis & Goldfried, 2006; Quinn & Chaudoir, 2009). Cochran, Sullivan, and Mays (2003) observed higher prevalence on all mood, anxiety, and substance use disorders among gay men and lesbians when compared with heterosexuals of the same gender. Thus, psychological distress is an issue among gay men and lesbians throughout their lifespan.

Sexual minorities likely experience greater psychological distress than heterosexuals because of their stigmatized identity (Riley, 2010). Rosario et al. (2002) theorize that the unique stressors for gays and lesbians in a homophobic society are a primary reason for the higher levels of anxiety in homosexual youth. Miresghi and Matsumoto (2008) found that perceiving one's culture as homophobic was associated with higher levels of depression and perceived stress in the United States among gay men and lesbians.

Indeed, individuals belonging to a minority group (e.g., homosexuals) experience much more stigma and hostility from society than the majority group, which can create more stress within the individual's life (Meyer, 1995). This elevated stress, labeled *minority stress*, places them at a higher risk for health problems, both physical and psychological (Mays & Cochran, 2001; Meyer, 1995, 2003). It is theorized that minority stress develops because of the stigma and discrimination encountered because of minority status whether based on race, gender, or sexual orientation (Brooks, 1981). Therefore, one could presume that gays and lesbians would suffer from more psychological distress than heterosexuals. In line with minority stress theory, the following literature review provides evidence for stigma and identity-related constructs as explanations for increased stress.

Explanations of Increased Stress among Gays and Lesbians

There are several possible explanations for the higher stress among gays and lesbians such as stigma (including public and self), negative regard (negative public attitudes), and the general impact of holding a concealable identity. In this thesis the focus is stigma and regard.

Stigma. An identity is stigmatized if it is considered a mark of failure or shame; therefore, the stigma discredits the self in the eyes of others (Goffman, 1963). Stigma can be concealed (homosexuality) or visible (e.g., physical disability). In addition stigma can be

differentiated by its public and private components. *Public stigma* is defined as the negative reactions and discrimination individuals experience from others due to their membership in the minority group (Corrigan, 2004). *Self-stigma* refers to the extent to which individuals stigmatize themselves for being a member of the minority group (Herek, Gillis, & Cogan, 2009; Quinn & Chaudoir, 2009) or the internalization of public stigma as self-stigma (Vogel, Wade, & Hackler, 2007). Thus, self-stigma also illustrates that public attitudes or regard about one's group can impact one's private beliefs or regard.

Individuals with minority status based on race, religion, mental illness, or sexual orientation often have experiences of discrimination or public stigma that majority individuals do not. Indeed, past literature has shown that gays and lesbians are frequently victims of discrimination in many important domains of life (Herek, 1988; Mays & Cochran, 2001; Pachankis, Goldfried, & Ramrattan, 2008). As a group they experience discrimination in housing and public accommodations, are fired from jobs more, denied scholarships, hassled by police, and often receive inferior medical care at higher levels as compared to heterosexuals (Herek, 2009; Mays & Cochran, 2001; Pachankis et al., 2008). Homosexual parents are often discriminated and told they are unfit parents because of their sexual preference and occasionally lose custody of their children (Herek, 1988).

Gays and lesbians are also more likely to experience daily discrimination such as being harassed or insulted, being treated as inferior, and being regarded with mistrust, fear, and disrespect solely because of their same-sex attraction (Mays & Cochran, 2001; Pachankis et al., 2008). Although all people worry about being accepted by peers and being ridiculed because they are different from society in some way, many gays and lesbians experience more intense, frequent anticipation because their sexual orientation is often perceived as being immoral within

our society (Loftus, 2001; Olson, Cadge, & Harrison, 2006). When individuals begin to show outward signs of their homosexuality in the teenage to early adulthood years, they experience more ridicule and bullying beginning in adolescence than heterosexual peers (Hershberger & D'Augelli, 1995). The ridicule and bullying can lead to heightened anxiety, stress, and arousal levels accompanied by low self-esteem as well as higher self-stigma.

Society's negative views of nonheterosexual orientation can produce internalized homophobia in gay and lesbian individuals (Herek, 2004). Literature has shown that individuals with mental illness who experience stigma from society internalize the negative attitudes and expect the negative evaluations from the public (Lundberg, Hansson, Wentz, & Bjorkman, 2007). Homosexual individuals, because they face discrimination from society as well, would very possibly internalize these negative attitudes and behaviors. Internalized heterosexism often results when individuals grow up in a predominantly heterosexist environment because the gays and lesbians assimilate and internalize the majority view and public stigma into their self-schema, which could lead to a devalued sense of self (Rosario et al., 2002).

Whether public or self, stigma is associated with a host of negative sequelae. Stigma can create a barrier to seeking professional mental health treatment (Link, 1987), can diminish performance on tasks for minorities when threats of stigma are introduced, as well as affect the individual psychologically because of the feeling of inferiority (Spencer, Steele, & Quinn, 1999). Although stigma can affect many different life outcomes (e.g., employment, housing, educational achievement), researchers have primarily focused on psychological outcomes such as self-esteem, life satisfaction, happiness, depression, and anxiety.

Rosario (2002) and fellow researchers found evidence that gay-related stressors (such as gay-related stressful events; negative attitudes toward same-gender sexual orientation; and

discomfort about same-gender sexual orientation) predicted various forms of emotional and behavioral problems (e.g., anxiety, depression, and conduct disorders). One of the most common findings in the literature is that many gays and lesbians are characterized by considerable anxiety and guilt concerning sexual behavior (Haynes & Oziel, 1976; Kraft, 1967; Rowen & Malcolm, 2002; Ven, Bornholt, & Bailey, 1996). Many gay men and lesbians share society's negative attitudes regarding homosexuality to some extent because they were raised with a general expectation by family and society that they would be heterosexual and that homosexuality is wrong.

In America perceiving one's culture as homophobic is associated with higher levels of depression and perceived stress and lower self-esteem (Miresghi & Matsumoto, 2008). Meyer (1995) states that internalized homophobia is related to demoralization, guilt, suicide, sexual problems, and a severe negative impact of antigay violence and discrimination. As well, Pachankis et al. (2008) and researchers found a significant link between internalized homophobia and psychological distress, particularly depressive and anxious symptoms. Thus, self-stigma would increase psychological distress because the stigmatized individual holds negative views toward the group he or she belongs to, which reflects on them personally (Quinn & Chaudoir, 2009).

Finally, some researchers have labeled *perceived stigma* as the combination of expectations of discrimination and devaluation from society and personal negative feelings about the stigma (e.g. homosexuality). Examples include embarrassment, shame, or perceived deviance and the individual's perception of being treated differently by the public (Mickelson & Williams, 2008). Thus, perceived stigma is a combination of both public and self-stigma or internalized negative self-views (Mickelson & Williams, 2008). Past research has shown a significant link

between perceived stigma and depression or emotional distress (Baxter, 1989; Mickelson & Williams, 2008). Perceived stigma has been shown to be positively linked to depression in many populations such as HIV/AIDS patients (Crandall & Coleman, 1992), family caregivers of HIV-infected women (Demi, Bakeman, Moneyham, Sowell, & Seals, 1997), and parents of mentally handicapped children (Baxter, 1989). Therefore, this positive relationship between perceived stigma from society and emotional distress can be inferred for homosexual individuals.

Regard. Another possible explanation for increased stress among those who identify as gay and lesbian is regard. There are two types of regard described in the Black Identity theory, public regard and private regard (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). *Private regard* is referred to as the private view of the group, the way the individual feels positively or negatively about the group and his or her membership in that group (Sellers et al., 1997); whereas *public regard* refers to the extent to which individuals feel that others view the minority group positively or negatively (Sellers et al., 1997).

Regard can affect many dimensions of an individual's life including psychological well-being, social interaction, and self-esteem. In ethnic studies literature has shown that an individual's regard affects an individual's anxiety and psychological functioning (Sellers et al., 1997). Regard directly affects social interaction; positively regarded individuals would have more friends and interact more with others in society as well as be more positively regarded by others in society (Carter & Feld, 2004). In contrast, negatively regarded individuals are likely to be avoided socially and have fewer friends, maintaining smaller personal networks (Carter & Feld, 2004; Goffman, 1963).

For the purpose of the study the concepts of stigma and regard are distinguished given that they are similar constructs involving the views on the stigmatized identity. In this study, I

proposed that public and self-stigma are related to public and private regard. *Regard* is the way individuals and the public view the stigmatized identity, whereas *stigma* is the way individuals view themselves as a member of the group and how the public stigmatizes them for being a member of that group. More specifically, *private regard* is the private view of the group, the way that the individual feels positively or negatively about the group and his or her membership in that group (Sellers et al., 1997). *Self-stigma* is the private view of the self or the way the individual feels for being a member of the stigmatized group, such as whether he or she feels ashamed for the group identity. *Public regard* is similar to the concept of cultural or public stigma. But *public regard* is the extent to which individuals feel that others view the minority group positively or negatively (Sellers et al., 1997), while *Public stigma* refers to the level of social devaluation constructed outside the self by society views and being rejected because of membership within a minority group (Frable, Platt, & Hoey, 1998; Quinn & Chaudoir, 2009).

