

Summer 2018

## Race, Rejection Sensitivity, and Identity Centrality Among Young Sexual Minority Women

Denise M. Calhoun

*Old Dominion University*, [dmcalthoun327@gmail.com](mailto:dmcalthoun327@gmail.com)

Follow this and additional works at: [https://digitalcommons.odu.edu/psychology\\_etds](https://digitalcommons.odu.edu/psychology_etds)



Part of the [Clinical Psychology Commons](#), and the [Ethnic Studies Commons](#)

---

### Recommended Citation

Calhoun, Denise M.. "Race, Rejection Sensitivity, and Identity Centrality Among Young Sexual Minority Women" (2018). Doctor of Philosophy (PhD), Dissertation, Psychology, Old Dominion University, DOI: 10.25777/yzyp-s614  
[https://digitalcommons.odu.edu/psychology\\_etds/69](https://digitalcommons.odu.edu/psychology_etds/69)

This Dissertation is brought to you for free and open access by the Psychology at ODU Digital Commons. It has been accepted for inclusion in Psychology Theses & Dissertations by an authorized administrator of ODU Digital Commons. For more information, please contact [digitalcommons@odu.edu](mailto:digitalcommons@odu.edu).

**RACE, REJECTION SENSITIVITY, AND IDENTITY CENTRALITY  
AMONG YOUNG SEXUAL MINORITY WOMEN**

by

Denise M. Calhoun  
B.S., May 2013, University of Wisconsin Stevens-Point (WI)

A Dissertation Submitted to the Graduate Faculties of  
Eastern Virginia Medical School  
Norfolk State University  
Old Dominion University  
In Partial Requirement for the Degree of

DOCTOR OF PHILOSOPHY

CLINICAL PSYCHOLOGY

VIRGINIA CONSORTIUM PROGRAM IN CLINICAL PSYCHOLOGY  
August 2018

Approved by:

Robin J. Lewis (Director)

Desideria S. Hacker (Member)

Barbara A. Winstead (Member)

Valerian J. Derlega (Member)

Alex Dryden (Member)

## **ABSTRACT**

### **RACE, REJECTION SENSITIVITY, AND IDENTITY CENTRALITY AMONG YOUNG SEXUAL MINORITY WOMEN**

Denise M. Calhoun  
Virginia Consortium Program in Clinical Psychology, 2018  
Director: Dr. Robin Lewis

This study examined to what extent the centrality of sexual and racial/ethnic identities were associated with rejection sensitivity in young adult sexual minority women. The relationships between sexual identity centrality and current alcohol use, alcohol-related problems, and sexual minority stress outcomes were also examined with race as a potential moderator. African American/Black and Non-Hispanic White sexual minority women 18-25 years old ( $N = 676$ ) were recruited through online social media platforms, community organizations, and email advertisements. Participants completed an online survey that included measures of three types of rejection sensitivity (interpersonal, race-based, and sexual orientation-based), sexual minority stress, alcohol use and related problems, and identity centrality (both sexual identity and racial identity). Data were collected in the United States in March to July of 2017. Results indicate that sexual identity centrality and racial identity centrality are associated with personal anxiety and expectations of discrimination among young, racially diverse LB women. Lesbian women reported significantly more sexual identity centrality than bisexual women, and White lesbian women reported the greatest amount of anxiety and expectations of discrimination based on their sexual minority status compared to all other groups.

African-American/Black women reported less hazardous and risky drinking behaviors than White women. These findings demonstrate that multiple minority statuses, and the importance of those identities to young sexual minority women, impact the amount of anxiety they experience with regards to how they will be treated or accepted by others. The findings also

highlight the importance of diversity considerations among young lesbian and bisexual women with regards to health and psychosocial outcomes.

©2018 Old Dominion University. All Rights Reserved.

This dissertation is dedicated to everyone who has given me so much love and support over the years: my parents, Judy and Glenn; my sister, Mary; my wonderful friends; and Tom. Thank you for always encouraging me to pursue my passions and inspiring me to work hard to reach my goals. I could not have done this without you!

## **ACKNOWLEDGEMENTS**

There are many people who contributed to the successful completion of this dissertation. Thank you to my committee members for your interest and support of this project. Special recognition is due to my research mentor and committee chair, Robin Lewis. Thank you for your support, guidance, and encouragement throughout this project, my other research endeavors, and my time in the program.