Gays and lesbians may not only anticipate stigma and fear rejection for not satisfying the heterosexual standard leading to increased stress level (Igartua et al., 2003) but also perceive negative regard both publicly and privately. Currently a large portion of U.S. society is characterized by especially high level of heterosexism (e.g., Herek, 1986; Herek et al., 2009). Heterosexism can be defined as an assumption that all people are heterosexual, which works to the disadvantages of sexual minority groups in institutional practices (Herek et al., 2009). Heterosexism creates a hostile environment for gays and lesbians and arises in part because society feels threatened by homosexuality because it conflicts with the heterosexual expectations (Leitner & Cado, 1982; Schulte & Battle, 2004). Negative attitudes toward homosexuality are linked to greater perceived dissimilarity in values between homosexuality and heterosexuality

(Haddock, Zanna, & Esses, 1993). The AIDS epidemic also has been linked to the heightened fear of homosexuals (Britton, 1990).

There are psychosocial implications to perceiving negative regard. When individuals perceive that others hold negative evaluations of their group, they have decreased psychological well-being (Quinn & Chaudoir, 2009). This effect has been demonstrated with several stigmatized identities including black identity (Sellers et al., 1997) and mental illness (Corrigan, Larson, & Kuwabara, 2010). Previous literature has shown that other groups' perceptions influence individuals' views about their own group (Luhtanen & Crocker, 1992; Rosario et al., 2002; Sellers et al., 1997).

Specifically, with regard to minority ethnicity public regard can impact one's private regard (Sellers et al., 1997). Considering gays and lesbians, I suggest that individuals who perceive negative regard about their sexual orientation might develop a negative private regard reflecting the negative attitudes society holds against their sexual orientation. Further, because perceiving negative regard influences the level to which ethnic minorities perceive stigma (Sellers et al., 1997), if homosexuality is deemed as unacceptable in the public realm, gays and lesbians may feel negatively about themselves due to their sexual orientation and therefore self-stigmatize. Indeed, those identifying as a sexual minority tend to internalize the discrimination and bullying from peers (Egan & Perry, 1998). Although it has not been tested directly in prior research, I examine the possibility that public stigma will contribute or relate to private regard in this study.

Concealable Identity. Another potential reason that sexual orientation could result in increased stress levels is because it is a concealable stigmatized identity that has been linked with negative outcomes unique from nonconcealable identities (Pachankis et al., 2008). A *concealable*

identity is an identity that can be kept secret because it is not readily visible, yet social devaluation remains attached to the identity (Crocker, Major, & Steele, 1998). Homosexuality is a stigmatized identity. Although homosexuality is a concealable identity, individuals may experience stigma from society at large (Friblet et al., 1998; Herek, 1988). That is, even if the individuals do not disclose their homosexuality and experience direct discrimination, they may still internalize societal negative views and unfair treatment of others (e.g., Link, 1987). By contrast, heterosexuals are not victims of sexual stigma because their sexual orientation aligns with the societal norm. Therefore, heterosexuals likely do not personally understand the stress of feared negative evaluation and the anticipation of being rejected by society because of their sexual orientation.

Gays and lesbians who have not “come out” about their sexual orientation may have even more stress because of trying to conceal their identities. The reasoning behind maintaining anonymity could be that they perceive a lot of stigma surrounding the identity and fear the outcomes of revealing the true self to everyone (Quinn & Chaudoir, 2009). Concealing an identity and basically leading two lives would become stressful and could induce anxiety (Friblet et al., 1998). This is possible for any individual regardless of sexual orientation who is trying to conceal his or her minority identity to escape the associated discrimination.

In sum, unlike people with visible stigmatized identities, who regularly interact with others knowing of their true identity, people with concealable identities may not know exactly how others will react if they reveal the identity (Quinn & Chaudoir, 2009). This self-concealment has deleterious effects on one’s mental health, increasing the chance of developing a mood or anxiety disorder (Kurdeck, 1988; Potoczniak, Aldea, & DeBlaere, 2007). Because concealment

or the extent to which one is “out” as gay or lesbian may relate to stigma, identity, and stress, the extent of outness will be a covariate in this study.

Possible Buffers of Stress Among Gays and Lesbians

Although all gays and lesbians share an inferior status, they do not all self stigmatize or internalize the negative regard held by society or experience heightened stress levels. Thus, there may be potential buffers that may explain why some experience more internalized self views and stress than others. In this paper social support and centrality are examined as moderating buffers to lessen the impact of stigma on self-stigma and private regard.

Social Support. Perceived social support has been a widely acknowledged buffer between stress and psychological well-being (Cohen & Wills, 1985; Hill, Kaplan, French, & Johnson, 2010). The building of intimate social relationships facilitates and enhances positive self-evaluations, preventing the internalization of negative public views (Taylor & Brown, 1988). People select friends and partners who are relatively similar to themselves in terms of background and attitudes, and this selection process reinforces one’s beliefs that one’s attitudes and attributes are correct and makes them less likely to internalize the negative public views (Taylor & Brown, 1988). Social support groups provide a sense of belonging for stigmatized individuals and provide them the opportunity to compare themselves to the minority group (Crocker & Major, 1989). A major benefit of support groups for stigmatized individuals or those who have been victimized is the in-group social comparison opportunities (Crocker & Major, 1989). Social support fulfills the need to belong while reducing the salience of the stigma and allowing them the chance to focus on other positive characteristics of themselves (Crocker & Major, 1989). Support groups may also provide a way to change the stigma from a drawback to

an asset, providing individuals a chance to disregard negative public views and develop positive self-views (Crocker & Major, 1989).

In this study it was hypothesized that social support would moderate the relationships between public stigma-self stigma; public stigma-private regard; public regard-self stigma; and public regard-private regard. Another hypothesis was that gays and lesbians with a caring support system would be able to disregard the negative views of society and not define themselves by these standards. Having a confidant to share experiences with and to lend support in the context of stigma may reduce the feeling of abandonment and rejection because they have support from family and friends.

The support provides a sense of belonging, particularly when people experiencing similar situations provide the support. The shared experience element and understanding of the situation creates a unique bond between the provider and receiver of support and decreases the feeling of abandonment and rejection (Foy, Erikson, & Trice, 2001; Holt & Espelage, 2005). Shared experience has also been a common source of support in recovering from other traumas such as surviving breast cancer (Foy et al., 2001); similar others might better understand how victims feel and what might help them to cope effectively, thereby leading to more positive self-views.

Centrality of Sexual Identity. An important aspect of identity related to regard is centrality because how important the identity is to the individual may influence how they perceive stigma against that minority group (Sellers et al., 1997). Centrality is defined as the extent to which a person normatively defines herself or himself in terms of the minority status (Sellers et al., 1997). In regard to ethnic identity centrality is a measure of whether race is a core part of an individual's self-concept. This identity construct can affect how public stigma and public regard influence private regard and self-stigma because the importance of the identity to oneself

determines how much others' views affect them. If the identity is not central to their life then the effect of public beliefs would not be as detrimental to the self. Yet, greater centrality is an indicator of stronger usually more positive identity (Sellers et al., 1997), perhaps indicating that the greater the centrality, the less individuals would self-stigmatize or internalize negative public regard. In this context centrality will tap into how closely individuals identify with their sexual orientation. Thus, the greater the centrality the less gays and lesbians might internalize the negative public stigma and public regard they perceive.

Hypotheses

Hypotheses for the present thesis included:

H1) Gays and lesbians would report higher levels of stress symptoms and public and self-stigma and lower levels of public and private regard than heterosexuals.

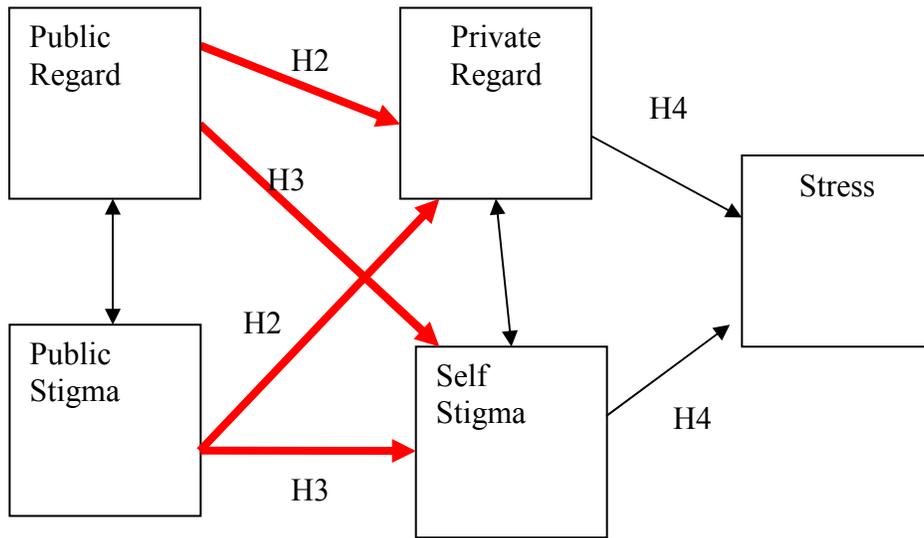
H2) Among gays and lesbians only decreased public regard and increased public stigma would be associated with decreased private regard (see Figure 1).

H3) Among gays and lesbians only decreased public regard and increased public stigma would be associated with increased self-stigma (see Figure 1).

H4) Among gays and lesbians only decreased private regard and increased self-stigma would be associated with increased stress symptoms (see Figure 1).

H5) Among gays and lesbians only centrality and social support would moderate the relationships between public stigma and self-stigma, between public stigma and private regard, between public regard and private regard, and between public regard and self-stigma such that the relations would be weaker among those who have higher levels of centrality and social support (see Figure 1).

Figure 1: Theoretical Path Model Depicting Proposed Relations



Note. The relationships demonstrated with the red bold arrows are hypothesized to be buffered by centrality and social support.

Note. The double headed arrows acknowledge correlations between the variables, but I am not predicting directionality of relationships and so these are not represented in the stated hypotheses.

CHAPTER 2

METHOD

Sample and Procedure

In order to test study hypotheses, secondary data analysis were conducted on a sample of participants who completed an online survey entitled “Study of Attitudes about Sexual Orientation” (N=1,647) and those who self- identified as homosexual (n= 245) or heterosexual (n= 1,267). Of the total participants, 1,287 reported currently being a college student, while 158 reported as a noncollege student. Participants were recruited from a southeastern university and the study was also open to nonstudents and community members. The survey was extended to the public at large and widely advertised through an online survey system, *Survey Monkey*. College student participants were offered modest course credit for their participation in the study.

Table 1 presents the descriptive statistics for the total sample and separately for heterosexuals and homosexuals (those identifying as gay or lesbian). The table displays the means and standard deviations for age and education, and the N and percentages for sex, race, relationship status, geographic location (rural, suburban, & urban), and religion. As shown, the total sample was predominantly White (N= 1,487, 86.7%), but there were minorities represented (please see Table 1 for the race breakdown as well as detailed descriptive of the sample). The average age of participants was 24.80 (SD= 10.77) and had an average education of 14.49 years (SD= 2.57). There were twice as many females (N= 1,160, 67.2%) as males (N= 555, 32.2%) who completed the survey. Most participants were single (N= 702, 40.7%) or in a committed relationship (N= 657, 38.1%), but there were several who were married as well (N= 198, 11.5%) or cohabiting with a partner (N= 92, 5.3%). As far as geographical location, there were 776 from

rural neighborhoods (45%), 616 from suburban areas (35.7%), and 316 from urban areas (18.3).

Christianity was the majority religion of the sample (N= 1,035, 60%), but

Table 1 provides the breakdown of other religious categories.

Table 1. *Descriptives of the Sample*

Demographics									
	Total=1,647			Heterosexual=1,267			Homosexuals= 245		
	M	SD	N (%)	M	SD	N (%)	M	SD	N (%)
Age	24.80	10.77		23.37	9.69		31.83	13.63	
Education	14.49	2.57		14.10	2.15		16.21	3.50	
Sex									
Female			1,160(67.2)			895(70.6)			106(43.3)
Male			555(32.2)			371(29.3)			136(55.5)
Race									
Caucasian			1,487(86.7)			1,098(86.7)			212(86.5)
African Am.			101(5.9)			85(6.7)			6(2.4)
Hispanic			53(3.1)			33(2.6)			10(4.1)
Other			43(2.5)			22(1.7)			12(4.9)
Asian			26(1.5)			21(1.7)			3(1.2)
Native Am.			6(.3)			4(.3)			1(.4)
Relationship									
Single			702(40.7)			503(39.7)			100(41)
Committed			657(38.1)			504(39.8)			97(39.6)
Married			198(11.5)			153(12.1)			18(7.3)
Cohabiting			92(5.3)			60(4.7)			25(10.2)
Divorced			33(1.9)			26(2.1)			4(1.6)
Separated			12(.7)			8(.6)			1(.4)
Widowed			10(.6)			9(.7)			---
Geographic Location									
Rural			776(45.0)			605(47.8)			95(38.8)
Suburban			616(35.7)			420(33.1)			98(40.0)
Urban			316(18.3)			234(18.5)			50(20.4)
Religion									
Christian			1,035(60.0)			912(72)			70(28.5)
Nonreligious			344(19.9)			186(14.7)			90(36.7)
Spiritual			299(17.4)			152(12.1)			77(31.4)
Jewish			9(.5)			5(.4)			2(.8)
Buddhist			7(.4)			---			5(2.0)
Hindu			4(.2)			4(.3)			---
Muslim			3(.2)			3(.2)			---

*Note. The total column also includes participants that identified as bisexual (N =135).

Measures

Sexual Orientation. This was measured in the demographics portion of the survey, where individuals self-identify as one of the following: heterosexual, lesbian, gay, bisexual, or other. The present thesis focused on individuals who self-identified as homosexual or heterosexual and compared stress differences between the two groups to see whether stigma increased stress levels.

Multidimensional Inventory of Black Identity (adapted). The Multidimensional Inventory of Black Identity (MIBI) (Sellers et al., 1997) was used to measure regard and centrality in this study. The 56-item MIBI was developed to measure the three stable dimensions of the Multidimensional Model of Racial Identity Scale (MMRI) (Sellers, Smith, Shelton, Rowley, & Chavous, 1998): 1) centrality, 2) ideology, and 3) regard in African Americans. The present study adapted the questions to apply to Homosexuality Identity. For the study we examined the regard scale, which consists of two subscales (private regard and public regard), and the centrality scale along a 7-point Likert-type response scale from 1 = “strongly agree” to 7 = “strongly disagree”. The Regard Sub-Scale of the MIBI examined a person’s affective and evaluative judgment of her or his sexual orientation. The regard subscale contains 12-items, six measuring public regard and the remaining six evaluating private regard. Sellers (1997) and his colleagues based the regard dimension of the MIBI on Crocker and Luhtanen's work on collective self-esteem. On the MIBI, like Crocker’s model of collective self-esteem, the regard dimension consists of a private and a public component (Sellers et al., 1997). The following are two example questions from the regard scale adapted to sexual identity: “I feel good about homosexual people.”; “In general, others respect gays and lesbians.” For the purpose of this study, private regard was computed by calculating a mean score of the six items and public

regard was determined by calculating a mean score of the remaining six items. Sellers and colleagues (1997) reported an adequate internal reliability for private regard ($\alpha = .60$). Sellers and Shelton (2003) reported an adequate internal reliability for public regard ($\alpha = .73$). For this study reliability for the private regard ($\alpha = .83$) and public regard ($\alpha = .91$) subscales were strong, indicating this was a reliable measuring assessing regard.

The centrality dimension of racial identity refers to the extent to which a person defines her or himself with regard to race and whether race is a core part of the individual's self-concept (Sellers et al., 1997). The Centrality Scale consists of 10 items measuring the extent to which being African American is central to the respondents' definition of themselves. A 7-point Likert-type response scale is used with 1 = strongly agree and 7 = strongly disagree. The following are two example questions from the centrality scale, adapted to sexual identity: "Being homosexual is an important reflection of who I am."; "In general, my sexual orientation is an important part of my self-image." In this study centrality was determined by calculating a mean score of the 10 items. Sellers and colleagues (1997) reported an adequate internal reliability ($\alpha = .77$) for the centrality subscale. This study showed high reliability for the centrality subscale of the MIBI ($\alpha = .80$).

This original measure showed high internal consistency as measured by the Cronbach's alpha, ranging from $\alpha = .60$ to $.79$ on the subscales. Sellers and colleagues stated that the scores on the Centrality, Private Regard and Public Regard subscales of the MIBI have construct validity, matching the theoretical premises of the appropriate MMRI dimensions (1997). The MIBI is a valid scale used to assess the identity constructs of centrality, regard, and ideology. This was the first research, to my knowledge, that has been done adapting these identity constructs of the MIBI to fit the LGB community.

Perceived Stigma Scale. Public and self-stigma were assessed using the 8-item Perceived Stigma Scale (adapted from Mickelson, 2001). This scale measures the degree to which individuals stigmatize themselves (self-stigma) and the degree to which they perceive stigma from others (public stigma) because of their sexual orientation. Example self-stigma items include “I have felt odd or abnormal because of my sexual orientation” or “I have never felt self-conscious when I am in public.” Examples of public stigma items include “I feel others have looked down on me because of my sexual orientation” or “I have been excluded from work, school, and/or family functions because of my sexual orientation.” A 5-point likert response scale was used with 1 (Definitely Disagree) to 5 (Definitely Agree). Mean scores of the four items measuring self-stigma were calculated to represent participants’ level of self-stigma. The remaining four items were mean scored to represent the participants’ level of public stigma. Previous literature indicates that this measure shows moderate internal consistency ($\alpha = .76$) as well as consistent test-retest reliability, which was 4 months after the first interview (Mickelson, 2001). Furthermore, this scale has been used in different groups such as low-income women and parents of children with special needs to assess perceived stigma and predict psychological outcomes (Mickelson, 2001; Mickelson & Williams, 2008). This scale has never been used with a homosexual sample and was adapted to apply to homosexuals for this study. The alphas of the subscales self-stigma and public stigma indicated that this scale is a valid measure of perceived stigma among homosexuals. In this study there was an adequate alpha reported for self-stigma ($\alpha = .66$) and a strong alpha reported for public stigma ($\alpha = .94$).

Perceived Stress Scale. Stress symptoms were assessed by the Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein, 1983), which is a 10-item self-report questionnaire that measures persons’ evaluations of the stressfulness of the situations in the past month of their

lives. The perceived stress scale was chosen to measure the extent of stress symptoms reported by homosexual participants because the minority stress model was discussed in this thesis as a reason for increased psychological distress among homosexuals. The minority stress model states that minorities have an increased number of stressors because of their minority status and the increased stressors therefore increases their anxiety levels (Meyers, 1995). When differentiating between stress and anxiety, researchers sometimes use anxiety as an emotional state of fear or apprehension that may or may not have an identifiable cause (University of Maryland Medical Center, 2011), while stress can refer to an event or the psychological impact of an event that results in biochemical, behavioral, or physiological changes (e.g. physical or mental tension) (University of Maryland Medical Center, 2011; American Psychiatric Association, [*DSM-IV-TR*], 2000); however in practice the two often overlap and anxiety may actually be the result of the stress within an individual's life (University of Maryland Medical Center, 2011).