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	viii
Chapter	
I. INTRODUCTION .....	1
IDENTITY INTERFERENCE AND CENTRALITY .....	3
REJECTION SENSITIVITY .....	7
POTENTIAL CONSEQUENCES OF CONFLICTING IDENTITIES .....	10
THE CURRENT STUDY .....	18
II. METHOD.....	22
PARTICIPANTS AND PROCEDURE.....	22
POWER ANALYSIS .....	23
MEASURES .....	24
III. RESULTS .....	33
PRELIMINARY ANALYSES.....	33
SAMPLE DEMOGRAPHICS .....	36
DESCRIPTIVE STATISTICS .....	40
MAIN ANALYSES.....	42
RESEARCH AND EXPLORATORY QUESTIONS .....	54
FIGURE 1 .....	58
IV. DISCUSSION.....	61
REJECTION SENSITIVITY OUTCOMES .....	61
ALCOHOL-RELATED OUTCOMES .....	67
SEXUAL MINORITY STRESS OUTCOMES.....	70
FINDINGS RELATED TO SEXUAL IDENTITY .....	71
STRENGTHS OF THE CURRENT STUDY.....	73
LIMITATIONS .....	74
DIRECTIONS FOR FUTURE RESEARCH.....	75
V. CONCLUSIONS.....	79
REFERENCES .....	81
APPENDICES .....	94
A. NOTIFICATION ABOUT THE SURVEY: PROJECT IDENTITY .....	94
B. DEMOGRAPHIC QUESTIONNAIRE .....	96
C. THE MULTIDIMENSIONAL INVENTORY OF BLACK IDENTITY, CENTRALITY SCALE.....	98
D. THE NEBRASKA OUTNESS SCALE.....	99



	Page
E. THE LESBIAN, GAY, AND BISEXUAL IDENTITY SCALE .....	100
F. THE REJECTION SENSITIVITY QUESTIONNAIRE-RACE .....	102
G. THE SEXUAL MINORITY WOMEN REJECTION SENSITIVITY SCALE .....	106
H. THE REJECTION SENSITIVITY QUESTIONNAIRE .....	112
I. THE ALCOHOL USE DISORDERS IDENTIFICATION TEST .....	118
J. THE BRIEF YOUNG ADULT ALCOHOL CONSEQUENCES QUESTIONNAIRE .....	120
VITA .....	122

## LIST OF TABLES

Table	Page
1. Recruitment Information for Final Sample .....	34
2. Demographic Variables .....	37
3. Descriptive Statistics of Variables for Total Sample .....	41
4. Bivariate Correlations for Outcome Variables .....	43
5. Hierarchical Regression Analysis Summary for Sexual Identity Centrality and Race Predicting Sexual Orientation-Based Rejection Sensitivity .....	45
6. Hierarchical Regression Analysis Summary for Sexual Identity Centrality and Race Predicting Alcohol Use .....	47
7. Hierarchical Regression Analysis Summary for Sexual Identity Centrality and Race Predicting Alcohol-Related Consequences .....	48
8. Hierarchical Regression Analysis Summary for Sexual Identity Centrality and Race Predicting Negative Identity .....	49
9. Sexual Identity and Alcohol Variables for Sample by Sexual Identity .....	51
10. Hierarchical Regression Analysis Summary for Racial Identity Centrality and Sexual Identity Centrality Predicting Race-based Rejection Sensitivity .....	55
11. Hierarchical Regression Analysis Summary for Racial Identity Centrality and Sexual Identity Centrality Predicting Sexual Orientation-based Rejection Sensitivity .....	56
12. Alcohol-Related Variables by Race/Ethnicity .....	60

## **CHAPTER I**

### **INTRODUCTION**

Sexual minority women (SMW) are at greater risk for adverse health and psychological outcomes compared to heterosexual women. Specifically, women who identify as lesbian or bisexual (LB) have elevated rates of mental health disorders, are at increased risk for developing alcohol use disorders and related problems in their lifetimes, and tend to report poorer physical health, compared to their heterosexual counterparts (Cochran & Mays, 2007; Cochran, Sullivan, & Mays, 2003; Meyer, 2003). Despite increased knowledge and understanding of the unique experiences and difficulties that sexual minority women face, there are significant gaps in the literature regarding racial/ethnic differences and age cohort differences within this population. Less is known about the experience of young, racially diverse LB women and how their experiences in emerging adulthood may impact their health and well-being.

Emerging adulthood (EA) is defined as the time period between adolescence and adulthood, typically from the ages of 18 to 25. Arnett (2000) argues that emerging adulthood is a developmental period that is distinct from either adolescence or adulthood, as individuals in this age cohort are no longer as dependent on others as they were in childhood, but do not yet have the responsibilities associated with adulthood, such as marriage and parenthood. This developmental time period is often when young adults have the opportunity to explore, develop, and form their own distinct identity with regards to love, work, and personal worldviews (Arnett, 2000). This exploration period is also a crucial time where young adults explore and develop a meaningful sense of their sexual identity, or an individual's cognitive and emotional understanding of their sexual attractions and desires, as well as their beliefs and values regarding sexual relationships (Morgan, 2013). Sexuality and its impact on individuals as they transition into adulthood has received less attention among studies on emerging adulthood. The EA

literature tends to focus on the impact of heteronormative sexuality milestones, such as dating, marriage, and parenthood, which may exclude the experiences of sexual minority young adults (Torkelson, 2012). It is equally as important to understand how lesbian, gay, and bisexual (LGB) young adults differ from their heterosexual counterparts during this developmental period.