The PSS was designed for use with community samples with at least a junior high school education. To attain a stress score the total was calculated for the 10 items. The PSS 10 is a shorter version that was created by the researchers by deleting 4 items from the original PSS 14 (Cohen & Williamson, 1988). Internal reliability ($\alpha = .78$) was reported by Cohen and Williamson (1988). PSS is a multidimensional and internally consistent measure of perceived stress, as measured by the Cronbach's alpha, $\alpha = .86$ (Cohen et al., 1983). The PSS showed a low alpha in this study, $\alpha = .60$, indicating that the PSS meets the lowest possible acceptability level for reliability and therefore will be discussed as a potential limitation of this study. While conducting Cronbach's alpha on the scale, one of the items pulled the alpha reliability level down to .53; therefore, this item was removed from the anxiety total in this study; the item

removed was “In the last month, how often have you felt confident about your ability to handle your personal problems?”

Multidimensional Scale of Perceived Social Support. Social support was measured by the Multidimensional Scale of Perceived Social Support (MSPSS, Zimet, Dahlem, Zimet, & Farley, 1988). This scale is a 12-item self-report inventory that measures perceived social support from family, friends, and a significant other. A 7-point likert scale is used with 1= very strongly disagree and 7 = very strongly agree. For the purpose of the present study perceived social support was found by totaling the 12 items. Previous studies have used the scale for research on various populations such as college undergraduates and adolescents and have reported the scale as a valid, reliable measure (Zimet et al., 1988; Zimet, Powell, Farley, Werkman, & Berkoff, 1990). In a confirmation study of the scale, Dahlem, Zimet, and Walker (1991) reported an internal reliability of ($\alpha = .91$) for the total scale and the subscales showed high internal reliability as well { $\alpha = .90$ (family), $\alpha = .94$ (friends), and $\alpha = .95$ (significant other)}. In this study the MSPSS showed strong reliability when measured by the Cronbach’s alpha ($\alpha = .92$), indicating that the measure was a reliable and consistent measure of perceived social support.

Demographics and Covariates. The short demographic part of the survey assessed gender, age, education, race, relationship status, religious identification, and the geographical area in which they grew up (rural, urban, suburban). These variables were tested as possible covariates, as well as Level of Outness. Level of outness was measured by the Outness Inventory (OI), which is an 11-item scale designed to assess the degree to which lesbian, gay, and bisexual (LGB) individuals are open about their sexual orientation with a variety of individuals. Participants answered questions about people in different domains of their life (e.g. parents, work

peers, extended family, new and old friends) by indicating whether the individual knows about their sexuality. Questions were answered on a scale ranging from 1 (person definitely does not know about your sexual orientation status) to 7 (person definitely does know about your sexual orientation status and it is OPENLY talked about). This measure was scored by averaging items to get 3 subscale measures, “Out to Family” is an average of items 1, 2, 3, and 4; “Out to World” is an average of items of 5, 6, 7, and 10; “Out to Religion” is combined of items 8 and 9. The 3 subscales are then averaged to create the “Overall Outness” measure. Previous research has shown the Outness Inventory to be reliable and valid (Mohr & Fassinger, 2000). Mohr and Fassinger (2000) found that the subscales on the Outness Inventory internally reliable, reporting the following values: “Out to Family” ($\alpha = .79$), “Out to World” ($\alpha = .74$), and “Out to Religion” ($\alpha = .97$). In this study the Outness Inventory produced a strong Cronbach’s alpha ($\alpha = .94$), indicating that it reliably assess the degree to which a person has disclosed his or her sexual orientation to others. Of note, outness was reported by all participants, even those self-identifying as heterosexual. Although heterosexuals do not have to disclose sexual orientation typically (it is assumed under heterosexism), this measure tapped the degree to which others know about one’s sexual orientation and not the extent to which individuals have disclosed their sexual orientation.

Table 2 presents the means, standard deviations, and correlations among all the study variables for the participants identifying as gay or lesbian, refer here to see how measures correlate among each other.

Table 2. *Descriptive Statistics and Correlations among Main Study Variables among Homosexual Participants (N= 245).*

Variable	M	SD	Range	1	2	3	4	5	6	7
Perceived Stress Scale	21.61	5.48	0-40	.11	.10	.22**	-.24**	.06	-.16*	-.13
Predictor Variable										
1. Public Stigma	1.74	1.15	1-5	--	.42**	.04	.45**	.33**	-.16*	.12
2. Self-Stigma	2.36	1.04	1-5		--	-.14	-.18*	.28**	-.21**	.03
3. Private Regard	6.36	.92	1-7			--	.19*	.28**	.26**	.43**
4. Public Regard	5.65	1.56	1-7				--	-.05	.28**	.11
5. Centrality	3.97	1.29	1-7					--	.06	.26**
6. Social Support	68.87	13.44	12-84						--	.22**
7. Level of Outness	5.78	1.55	1-7							--

*p <.05 **p< .01

Analysis

For Hypothesis 1, five independent samples *t* tests were conducted with sexual orientation (i.e., homosexual versus heterosexual) as the categorical independent variable and the dependent variables of stress, public and self-stigma, and public and private regard.

In this study, hypotheses 2-5 tested the relations illustrated in the path model shown in Figure 1. The bolded arrows of Figure 1 depict the moderating role of centrality and social support described in hypothesis 5. For Hypotheses 2 through 4, multiple regression was used to

assess the proposed relations. Private regard was regressed on public regard and public stigma (H2); self-stigma was regressed on public stigma and public regard (H3); stress symptoms were regressed on private regard and self-stigma (H4).

Moderated regression was conducted to test H5 of whether centrality and social support moderated the following relationships: public stigma to self stigma; public stigma to private regard; public regard to private regard; and public regard to self-stigma. There were eight moderated regressions (two for each moderator and dependent variable combination) conducted to assess the overall hypothesis. To determine whether centrality moderated the impact of public regard and stigma on private regard and self-stigma, private regard was regressed on public stigma, centrality, and their interaction (controlling for public regard); private regard was regressed on public regard, centrality, and their interaction (controlling for public stigma); self-stigma was regressed on public stigma, centrality, and their interaction (controlling for public regard); self-stigma was regressed on public regard, centrality, and their interaction (controlling for public stigma). A similar set of analyses were conducted to determine whether social support was a moderator. All continuous variables were centered prior to creation of interaction terms to reduce multicollinearity (a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated). Any significant interaction terms were to be decomposed using the process outlined by Aiken and West (1991).

The sample size needed for the study to retain adequate statistical power (.80) was 118 gay and lesbian participants to test hypotheses 2 through 5. In the study, data were collected on 245 participants identifying as gay or lesbian. In order to determine the actual sample size necessary for the study, the program G*Power was used. First, we looked for the most saturated regression (largest number of predictors), which were the moderated regression analyses

(estimated 10 predictors). Thus, the sample size analysis was based on two tails, medium effect size (.15), .05 alpha level, power of .80, and 10 predictors.

CHAPTER 3

RESULTS

Differences Among Sexual Orientation

In order to test H1 –that gays and lesbians would report higher levels of stress symptoms, public stigma and self-stigma, and lower levels of public and private regard than heterosexuals– five independent samples *t* tests were conducted with sexual orientation (i.e., homosexual versus heterosexual) as the categorical independent variable and the dependent variables of stress, public and self-stigma, and public and private regard. Table 3 shows the mean and standard deviation for each variable based on sexual orientation (homosexual or heterosexual). As shown, there was not a significant difference in the stress levels between homosexuals and heterosexuals or for private regard. However, homosexuals reported significantly more public stigma than heterosexuals ($t(191) = -26.79, p < .001$) as well as significantly higher self-stigma ($t(209) = -20.68, p < .001$). In addition, homosexuals reported lower levels of public regard than heterosexuals ($t(207) = 32.32, p < .001$).

Table 3. *Mean Differences in Anxiety, Regard, and Stigma between Heterosexuals and Homosexuals*

	Heterosexuals		Homosexuals		t
	M	SD	M	SD	
Stress	21.47	5.25	21.61	5.48	-.30
Private Regard	6.42	.88	6.32	.81	1.45
Self-Stigma	2.04	.81	3.62	.95	-20.68**
Public Stigma	1.32	.69	3.65	1.12	-26.79**
Public Regard	6.28	.94	3.41	1.10	32.32**

* $p < .05$ ** $p < .01$

Preliminary Analyses

Prior to testing main study hypotheses, preliminary analyses were conducted to determine whether any of the demographic variables or outness should serve as covariates in the main analyses. A simultaneous regression with potential covariates as predictors and stress as outcome indicated that only relationship status was significantly related and should therefore be included as a covariate in all analyses.

Table 4 depicts the regression results for hypotheses 2 through 4, displaying the unstandardized regression coefficients (*b*), standard errors, and standardized regression coefficients (β) for each independent and dependent variable combination. The results are shown for the relation of public regard and public stigma with private regard, the relation of public regard and public stigma with self-stigma, and the relation of private regard and self-stigma with stress among homosexual participants. Each regression analysis is explained in detail in the following paragraphs.

Table 4. *Regression Analysis-Main Effects of Public Regard and Public Stigma on Self-Stigma; Public Regard and Public Stigma on Private Regard; and Private Regard and Self-Stigma on Anxiety.*

	Private Regard			Self-Stigma			Anxiety		
	B	SE	β	B	SE	β	B	SE	β
Public Regard	.18	.06	.24**	.01	.07	.01	---	---	---
Public Stigma	.10	.06	.14	.39	.07	.45**	---	---	---
Private Regard	---	---	---	---	---	---	-1.20	.53	-.18*
Self-Stigma	---	---	---	---	---	---	.29	.46	.05

* $p < .05$ ** $p < .01$

Public Views and Private Regard

In order to analyze H2– that among gays and lesbians only, decreased public regard and increased public stigma would be associated with decreased private regard– private regard was regressed on public regard and public stigma, while controlling for relationship status. The overall multiple regression was statistically significant ($R^2 = .091$ $F(3, 156) = 5.221$, $p < .01$) and the two variables (Public Regard and Public Stigma) accounted for 9.1% of the variance in private regard among homosexuals. For the independent variables and their effects, only Public Regard was found to have a statistically significant effect on private regard ($b = .176$, $p < .01$), meaning that when public regard increases, private regard also increases by .176.

Public Views and Self-Stigma

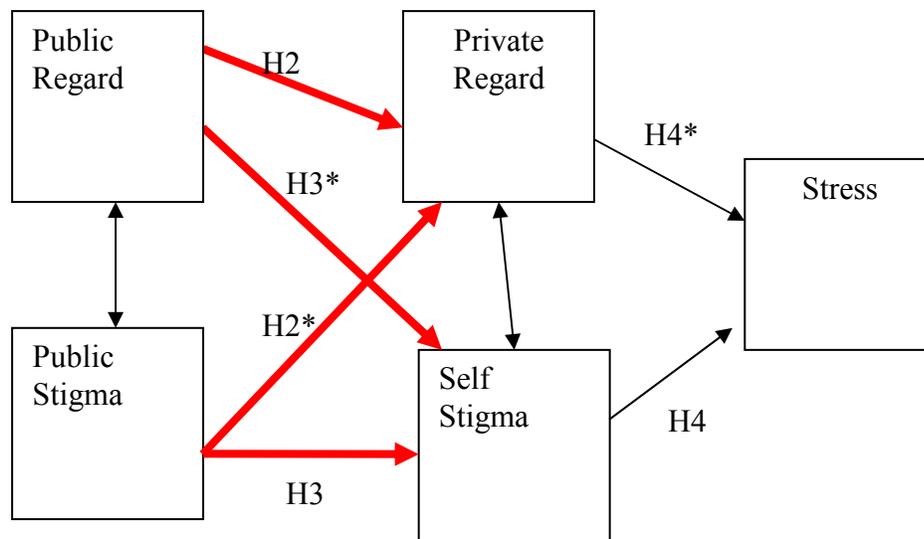
In order to analyze H3– that among gays and lesbians only, decreased public regard and increased public stigma would be associated with increased self-stigma– self-stigma was regressed on public regard and public stigma, while controlling for relationship status. The overall multiple regression was statistically significant ($R^2 = .219$ $F(3, 156) = 14.569$, $p < .001$) and thus the two variables (Public Regard and Public Stigma) accounted for 21.9% of the variance in self-stigma among homosexuals. For the independent variables and their effects, only Public Stigma was found to have a statistically significant effect on Self-Stigma ($b = .386$, $p < .001$), meaning that when public stigma increases, self-stigma also increases by .386.

Self-Views and Mental Health

In order to analyze H4 – that among gays and lesbians only, decreased private regard and increased self-stigma would be associated with increased stress symptoms– stress was regressed on private regard and self-stigma, while controlling for relationship status. The overall multiple regression was statistically significant [$R^2 = .090$; $F(3, 148) = 4.89$, $p < .01$] and the two

variables (Private Regard and Self-Stigma) accounted for 9.0% of the variance in stress among homosexuals. For the independent variables and their effects, only private regard was found to have a statistically significant effect on anxiety ($b = -1.20, p < .05$), meaning that when private regard increases (i.e., gets more positive), the stress level decreases by 1.20. Figure 2 shows the significant pathways of the model based on H2-H4.

Figure 2



Note. The asterisks in the figure indicate significant pathways.

Centrality as a Moderator

In order to analyze H5 – that centrality and social support would moderate the relationships between public stigma and self-stigma, between public stigma and private regard, between public regard and private regard, and between public regard and self-stigma, such that the relations would be weaker among those who have higher levels of centrality and social support – eight moderated regressions were conducted. Taking centrality as a moderator, in the first regression private regard was regressed on public stigma, centrality, and their interaction, while controlling

for relationship status and public regard. Results indicated the interaction with centrality was not statistically significant (non-significant R^2 change = .006, $p = .314$). In the second regression private regard was regressed on public regard, centrality, and their interaction, while controlling for relationship status and public stigma. Results indicated the interaction with centrality was not statistically significant. In the third regression self-stigma was regressed on public stigma, centrality, and their interaction, while controlling for relationship status and public regard. Results indicated the interaction with centrality was not statistically significant. The fourth regression regressed self-stigma on public regard, centrality, and their interaction, controlling for relationship status and public stigma. Results indicated the interaction with centrality was not statistically significant.

Social Support as a Moderator

Taking social support as a moderator next, in the fifth regression, private regard was regressed on public stigma, social support, and the interaction of the two, controlling for relationship status and public regard. Results indicated the interaction with social support was not statistically significant. In the sixth regression private regard was regressed on public regard, social support, and the interaction, controlling for relationship status and public stigma. Results indicated the interaction with social support was not statistically significant. In the seventh regression self-stigma was regressed on public stigma, social support and the interaction, while controlling for relationship status and public regard. Results indicated the interaction with social support was not statistically significant (non-significant R^2 change = .016, $p = .078$), but it was near significance since it was $p < .10$. In the eighth regression self-stigma was regressed on public regard, social support, and the interaction, while controlling for relationship status and public stigma. Results indicated the interaction with social support was not statistically

significant. Please see Tables 5 and 6 for detailed results of the moderated regressions testing H5 and H6.

Table 5. *Regression Analysis-Main & Moderating Effects of Centrality on Private Regard and Self-Stigma*

		Private Regard			Self-Stigma		
		B	SE	β	B	SE	β
Block 1	Public Regard	.15	.06	.21*	-.01	.07	-.01
	Public Stigma	.02	.06	.03	.34	.07	.39**
	Centrality	.18	.05	.28**	.11	.06	.15*
Block 2	Public Regard X Centrality	-.05	.04	.09	-.05	.05	-.09
	Public Stigma X Centrality	.04	.04	.08	-.02	.05	-.04

*p < .05 **p < .01

Table 6. *Regression Analysis-Main & Moderating Effects of Social Support on Private Regard and Self-Stigma*

		Private Regard			Self-Stigma		
		B	SE	β	B	SE	β
Block 1	Public Regard	.14	.06	.20*	.02	.07	.03
	Public Stigma	.12	.06	.16	.38	.07	.45**
	Social Support	.01	.01	.19*	-.01	.01	-.08
Block 2	Public Regard X Social Support	.001	.004	.03	.00	.004	.01
	Public Stigma X Social Support	-.004	.004	-.07	-.01	.004	-.13

*p < .05 **p < .01

CHAPTER 4

DISCUSSION

Social psychological research has shown that homosexuals experience increased anxiety and distress compared to heterosexuals (Cochran et al., 2003; Gilman et al., 2001; Igartua et al., 2003; Mays & Cochran, 2001; Meyer, 1995; Meyer, 2003; Pachankis & Goldfried, 2006; Quinn & Chaudoir, 2009; Rosario et al., 2002). In this study I aimed to analyze differences in stress symptoms between heterosexuals and homosexuals and provide some explanations for increased stress among homosexuals. Although multiple identity constructs (public and private regard) and stigma (public and self) have played a significant role in determining anxiety and distress levels in ethnic minorities, these had not been examined to the same extent among gays and lesbians. This study was unique because it examined the roles of identity and stigma simultaneously in determining stress levels among gays and lesbians. Moreover, centrality of identity and social support were examined as moderators of the relation between public attitudes (public regard, public stigma) and privately held ones (private regard, self-stigma). Overall, results partially supported stated hypotheses. Public regard was significantly related to private regard and public stigma was significantly related to self-stigma. In turn, more positive private regard was significantly related to decreased stress. However, neither centrality nor social support moderated the relations between publicly and privately held beliefs.

The first hypothesis of the present study was partially supported; homosexuals reported significantly higher levels of public and self-stigma and a lower level of public regard than heterosexuals in this study. However, there were no significant differences found for stress and private regard. The latter findings do not support the vast prior literature indicating that homosexuals experience higher levels of distress and anxiety than heterosexuals (Gilman et al.,

2001; Igartua et al., 2003; Mays & Cochran, 2001; Meyer, 1995; Meyer, 2003; Pachankis & Goldfried, 2006; Quinn & Chaudoir, 2009; Rosario et al., 2002). In addition, although no previous studies had applied identity constructs to homosexuals, the general findings on minority identity that suggests a lower private regard than the majority group (Sellers et al., 1997) was not supported in this study. However, the former findings provided additional support to the research findings that minorities experience higher rates of public stigma (Herek, 1988; Mays & Cochran, 2001; Pachankis et al., 2008) and lower rates of public regard (Corrigan, Larson, & Kuwabara, 2010; Sellers et al., 1997) than the dominant group. The study confirmed previous findings of self-stigma, indicating that homosexuals experience higher rates of self-stigma because of the attitudes and stigma hostility they face from society (Herek, 2004; Lundberg et al., 2007; Rosario et al., 2002).