The experiences of racially and ethnically diverse SMW during the period of emerging adulthood may be particularly important to understand. EA is commonly when sexual minority women report *coming out*, or disclosing their sexual identity to others for the first time (Aranda et al., 2015; Grov, Bimbi, Nanín, & Parsons, 2006; Morgan, 2013; Parks, Hughes, & Matthews, 2004). This means that during emerging adulthood, sexual minority women of color gain another stigmatized identity, in addition to their identity as a woman and their identity as a racial minority. Past research with individuals with multiple minority identities has tended to focus on how single component identities (i.e. race *or* gender *or* sexual orientation) may influence an individual's experiences, rather than the holistic impact of their multiple identities. By assessing minority variables independently, the crucial understanding of how the interactions between identities affects the individual's experience is lost (Parent, DeBlaere, & Moradi, 2013). It is not well understood how multiple identities may relate to the complexities of health disparities that have been observed in the literature among sexual minority individuals, and one of the aims of this study was to examine the relationship between both racial *and* sexual identity in the experiences of lesbian and bisexual women, through assessing the centrality of each of these identities.

Few studies in the literature on lesbian and bisexual women have addressed the role of identity centrality in emerging adulthood. The purpose of the present study was to examine how identity centrality, or the importance of an identity to an individual's self-concept, is experienced

among young, racially diverse LB women. The study examined how identity centrality, both race-based and sexual orientation-based, is associated with rejection sensitivity, or the anxious expectation of discrimination based on an individual's belonging to a stigmatized social group, in samples of White and African-American/Black women. Further, the study explored the relation between sexual identity centrality to LB women's experiences of sexual minority stress, alcohol use, and alcohol related problems, and explored race as a potential moderator of that relationship. The most recent Institute of Medicine report (2011) on LGBT health cautioned against collapsing different sexual identities under a shared label, as this may obscure the difference that exist between the different sexual minority groups. This study focused on both the experiences of lesbian and bisexual women, so comparisons between these distinctly unique populations could be made.

### **Identity Interference and Centrality**

Identities are defined as groups that one belongs to which are meaningful aspects of one's self-concept (Settles, 2006). These identities may include the role of being a parent, being a child, being an employee, being a man, being a woman, or being a scientist, among others (Settles, 2004). Having multiple identities often has beneficial outcomes, as through these different identities individuals are able to engage in more social interactions and have the opportunity to acquire different skills. However, it may be difficult to negotiate multiple identities when *identity interference* occurs, or when one identity gets in the way of the expression of another (Settles, 2004). Identity interference has been found to be associated with multiple negative outcomes, including poor physical health, increases in the experience of psychological symptoms such as anxiety, and overall low life satisfaction (Settles, 2004). The extent to which an individual may experience identity interference largely depends on *identity*

*centrality*, or the level of importance an identity has to an individual's self-concept. High identity centrality can have both positive and negative effects. High racial identity centrality has been shown to buffer the negative effects of discrimination and mental health outcomes in African-American individuals, but individuals with high parent identities and high levels of parental stress show higher levels of psychological distress as compared to those whose parent identities were not as central (Settles, 2004).

Holding multiple important identities means there is a greater chance of encountering identity interference. Identity interference appears to occur frequently for SMW women of color, particularly African-American/Black women. In a qualitative study conducted by Bowleg, Huang, Brooks, Black, and Burkholder (2003), a majority of the Black self-identified sexual minority women cited that racism was the most stressful challenge in their life, but also noted they often experienced overt and covert heterosexism. The women identified heterosexism as prevalent in the Black community, and that they felt the need to "self-monitor" or conceal their sexual identity within this community (Bowleg et al., 2003). In another study, self-identified lesbian and bisexual African-American women who reported stronger identification with their LB identity were more likely to be "out" compared to women who reported stronger levels of identification with their Black identity (Bowleg, Burkholder, Teti, & Craig, 2009). From these studies, it appears that the interference between race and sexual identity may inhibit the expression of these women's multiple identities.

Individuals in the Bowleg et al. (2003) study reported that they thought of themselves as "Black lesbians," which is something distinctly different than just identifying as Black or just identifying as a lesbian woman. This finding is consistent with intersectionality theory, which argues that the "Black lesbian" is a meaningful whole, that they are interdependent identities, not

additive or mutually exclusive (Bowleg, 2008). However, despite their own holistic conceptualization, the women reported that they often dichotomized themselves, into one of these identities, either Black or lesbian, depending on the situation (Bowleg et al., 2003). This observation is consistent with previous research that indicates LGBT people of color may feel they must choose one identity or the other, despite facing discrimination and prejudice from both their racial/ethnic and LGB communities (Harper, 2004). The results of these studies also show that not all SMW of color experience their multiple identities in the same way; some LB women of color may identify more strongly with their sexual identity than their racial identity, and some may feel constrained in expressing both identities at the same time within certain contexts, such as their community or family of origin. The difference in reported identity expression and identity centrality among these women highlights the importance of assessing how racial identity centrality may be associated with various adverse social and health outcomes, such as experienced discrimination, substance use, and anxiety, rather than simply observing racial/ethnic differences between groups.

**Racial identity centrality.** While racial identity centrality has been shown to have positive effects among African-American individuals, such as buffering the negative effects of racism and discrimination (Settles, 2004), racial identity centrality is also associated with negative outcomes within this population. Racial identity centrality is positively correlated with reported past year experiences of microaggressions and discrimination (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Sellers, Copeland-Linder, Martin, & Lewis, 2006). In a longitudinal study of African-American first year college students, racial identity centrality was found to be predictive of perceived discrimination. Students who reported higher levels of racial identity centrality at the beginning of their freshman year of college reported a significant

increase in perceived discrimination a year later, compared to those who did not rank their racial identity as highly central (Sellers & Shelton, 2003). These data suggest that individuals whose racial identity is central to their self-concept may be more aware of and sensitive to the discriminatory acts and beliefs of others, compared to individuals whose racial identity is not as central to their self-concept.

**Sexual identity centrality.** Sexual identity centrality has been theorized as an important moderating variable between sexual minority individuals' experiences of discrimination and negative outcomes; however empirical evidence has been mixed as to how centrality impacts the well-being of sexual minority individuals. High sexual identity centrality has been associated with decreased concealment of sexual identity and reported strength of connection to the LGB community, suggesting that high sexual identity centrality has positive psychosocial outcomes (Mohr & Kendra, 2011). Other findings suggest that high identity centrality may be associated with increased psychological distress among individuals with concealable stigmatized identities. Given that their identities are not visible (in contrast with visible identities, such as race), those with concealable stigmatized identities may spend less time with people like themselves, and have less opportunity to benefit from social support and similar coping resources (Quinn & Chaudoir, 2009). In a sample of individuals with concealable stigmatized identities (those with mental illness, medical conditions, and self-identified sexual minorities, among others), participants who reported greater anticipation of experiencing discrimination and rejection based on revealing their identity also reported greater levels of identity centrality, both of which contributed to higher levels of distress (Quinn & Chaudoir, 2009).

Some studies have observed meaningful differences between sexual minority women with regards to sexual identity centrality. Previous research has shown that identity centrality



was negatively associated with concealment motivations among lesbian, gay, and bisexual men and women (Mohr & Kendra, 2011). Specifically among LB women, identity centrality was positively associated with greater outness to a variety of individuals, including family (parents, siblings, and extended family), the world (heterosexual friends, co-workers, and strangers), religious leaders and acquaintances, and LGBT friends (Dyar, Feinstein, & London, 2015). Differences with regards to sexual identity centrality emerged when lesbian and bisexual women were examined separately; bisexual women in the Dyar et al. (2015) study reported lower levels of identity centrality and were less "out" compared to lesbian women. In addition to the direct link between sexual identity and disclosure, Dyar et al. (2015) noted that identity centrality mediated this association, suggesting that bisexual women may be less out as a result of a less central sexual minority identity. These findings highlight the importance of continuing to explore the role of identity centrality among sexual minority women. Given the salience of their sexual identity during the EA period, young sexual minority women may have a highly centralized sexual identity. In addition, racially and ethnically diverse LB women may have highly centralized racial identities as well. Multiple important identities and the centrality of those identities may affect the way in which LB women approach and experience interpersonal interactions and relationships, due to a fear of rejection by others based on their minority status. This fear of rejection based on status is defined as rejection sensitivity.

### **Rejection Sensitivity**

Rejection sensitivity is understood as a cognitive-affective process in which an individual anxiously expects, readily perceives, and reacts intensely to situations where interpersonal rejection by others is possible (Downey & Feldman, 1996). A construct that is based on early theories of attachment and personality, rejection sensitivity is thought to be a mechanism by

which individuals may experience difficulties in interpersonal relationships. An individual who is highly rejection sensitive may expect to be rejected in most interpersonal contexts, interpret neutral or ambiguous interpersonal cues negatively, perceive rejection more than others, and react with intense emotion ((Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002).

Expectations of rejection have both personal and interpersonal consequences. Rejection sensitivity influences the quality of relationships an individual has with others, and negatively impacts their overall well-being. Additionally, rejection sensitivity is positively correlated with social avoidance and social distress, and is negatively correlated with self-esteem (Downey & Feldman, 1996).

**Race-based rejection sensitivity.** Although the construct of rejection sensitivity was initially developed with regards to interpersonal relationships, the expectation of rejection based on status is equally as important to consider, specifically when the expectation is to experience devaluation based on status, such as race (Mendoza-Denton, et al., 2002). An example of race-based rejection sensitivity may occur when an African-American individual's expectation is that they will be pulled over and stopped at a police roadblock, simply based on their race. Race-based rejection sensitivity affects individuals' relationships with those from the "majority" or non-stigmatized group, and may impact an individual's sense of belonging in other institutions, such as predominantly White colleges or universities (Mendoza-Denton et al., 2002).