One primary explanation for the present study's contrary findings concerns the measure used for stress in the present study. Unfortunately, the dependent variable of interest, namely stress, was measured using the Perceived Stress Scale (Cohen et al., 1983), which assesses a person's evaluations of the stressfulness of the situations in the past month. All participants regardless of identified sexual orientation experience stress within their lives. In hindsight, a measure that taps into stress or anxiety related specifically to the identity might likely result in significant differences between heterosexuals and homosexuals.

Particularly that this sample consisted mostly of college-aged students (84.7% of the sample indicating being a college student), it may be that gays and lesbian college students experience a similar amount of stress as heterosexuals. Similarly, however, it may be that homosexual college students report less public stigma than noncollege students. Indeed, results of these posthoc analyses showed that college students reported significantly lower public stigma

($M= 1.62$, $SD= 1.06$) than noncollege students ($M= 2.54$, $SD= 1.43$), and among only college students, homosexuals ($M=22.01$, $SD=5.66$) and heterosexuals ($M=21.51$, $SD=5.24$) reported similar amounts of stress. It may be that college students reported less public stigma because of the campus environment. Campus organizations aimed toward accepting gays and lesbians and universities tend to be more diverse places and may allow for a more accepting atmosphere and lower stigma. Future research should examine identity, stigma, and multiple indicators of stress and mental health in diverse samples.

In support of the next hypotheses (H2 and H3) increased public stigma was related to increased self-stigma, and decreased public regard was significantly related to decreased private regard. Moreover, in support of H4 decreased private regard was significantly related to increased stress symptoms among gays and lesbians. Findings taken together are aligned with the Minority Stress Model (Meyer, 1995), which states that the stigma and hostility from society causes more stress within the minority individual's life. The public views were found to significantly impact one's self-views indicating that the negative attitudes and hostility gays and lesbians face from society is often internalized as self-views (private regard) and was related to increased stress levels in this study. Additionally, findings represent support for the notion that dominant group perceptions or actions influence minorities' views about their group and about themselves (Herek, 2004; Sellers et al., 1997). Gays and lesbians reported increased self-stigma and lower private regard in relation to experiences of public stigma and reports about negative public regard (respectively).

Why public stigma was not significantly related to private regard and public regard not related to self-stigma is curious. Although no prior research examined these relations directly, theoretically, these constructs should be related. Upon inspection of the bivariate correlations, it

was noted that public stigma and public regard were strongly intercorrelated ($r = -.45$). Thus, it is possible that due to their common components, that unique variance may have been difficult to detect (they were included simultaneously in regressions). Yet, public stigma was not related to private regard even at the simple bivariate level. Thus, it may be that experiences of unfair treatment among homosexuals do not change their views of their sexual orientation group but may relate to less favorable self-views.

Still, a main conclusion from this study was that a strong link exists between public and private beliefs about homosexuals. That increased public stigma was related to increased self-stigma shows how the public's unfair treatment and negative attitudes toward homosexuals can impact one's self-beliefs about holding a homosexual identity including increased feelings of shame and embarrassment. Given that decreased public regard was significantly related to decreased private regard about homosexuals, it can be presumed that the public's negative beliefs about homosexuals impact one's view of one's identity group. Given that homosexuality is still a widely stigmatized identity within our culture and one with negative psychosocial implications for those who are gay and lesbian, stigma interventions are sorely needed to reduce the negativity of regard toward homosexuals held by the public. Corrigan (2004) reviewed the range of efforts aimed at intervening to reduce stigma of mental illness. These strategies should be applied to stigma of homosexuality as well, including protest, education, and contact (i.e., employing the contact hypothesis to reduce prejudice). Work incorporating contact should consider the fact that quality of contact matters and that groups made to work together toward superordinate goals are more cohesive (e.g., Sherif, 1966).

Another main conclusion of this study was that the private beliefs held by homosexuals about their group (perhaps due to the negative societal views or regard toward homosexuals) may

have implications for mental health. Private regard was related to increased stress symptoms in the present study. Thus, stigma interventions should focus not only on reducing negative public regard about homosexuality but also intervene to reduce the impact of personally held beliefs on mental health. Although this study examined centrality and social support as possible buffers from the harmful effects of public stigma and regard on the self, results of moderated regression analyses were surprisingly non-significant.

Future research should examine additional psychological, social, and cognitive resources that could serve as buffers from the harmful effects of public stigma and regard on the self and mental health symptoms. One example of an avenue being explored in current research is that of self-compassion. Specifically, the extent to which homosexual individuals are kind to themselves and see a common humanity in suffering (or in this case the stigma experience), may reduce the likelihood that these individuals will self-stigmatize or hold negative private regard for their sexual orientation. In prior social psychological work on self-compassion, studies are indicating a self-compassionate state can be induced and that self-compassion is linked with positive outcomes even in the context of rejecting experiences (e.g., Leary et al., 2007; Neff, Kirkpatrick, & Rude 2007). Additionally, other types of therapeutic strategies that employ acceptance might be explored.

Yet, that this study showed non-significant moderation of centrality and social support uniquely contributes to the literature on homosexuals. Previous research on black identity has shown centrality as a buffer (those with increased centrality of their identity are better off in terms of mental health). And in general social support can buffer against negative life events. This study applied centrality to a homosexual identity and came up short on its ability to buffer. Social support also did not moderate public and private beliefs. It may be that how central

homosexuality is to one's identity does not buffer individuals from internalizing public beliefs about homosexuality because the identity is concealable (whereas the black identity is inherently visible). This may also account for the lack of buffering of social support. Those who hold a visible stigma may be in a better position to develop a community of similar others. In addition, individuals with more visible stigmas may be more readily able to attribute unfair treatment to discrimination (rather than to the self) and therefore have more protected self-views.

Limitations

Results of this study must be considered in context of limitations that represent threats to internal and external validity. For example, a threat to internal validity in this study relates to ambiguous temporal procedure, which refers to not knowing which variable actually occurred first and therefore you cannot state that one variable caused the other (Shadish, Cook, & Campbell, 2002). In this study because the data are cross sectional in nature, it is unclear whether public stigma caused self-stigma and whether public regard caused private regard. The relationships between variables could be bidirectional or increased self-stigma (shame, embarrassment) could be causing individuals to perceive more public stigma (or decreased private regard could cause individuals to perceive more negative public regard). Another potential and related caveat regarding the cross-sectional data is that they were self-reported, where issues such as social desirability bias, fatigue effects, response set, etc., are always issues to consider. For example, in future research public regard could be assessed separately from homosexual self-reports of private stigma in order to investigate the discrepancy between homosexual and heterosexual perceptions of public stigma. Yet, it likely is the case that perceptions held by sexual minorities about the way the public views their group are what matters most.

A final threat to consider in relation to internal validity involves the low reliability of the main outcome measure, the Perceived Stress Scale. Because the alpha represented the lowest possible acceptable value for reliability, it may have limited the ability to find significant correlations in this study. Unreliability attenuates correlations (Shadish et al., 2002). Given the stated limitations of the perceived stress measure, future research should explore additional outcome measures with optimal reliability to assess the importance of both stigma and identity constructs for mental health.

In addition, a threat to external validity involves the sample parameters and whether or not the results can be generalized to all homosexuals. The majority of participants were White, college-aged, and mostly from a rural southeastern university. Considering the combination of the sample demographics and the convenience sampling method, this study may only provide a narrow scope of stigma and identity in relation to stress and findings. The findings may not generalize to more diverse samples of homosexuals because of the sample from the study. That said, it remains unclear what a representative sample of homosexuals would look like and how such representation would be sampled. Still, future researchers should continue to study larger samples using multiple strategies to diversify the samples.

Conclusion

This study examined differences in stress symptoms based on sexual orientation and attempted to provide explanations for the stress among gays and lesbians. The study confirmed findings that public views are often reflected in privately held self-beliefs. In turn, privately held views about one's sexual orientation were shown to negatively impact reports of stress symptoms. No prior studies had applied black identity constructs (regard, centrality) to

homosexuals. Thus, this study was unique in its conclusions about the importance of private regard for stress symptoms, as well as the finding that centrality did not make a difference for the internalization of public regard or public stigma. That is, regardless of centrality, homosexuals reported more self-stigma in the context of public stigma, and reported more negative private regard in the context of negative public regard. Based on the study, interventions should be organized to decrease negative public attitudes and lower the negative impact of privately held beliefs thereby decreasing stress levels for gays and lesbians.

REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (Revised 4th ed.). Washington, DC: Author.
- Baxter, C. (1989). Investigating stigma as stress in social interactions of parents. *Journal of Mental Deficiency Research*, 33, 455-466.
- Borgman, A.L. (2009). LGB allies and Christian identity: A qualitative exploration of resolving conflicts and integrating identities. *Journal of Counseling Psychology*, 56(4), 508-520.
- Britton, D.M. (1990). Homophobia and homosociality: An analysis of boundary maintenance. *Sociological Quarterly*, 31, 423-429.
- Brooks, V. R. (1981). *Minority stress and lesbian women*. Lexington, MA: Lexington Books.
- Carter, W.C. & Feld, S.L. (2004). Principles relating social regard to size and density of personal networks with applications to stigma. *Social Networks*, 26, 323-329.
- Cochran, S.D., Sullivan, J.G., & Mays, V.M. (2003). Prevalence of mental disorders, psychological distress, and mental health services use among lesbian, gay, and bisexual adults in the United States. *Journal of Counseling and Clinical Psychology*, 71(1), 53-61.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 386-396.
- Cohen, S. & Wills, T.A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.

- Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. Spacapan, S. and Oskamp, S. (Eds.) *The social psychology of health*. Newbury Park, CA: Sage.
- Corrigan, P.W. (2004). Target-specific stigma change: A strategy for impacting mental illness stigma. *Psychiatric Rehabilitation Journal*, 28, 113-121.
- Corrigan, P.W., Larson, J.E., & Kuwabara, S.A. (2010). Social psychology of the stigma of mental illness: Public and self-stigma models. *Social Psychological Foundations of Clinical Psychology*, 1, 51-68.
- Crandall, C.S., & Coleman, R. (1992). AIDS-related stigmatization and the disruption of social relationships. *Journal of Social and Personal Relationships*, 9, 163-177.
- Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 2, 4th ed., pp. 504–553). New York: McGraw–Hill.
- Crocker, J. & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, 96, 608-630.
- D'Augelli, A.R. (1996). Lesbian, gay, and bisexual development during adolescence and young adulthood. *Textbook of homosexuality and mental health*, 267-288.
- Demi, A., Bakeman, R., Moneyham, L., Sowell, R., & Seals, B. (1997). Effects of resources and stressors on burden and depression of family members who provide care to an HIV-infected woman. *Journal of Family Psychology*, 11, 35-48.
- Egan, S.K., & Perry, D.G. (1998). Does low self-regard invite victimization? *Developmental Psychology*, 34, 299-309.

- Foy, D.W., Eriksson, C.B., & Trice, G.A. (2001). Introduction to group interventions for trauma survivors. *Group Dynamics: Theory, Research, and Practice*, 5, 246-251.
- Frable, D.E.S., Platt, L., & Hoey, S. (1998). Concealable stigmas and positive self-perceptions: Feeling better around similar others. *Journal of Personality and Social Psychology*, 74, 909-922.
- Gilman, S.E., Cochran, S.D., Mays, V.M., Hughes, M., Ostrow, D., & Kessler, R.C. (2001). Risk of psychiatric disorders among individuals reporting same-sex sexual partners in the national comorbidity survey. *American Journal of Public Health*, 91, 933-039.
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice-Hall.
- Haddock, G., Zanna, M.P., & Esses, V.M. (1993). Assessing the structure of prejudicial attitudes: The case of attitudes toward homosexuals. *Journal of Personality and Social Psychology*, 65, 1105-1118.
- Haynes, S.N. & Oziel, L.J. (1976). Homosexuality: Behaviors and attitudes. *Archives of Sexual Behavior*, 5, 283- 289.
- Herek, G.M. (1986). The instrumentality of attitudes: Toward a neofunctional theory. *Journal of Social Issues*, 42, 99-114.
- Herek, G.M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender difference. *The Journal of Sex Research*, 25, 457-477.
- Herek, G.M. (2000). The psychology of sexual prejudice. *Current Directions in Psychological Science*, 9, 19-22.
- Herek, G.M. (2004). Beyond "homophobia:" Thinking about sexual stigma and prejudice in the twenty-first century. *Sexuality Research and Social Policy*, 1, 6-24.

- Herek, G.M. (2009). Minority adults in the United States: Prevalence estimates from a national probability sample. *Journal of Interpersonal Violence, 24* (1), 54-74.
- Herek, H.M., Gillis, J.R., & Cogan, J.C. (2009). Internalized stigma among sexual minority adults: Insights from a social psychological perspective. *Journal of Counseling Psychology, 56* (1), 32-43.
- Hershberger, S.L. & D'Augelli, A.R. (1995). The impact of victimization on the mental health and suicidality of lesbian, gay, and bisexual youths. *Developmental Psychology, 31*(1), 65-74.
- Hill, T.D., Kaplan, L.M., French, M.T., & Johnson, R.J. (2010). Victimization in early life and mental health in adulthood: An examination of the mediating and moderating influences of psychosocial resources. *Journal of Health and Social Behavior, 51*, 48-63.
- Holt, M.K. & Espelage, D.L. (2005). Social support as a moderator between dating violence victimization and depression/anxiety among African American and Caucasian adolescents. *School Psychology Review, 34*, 309-328.
- Igartua, K.J., Gill, K., & Montoro, R. (2003). Internalized homophobia: A factor in depression, anxiety, and suicide in the gay and lesbian population. *Canadian Journal of Community Mental Health, 22*(2), 15- 30.
- Kozloski, M.J. (2010). Homosexual moral acceptance and social tolerance: Are the effects of education changing? *Journal of Homosexuality, 57*, 1370-1383.
- Kraft, T. (1967). A case of homosexuality treated by systematic desensitization. *American Journal of Psychotherapy, 21*, 815-821.
- Kurdeck, L. A. (1988). Perceived social support in gays and lesbians in cohabiting relationships. *Journal of Personality and Social Psychology, 54*, 504-509.

- Leary, M.R., Tate, E.B., Adams, C.E., Allen, A.B., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of Personality and Social Psychology, 92*, 887–904.
- Leitner, L.M. & Cado, S. (1982). Personal constructs and homosexual stress. *Journal of Personality and Social Psychology, 43*, 869-872.
- Link, B.G. (1987). Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review, 52*, 96-112.
- Loftus, J. (2001). America's liberalization in attitudes toward homosexuality. *American Sociological Review, 66*, 762-782.
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin, 18*, 302-318.
- Lundberg, B., Hansson, L., Wentz, E., & Bjorkman, T. (2007). Sociodemographic and clinical factors related to devaluation/discrimination and rejection experiences among users of mental health services. *Social Psychiatry and Psychiatric Epidemiology, 42*, 295- 300.
- Mays, V.M. & Cochran, S.D. (2001). Mental health correlates of perceived discrimination among lesbian, gay, and bisexual adults in the United States. *American Journal of Public Health, 91*, 1869-1876.
- Meyer, I.H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior, 36*, 38-56.
- Meyer, I.H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129*, 674-697.

- Mickelson, K. D. (2001). Perceived stigma, social support, and depression. *Personality and Social Psychology Bulletin*, 27, 1046-1056.
- Mickelson, K.D. & Williams, S.L. (2008). Perceived stigma of poverty and depression: Examination of interpersonal and intrapersonal mediators. *Journal of Social and Clinical Psychology*, 27, 903-930.
- Miresghhi, S.I. & Matsumoto, D. (2008). Perceived cultural attitudes toward homosexuality and their effects on Iranian and American sexual minorities. *Cultural Diversity and Ethnic Minority Psychology*, 14, 372-376.
- Mohr, J. J., & Fassinger, R. E. (2000). Measuring dimensions of lesbian and gay male experience. *Measurement and Evaluation in Counseling and Development*, 33, 66-90.
- Neff, K.D., Kirkpatrickb, K.L., & Rude, S.S (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality* 41, 139-154.
- Olson, L.R., Cadge, W., & Harrison, J.T. (2006). Religion and public opinion about same-sex marriage. *Social Science Quarterly*, 87, 340-360.
- Pachankis, J.E., Goldfried, M.R., & Ramrattan, M.E. (2008). Extension of the rejection sensitivity construct to the interpersonal functioning of gay men. *Journal of Counseling and Clinical Psychology*, 76, 306- 317.
- Potoczniak, D.J., Aldea, M.A., & DeBlaere, C. (2007). Ego identity, social anxiety, social support, and self-concealment in lesbian, gay, and bisexual individuals. *Journal of Counseling Psychology*, 54, 447-457.
- Quinn, D.M., & Chaudoir, S.R. (2009). Living with a concealable stigmatized identity: The impact of anticipated stigma, centrality, salience, and cultural stigma on psychological distress and health. *Journal of Personality and Social Psychology*, 97, 634-651.

- Riley, B.H. (2010). GLB adolescent's "coming out." *Journal of Child and Adolescent Psychiatric Nursing, 23*, 3-10.
- Rosario, M., Schrimshaw, E.W., Hunter, J., & Gwadz, M. (2002). Gay-related stress and emotional distress among gay, lesbian, and bisexual youths: A longitudinal examination. *Journal of Counseling and Clinical Psychology, 70*, 967-975.
- Rowen, C.J., & Malcolm, J.P. (2002). Correlates of internalized homophobia and homosexual identity formation in a sample of gay men. *Journal of Homosexuality, 43*, 77-92.
- Schulte, L.J. & Battle, J. (2004). The relative importance of ethnicity and religion in predicting attitudes towards gays and lesbians. *Journal of Homosexuality, 47*, 127-142.
- Sellers, R.M., Rowley, S.A.J., Chavous, T.M., Shelton, J.N., & Smith, M.A. (1997). Multidimensional inventory of black identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology, 73*, 805-815.
- Sellers, R.M. & Shelton, J.N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology, 84*, 1079–1092.
- Sellers, R.M., Smith, M.A., Shelton, J.N., Rowley, S.A., & Chavous, T.M. (1998). Multidimensional Model of Racial Identity: A reconceptualization of African American racial identity. *Personality & Social Psychology Bulletin, 2*, 18-39.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston: Houghton Mifflin.
- Sherif, M. (1966) *In common predicament: Social psychology of intergroup conflict and cooperation*, Boston: Houghton-Mifflin.
- Spencer, S.J., Steele, C.M., & Quinn, D.M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology, 69*, 4-28.