For African-American individuals, race-based rejection sensitivity has been associated with institutional (specifically, a predominantly White university) mistrust and poorer academic performance (Mendoza-Denton et al., 2002). Further, African-American young adults with high expectations about the extent they may experience rejection based on their race reported experiencing more race-based negativity from others during the transition to college. They also

reported higher levels of alienation and rejection following such encounters (Mendoza-Denton et al., 2002). Race-based rejection sensitivity has also been found to be predictive of higher levels of negative affect and less forgiveness in response to being the target of racial discrimination (Henson, Derlega, Pearson, Ferrer, & Holmes, 2013).

**Sexual orientation rejection sensitivity.** In addition to expectations of rejection based on their race, individuals may also expect to be rejected based on their sexual orientation. There is limited empirical evidence for the impact of rejection sensitivity for sexual minority individuals, but the extant literature does suggest that rejection sensitivity in sexual minorities is related to negative outcomes. Sexual orientation rejection sensitivity has been related to internalized homophobia in gay men (Pachankis, Goldfried, & Ramratten, 2008). Similarly, in a sample of gay men and lesbian women, rejection sensitivity was positively related to experiences of discrimination and internalized homophobia (Feinstein, Goldfried, & Davilia, 2012). Also in this sample, high levels of both discrimination and rejection sensitivity were related to greater depression and anxiety symptoms (Feinstein et al., 2012). Rejection sensitivity in sexual minorities has also been found to be related to alcohol and tobacco use. Pachankis, Hatzenbuehler, and Starks (2014) found that in a sample of young (ages 18-25) sexual minority men, gay-related rejection sensitivity was associated with higher levels of daily smoking behaviors. Additionally, rejection sensitivity was associated with higher levels of daily alcohol use in sexual minority men who experienced high levels of structural stigma, or stigma produced by social structure and institutions, when they were in high school (Pachankis et al., 2014).

The research regarding rejection sensitivity and sexual minority women is relatively new. Only recently has a measure been developed specifically for measuring rejection sensitivity in SMW, the Sexual Minority Women Rejection Sensitivity Scale (SMW-RSS; Dyar, Feinstein,

Eaton, & London, 2016). Among sexual minority women (women who self-identified as lesbian, queer, and bisexual were included in the analyses), rejection sensitivity was positively correlated with reported experiences of discrimination, internalized negativity, and concealment motivations. Rejection sensitivity also significantly predicted anxiety symptoms, acceptance concerns, and difficulty developing a positive sexual identity within the sample, above and beyond any effects of gender-related rejection sensitivity (Dyar et al., 2016). Another study by these authors which used the SMW-RSS found that rejection sensitivity was a significant indirect mediator in the relationship between experienced discrimination and the development of internalizing symptoms (e.g. depression and anxiety). Rejection sensitivity also significantly mediated the relationship between experienced discrimination and proximal stressors, such as concealing one's sexual identity (Dyar, Feinstein, Eaton, & London, 2016). These results suggest that sexual orientation-based rejection sensitivity is an important variable associated with distal discrimination and internalized experiences among SMW. However, few studies have reported any observed differences between lesbian and bisexual women with regards to reported rejection sensitivity, and no studies have examined the impact of multiple minority identities on rejection sensitivity experienced by LB women. This study addressed these gaps in the literature.

### **Potential Consequences of Conflicting Identities**

The experience of identity interference and identity centrality in emerging adulthood may be related to young LB women's well-being and health behaviors. Specifically, the importance of a new self-identity (sexual minority status) may contribute to young LB women's hazardous use of alcohol, problems related to alcohol use, and their experience of sexual minority stress. The effects of identity centrality on these health behaviors may be different for SMW of color.

**Alcohol use and related problems.** Data from national surveys in the U.S. demonstrate a clear disparity in alcohol use between sexual minority women and heterosexual women. In

particular, lesbian and bisexual women are more likely to have an alcohol use disorder (AUD) and alcohol related problems, compared to heterosexual women (Green & Feinstein, 2012). Based on the 2004-2005 wave of the National Epidemiological Survey on Alcohol and Related Conditions (NESARC), among those who identified as lesbian women, 13.3% endorsed criteria consistent with past year alcohol dependence (determined by scores on the Alcohol Use Disorder and Associated Disabilities Interview Schedule –IV (AUDADIS-IV)) and 20.1% endorsed heavy drinking (defined by drinking four or more drinks in a period of 2 hours or less) within the past year (McCabe, Hughes, Bostwick, West, & Boyd, 2009). Similarly, among those who identified as bisexual women, 15.6% endorsed criteria consistent with past year alcohol dependence and 25% reported heavy drinking within the past year. Overall, lesbian women and bisexual women were 3.6 times and 2.9 times more likely, respectively, than heterosexual women to meet DSM-IV criteria for alcohol dependence (McCabe et al., 2009). Drabble, Midanik, and Trocki (2005) reported similar findings, based on the 2000 National Alcohol Survey. Lesbian and bisexual women were 7 and 6.5 times more likely, respectively, to meet DSM-IV criteria for alcohol dependence, compared to exclusively heterosexual women. Lesbian and bisexual women were also significantly more likely to report experiencing negative social consequences related to drinking, such as legal, work, or relationship problems (Drabble et al., 2005).

Increased use of alcohol is commonly seen during the emerging adulthood period, regardless of an individual's sexual identity. For example, data from the 2002 National Survey on Drug Use and Health showed that nearly 70% of respondents ages 21-25 reported using alcohol within the past month, which was a larger percentage than any other age cohort (Arnett, 2005). Young adult sexual minority individuals report using more alcohol than their heterosexual peers in a number of longitudinal studies. For instance, individuals who reported sexual minority

status, same-sex attraction, or same-sex sexual behaviors as a freshman in college (mean age of 18 years old) were more likely to report higher frequency of alcohol use at the onset of emerging adulthood, compared to individuals who identified as exclusively heterosexual (Talley, Sher, & Littlefield, 2010). Similarly, among participants in the National Longitudinal Study of Adolescent Health (Add Health), sexual orientation predicted patterns of drunkenness (frequency of being drunk within the past year) in adolescents and emerging adulthood (Dermody et al., 2014). Specifically, individuals (both male and female) who reported identifying as "gay or mostly gay" in adolescence reported lower levels of drunkenness as compared to their bisexual and heterosexual peers, but reported significantly higher levels of drunkenness in emerging adulthood as compared to individuals who identified as bisexual or heterosexual. Consistent with other research on sexual minority women and alcohol use, sexual minority women reported higher levels of drunkenness at all points of data collection, compared to heterosexual females (Dermody et al., 2014).

Sexual minority young adults are drinking more frequently and reporting more occasions of drunkenness compared to their heterosexual peers; this suggests that they may be more likely to engage in harmful or hazardous alcohol use, or meet criteria for an alcohol use disorder. Harmful alcohol use has been observed in samples of young sexual minority individuals. A study conducted in Sydney, Australia found 75% of young adult (18-25 years) lesbian women and 77% of young adult bisexual women participants reported past-month hazardous drinking behaviors, as evidenced by scores on the AUDIT-C (Lea, Reynolds, & De Wit, 2013). Given that research has demonstrated that alcohol use is a health concern among sexual minority women, and problematic patterns of drinking have been observed in a young adult cohort of SMW, better

understanding of the factors that may contribute to alcohol use is needed, in order to inform clinical interventions with this population.

Race/ethnicity may be a protective factor against hazardous or harmful drinking in emerging adults. Individuals of racial minority status, such as those who identify as African-American, Hispanic, or Asian-American, are more likely to consider abstinence from drugs and alcohol as a necessary condition for being an adult, compared to White individuals (Arnett, 2007). Non-Hispanic White young adults appear to be particularly at increased risk of problematic alcohol use, compared to other racial/ethnic groups (Stone, Becker, Huber, & Catalano, 2012). Racial/ethnic differences with regards to alcohol use among young SMW have also been identified in quantitative studies. Balsam et al. (2015) found that among young White, Black/African-American, Hispania/Latina, and Asian/Asian-American lesbian and bisexual women age 18-25, Black/African-American women had lower blood alcohol content (BAC) levels during their heaviest drinking occasion within the past month compared to White women. In another study that examined racial/ethnic differences among lesbian women, Black/African-American women reported significantly less past month hazardous drinking compared to White and Hispanic lesbian women (Calhoun, Lewis, & Braitman, 2016). These disparities among young, diverse sexual minority women and alcohol use warrant further exploration.

**Sexual minority stress.** As described previously, individuals who identify as LGB are at increased risk for developing mental health disorders compared to heterosexual individuals. The leading hypothesis as to the cause of these disparities is that the stigma, discrimination, and prejudice that LGB individuals experience during their lifetime contributes significantly to the development of psychopathology, often referred to as the *minority stress theory*. Minority stress is defined as the excess stress that individuals belonging to a stigmatized social group are

exposed to as a result of their minority social position (Meyer, 2003). Unique minority stressors that may affect sexual minority individuals are referred to as sexual minority stress. These stressors can be both objective and subjective in nature. Distal stressors are largely objective, and do not depend on the individual's identification with the minority group. Distal sexual minority stressors may include others' assumptions about an individual's sexual minority identity, which may cause the individual to be vulnerable to discrimination and prejudice. Proximal stressors in contrast are more subjective, and more dependent on the individual's self-identity as LGB. Proximal stressors may include concealing one's sexual orientation, expectations regarding the likelihood of experiencing discrimination based on sexual orientation, and internalized homophobia, or the internalization of society's anti-gay and lesbian attitudes (Meyer, 2003).