- Taylor, S.E., & Brown, J.D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103 (2), 193-210.
- University of Maryland Medical Center. (2011). Overview of stress and anxiety. Baltimore, MD: Author. Retrieved from <http://www.umm.edu/ency/article/003211.htm>
- Ven, P.V., Bornholt, L. & Bailey, M. (1996). Measuring cognitive, affective, and behavioral components of homophobic reaction. *Archives of Sexual Behavior*, 25, 155-179.
- Vogel, D.L., Wade, N., & Hackler, S. (2007). Perceived public stigma and the willingness to seek counseling: The mediating role of self-stigma and attitudes toward counseling. *Journal of Counseling Psychology*, 54, 40-50.
- Vogel, D.L., Shechtman, Z., & Wade, N.G. (2010). The role of public and self-stigma in predicting attitudes toward group counseling. *The Counseling Psychologist*, 38, 904-922.
- Wagner, G., Serafini, J., Rabkin, J., Remien, R., & Williams, J. (1994). Integration of one's religion and homosexuality: a weapon against internalized homophobia. *Journal of Homosexuality*, 26, 91-109.
- Weis, C.B., & Dain, R.N. (1979). Ego development and sex attitudes in heterosexual and homosexual men and women. *Archives of Sexual Behavior*, 8, 341- 356.
- Zimet, G. D., Dahlem, N. W., Zimet, S.G., & Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52(1), 30-41.
- Zimet, G. D., Powell, S. S., Farley, G. K., Werkman, S., & Berkoff, K. A. (1990). Psychometric characteristics of the multidimensional scale of perceived social support. *Journal of Personality Assessment*, 55, 610-617.

APPENDIX A

Multidimensional Inventory of Black Identity (adapted to a study of homosexuality)

Directions: Please read the following questions and indicate if you strongly agree or strongly disagree with each statement. (Scale of 1 to 7)

Regard Scale:

Private regard Subscale:

- 1) I feel good about other people with my sexual orientation.
- 2) I am happy with my sexual orientation.
- 3) I feel that people with my sexual orientation have made major accomplishments and advancements.
- 4) I often regret my sexual orientation. (R)
- 5) I am proud to be a member of my sexual orientation group.
- 6) I feel that my sexual orientation community has made valuable contributions to this society.

Public Regard Subscale:

- 1) Overall, my sexual orientation is considered good by others.
- 2) In general, others respect individuals with my sexual orientation.
- 3) Most people consider individuals with my sexual orientation, on the average, to be more ineffective than other sexual orientations. (R)
- 4) My sexual orientation is not respected by the broader society. (R)
- 5) In general, other groups view my sexual orientation in a positive manner.
- 6) Society views individuals in my sexual orientation as an asset.

Centrality Scale

- 1) Overall, my sexual orientation has very little to do with how I feel about myself. (R)
- 2) In general, my sexual orientation is an important part of my self-image.
- 3) My destiny is tied to the destiny of others with my sexual orientation.
- 4) My sexual orientation is unimportant to my sense of what kind of person I am. (R)
- 5) I have a strong sense of belonging to my people of my sexual orientation.
- 6) I have a strong attachment to other people that share my sexual orientation.
- 7) My sexual orientation is an important reflection of who I am.
- 8) My sexual orientation is not a major factor in my social relationships. (R)

APPENDIX B

Multidimensional Scale of Perceived Social Support

Very Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Very Strongly Agree
1	2	3	4	5	6	7

1. There is a special person who is around when I am in need.
2. There is a special person with who I can share my joys and sorrows.
3. My family really tries to help me.
4. I get the emotional help and support I need from my family.
5. I have a special person who is a real source of comfort for me.
6. My friends really try to help me.
7. I can count on my friends when things go wrong.
8. I can talk about my problems with my family.
9. I have friends with whom I can share my joys and sorrows.
10. There is a special person in my life who cares about my feelings.
11. My family is willing to help me make decisions.
12. I can talk about my problems with my friends.

APPENDIX C

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

Name _____ Date _____
Age _____ Gender (Circle): M F Other _____

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly? 0 1 2 3 4

2. In the last month, how often have you felt that you were unable to control the important things in your life?..... 0 1 2 3 4

3. In the last month, how often have you felt nervous and “stressed”? 0 1 2 3 4

4. In the last month, how often have you felt confident about your ability to handle your personal problems? 0 1 2 3 4

5. In the last month, how often have you felt that things were going your way?..... 0 1 2 3 4

6. In the last month, how often have you found that you could not cope with all the things that you had to do? 0 1 2 3 4

7. In the last month, how often have you been able to control irritations in your life?..... 0 1 2 3 4

8. In the last month, how often have you felt that you were on top of things?... 0 1 2 3 4

9. In the last month, how often have you been angered because of things that were outside of your control? 0 1 2 3 4

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?..... 0 1 2 3 4

APPENDIX D

Perceived Stigma Scale

The following are questions about feelings and emotions you have had about your sexual orientation. These feelings and emotions are natural and experienced by many individuals. Please indicate how much you agree with the statements using the following scale:

<u>Definitely Disagree</u>	<u>Somewhat Disagree</u>	<u>Neither Agree Nor Disagree</u>	<u>Somewhat Agree</u>	<u>Definitely Agree</u>	<u>N/A</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>9</u>

I have felt odd/abnormal because of my sexual orientation.

There have been times when I have felt ashamed because of my sexual orientation

I have never felt self-conscious when I am in public.

People have treated me different because of my sexual orientation.

I never have felt embarrassed because of my sexual orientation.

I feel others have looked down on me because of my sexual orientation.

I have found that people say negative or unkind things about me behind my back because of my sexual orientation.

I have been excluded from work, school, and/or family functions because of my sexual orientation.

APPENDIX E

Demographics Portion of the Survey

Sex: ___ Male
___ Female

Age: ___

Race: ___ Alaskan/Native American
___ African American
___ Asian
___ Caucasian/White
___ Hispanic
___ Other

How would you classify the area in which you grew up?

___ Rural
___ Urban
___ Suburban

Education:

How many years of school did you complete? Mark highest grade completed.

Grade: 7 8 9 10 11 12 or GED high school equivalent
College: 1 2 3 4 5
Graduate School: 1 2 3 4 5 6 7

Sexual orientation:

___ Heterosexual
___ Bi-sexual
___ Homosexual
___ Other, Please Specify: _____

Relationship Status:

___ Single
___ Committed Relationship
___ Cohabiting
___ Married
___ Separated
___ Divorced
___ Widowed

Current religious identification:

___ Catholic
___ Other (Christian)
___ Other (Non-Christian)
___ Spiritual – religious
___ Spiritual - Not religious
___ Not religious
___ Jewish
___ Baptist
___ Southern Baptist
___ Muslim
___ Buddhist
___ Hindu

APPENDIX F

Outness Inventory

Use the following rating scale to indicate how open you are about your sexual orientation to the people listed below. Try to respond to all of the items, but leave items blank if they do not apply to you.

- 1 = person definitely does NOT know about your sexual orientation status
- 2 = person might know about your sexual orientation status, but it is NEVER talked about
- 3 = person probably knows about your sexual orientation status, but it is NEVER talked about
- 4 = person probably knows about your sexual orientation status, but it is RARELY talked about
- 5 = person definitely knows about your sexual orientation status, but it is RARELY talked about
- 6 = person definitely knows about your sexual orientation status, and it is SOMETIMES talked about
- 7 = person definitely knows about your sexual orientation status, and it is OPENLY talked about
- 0 = not applicable to your situation; there is no such person or group of people in your life

1. mother	1	2	3	4	5	6	7	0
2. father	1	2	3	4	5	6	7	0
3. siblings (sisters, brothers)	1	2	3	4	5	6	7	0
4. extended family/relatives	1	2	3	4	5	6	7	0
5. my <u>new</u> straight friends	1	2	3	4	5	6	7	0
6. my work peers	1	2	3	4	5	6	7	0
7. my work supervisor(s)	1	2	3	4	5	6	7	0
8. members of my religious community (e.g., church, temple)	1	2	3	4	5	6	7	0
9. leaders of my religious community (e.g., church, temple)	1	2	3	4	5	6	7	0
10. strangers, new acquaintances	1	2	3	4	5	6	7	0
11. my <u>old</u> heterosexual friends	1	2	3	4	5	6	7	0

VITA

ASHLEY D. DICKSON

Personal Data: Date of Birth: July, 24, 1987

Place of Birth: Bristol, Tennessee

Marital Status: Single

Education: M.A. Psychology, East Tennessee State University

Johnson City, Tennessee (2012)

B.S.S. Psychology, East Tennessee State University

Johnson City, Tennessee (2010)

Public Schools, Bristol, Tennessee

Professional Experience: Graduate Assistant, East Tennessee State University, College of Arts
and Sciences, 2010-2012

Graduate Research Coordinator for the Social Issues and Relations
Laboratory (2010-2012)

Undergraduate Research Coordinator for the Applied Psychology
Laboratory (2008- 2010)

Honors and Awards: Graduated Magna Cum Laude with Bachelors, May 2010

Psi Chi Award, ETSU, Spring 2007.

National Honor Roll

Dean's List, ETSU, (2005- 2010)