Sexual minority stressors are related to adverse health outcomes among sexual minority individuals. Internalized homophobia, specifically, is a significant correlate of depression, anxiety, substance use, and suicidal ideation (Meyer, 2003). Internalized homophobia is also negatively related to psychological distress variables, such as general well-being and self-esteem (Newcomb & Mustanski, 2010). Sexual minority stress has also been found to be related to LB women's substance use and intimate partner violence. In a sample of self-identified LB women, internalized homophobia and concealment (degree of disclosure of sexual orientation) were indirectly associated with increased alcohol, drug, and tobacco use, mediated through decreased psychological resources, while an additional stressor, LGB victimization, was both directly and indirectly associated with increased substance use (Lehavot & Simoni, 2011). Further, internalized homophobia was positively related to lifetime reported rates of physical and sexual violence victimization by a female partner, and experiences of discrimination were found to be related to lifetime perpetration of psychological, physical, and sexual aggression against a female



partner (Balsam & Syzmanski, 2005). Given the severity of outcomes associated with sexual minority stress, it may be especially important to understand what variables may contribute to these stressors.

**Sexual orientation and minority stress.** Bisexual women may be at unique risk with regards to sexual minority stress, as they must cope with stressors specifically related to bisexuality that lesbian women do not experience. Negative attitudes and stereotypes regarding bisexuality are often referred to as *binegativity*. Bisexuality is often devalued as a legitimate sexual orientation, with the perception being that bisexuals are confused, experimenting, or in denial about their true orientation (Dyar et al., 2015). Further, bisexuals are often perceived as promiscuous, sexually irresponsible, and incapable of having a monogamous romantic relationship. Bisexuals face binegativity from both heterosexual individuals and lesbian/gay women and men (Balsam & Mohr, 2007). Heterosexual individuals report more negative attitudes towards bisexuals than towards lesbians and gay men (LG), and LG individuals who question the legitimacy of bisexuality report being less willing to date or befriend a bisexual person (Balsam & Mohr, 2007). Experiences of prejudice, expectations of stigma, and internalized biphobia (the internalization of society's negative attitudes towards bisexuals) are related to higher levels of distress and lower levels of psychological well-being in individuals that identify as bisexual (Brewster, Moradi, DeBlaere, & Velez, 2013).

Research has examined the differences in sexual minority stress between bisexual individuals and LG men and women. Compared to LG individuals, bisexual men and women reported more sexual identity confusion, less connection to the LGB community, and were less "out" (Balsam & Mohr, 2007). No differences with regards to sexual orientation, however, were found for stigma sensitivity or internalized homonegativity. Further, the relation between the

sexual minority stress variables and psychosocial functioning (such as distress and self-esteem) did not differ between sexual orientation groups (Balsam & Mohr, 2007). Dyar et al. (2015) found that bisexual women reported more sexual identity uncertainty, and less outness compared to lesbian women. These studies suggest that that bisexual individuals experience unique minority stressors related to their bisexual identity, and that they may experience sexual minority stress in different ways than lesbian women and gay men. Given these differences, it is especially important to compare bisexual women's experiences of sexual minority stress to the experiences of lesbian women, and how sexual identity centrality is associated with those experiences.

It may also be important to consider that bisexual individuals may not receive the same benefit of social support and community that as LG individuals. Involvement and connection to the LGB community is associated with increased resilience against discrimination (Balsam & Mohr, 2007). However, in a qualitative study conducted by Hequembourg and Brallier (2009), bisexual participants reported a weak sense of community, given the lack of bisexual-focused support groups and organizations. Respondents reported feeling "invisible" even within the LGB community (Hequembourg & Brallier, 2009). This may suggest that the differences in reported sexual minority stressors for bisexual individuals is based on limited resources, lack of social support, and decreased ability to cope with stressors. This lack of connection with the LGB community may be an important variable to consider when conceptualizing bisexual individuals experience of sexual minority stress.

**Race/Ethnicity and sexual minority stress.** Racial/ethnic differences in the experience of sexual minority stressors have also been explored. Given that lesbian and bisexual women of color may experience discrimination, rejection, and homophobia from their racial/ethnic

community, these women may be particularly vulnerable to the effects of internalized homophobia, stigma consciousness, and feeling constrained when talking about LGB specific issues (Balsam, Molina, Beadnell, Simoni, & Walters, 2011; Greene, 2002). The effects of sexual minority stress may impact how and when lesbian women of color disclose their sexual orientation to family, friends, and other individuals; previous research has shown that a large percentage of lesbian women of color choose to conceal their sexual identities, rather than to disrupt their family dynamic (Bowleg et al., 2003).

Racial/ethnic differences have been found among sexual minority women with regards with how "out" they are to their families and others. For example, Grov, Bimbi, Nanín, and Parsons (2006) found that 80% of White LB women reported being out to their parents, as compared to 61% of African American women and 72% of Latina women. Similarly, Aranda et al. (2014) found that White and Latina lesbian and bisexual women reported greater disclosure of their sexual identities to individuals other than their family members compared to African-American SMW. Being "out" has many advantages, including the potential for LGB specific social support. LB women of color may lack the access to positive, affirming social support, or may not gain that access until later in their development. Longer exposure to sexual minority stressors, including potential homophobia from their family of origin may place lesbian and bisexual women of color at higher risk for the negative outcomes associated with these stressors as compared to their White counterparts (Aranda et al., 2015).

Findings of racial/ethnic differences for other sexual minority stress variables have been mixed. For instance, Calabrese, Meyer, Overstreet, Haile, and Hansen (2015) found that Black sexual minority women reported more frequent everyday discrimination and greater number of discriminatory acts (e.g. name-calling) enacted against them as compared to White sexual

minority women. Additionally, Black sexual minority women in this study reported poorer psychological and social well-being as compared to their White counterparts (Calabrese et al., 2015). However, results from other studies did not demonstrate significant differences between racial groups in their experiences of sexual minority stress. For example, African-American lesbian and bisexual women reported higher levels of internalized sexism compared to non-Hispanic White LB women, but the two groups were comparable on levels of internalized homophobia (Molina, Lehavot, Beadnell, & Simoni, 2014). The extant research suggests that the association of race and ethnicity to LB women's experiences of sexual minority stress has yet to be fully explored.

### **The Current Study**

The purpose of the present study was to examine differences among the experiences of young lesbian and bisexual women, with a specific focus on how racial and sexual identity centrality may be associated with rejection sensitivity. Rejection sensitivity among sexual minority individuals is associated with mental health concerns, including depression and anxiety (Dyar et al., 2016; Feinstein et al., 2012). Understanding the extent to which sexual minority women's self-concept is associated with their experience of rejection sensitivity will help inform clinical intervention with this population, as well as contribute to current theories of psychopathology development and maintenance. Additionally, the current study examined how sexual identity centrality is related to negative outcomes such as alcohol use, alcohol related problems, and sexual minority stress, and whether race moderates this relationship. This research filled a gap in the literature as the experiences of young sexual minority women of color have been insufficiently researched. Overall, the study explored how the centrality of multiple identities interact, and subsequently impact the experiences of LB women.

The first group of hypotheses focused on the relationship between sexual identity centrality and sexual orientation-based rejection sensitivity. It was expected that:

H1a. Sexual identity centrality will be positively associated with sexual orientation-based rejection sensitivity.

H1b. Race will moderate the relationship between sexual identity centrality and sexual orientation-based rejection sensitivity.

The second group of hypotheses focused on the relationship between sexual identity centrality and alcohol use and related problems. Race was explored as a moderating factor. It was expected that:

H2a. Sexual identity centrality will be positively associated with alcohol use and alcohol-related problems.

H2b. Race will moderate the relationship between sexual identity centrality and alcohol use and alcohol-related problems. The relationship between sexual identity centrality and alcohol use and alcohol-related problems will be stronger among White participants than African-American/Black participants.

The third group of hypotheses focused on the relationship between sexual identity centrality and sexual minority stress. Race was explored as a moderating factor. It was expected that:

H3a. Sexual identity centrality will be negatively associated with sexual minority stress outcomes.

H3b. Race will moderate the relationship between sexual identity centrality and sexual minority stress. The relationship between sexual identity centrality and sexual minority stress will be stronger among African-American/Black participants than White participants.

The fourth group of hypotheses focused on comparing the experiences of lesbian women and bisexual women on three main outcome variables: sexual identity centrality, alcohol use and related problems, and sexual minority stress. It was expected that:

H4a. Lesbian women and bisexual women will differ on reported levels of sexual identity centrality, with bisexual women reporting lower levels of centrality, compared to lesbian women (Dyar et al., 2015).

H4b. Lesbian women and bisexual women will differ on alcohol use and related problems, with bisexual women reporting more hazardous alcohol use and related problems (McCabe et al., 2009).

H4c. Lesbian women and bisexual women will differ on sexual minority stress, with bisexual women reporting greater negative LGB identity than lesbian women (Balsam & Mohr, 2007; Dyar et al., 2015).

The fifth group of hypotheses focused on the relationship between racial identity centrality and race-based rejection sensitivity. Only African-American/Black participants were included in these analyses. It was expected that:

H5a. Racial identity centrality will be positively associated with race-based rejection sensitivity.

H5b. There will be an interaction of racial identity centrality and sexual identity centrality on race-based rejection sensitivity. The strength of the relationship between racial identity centrality and race-based rejection sensitivity will be stronger for participants who report high levels of sexual identity centrality, than those who report lower levels of sexual identity centrality.

In addition to the aforementioned hypotheses, this study also explored differences in reported rejection sensitivity scores, based on sexual orientation. To my knowledge, no extant literature has directly examined the differences on reported rejection sensitivity between lesbian and bisexual women. To that end, this study addressed the following research question:

RQ1. Is there a relationship among sexual orientation, race, and sexual orientation-based rejection sensitivity?

Given that previous studies have demonstrated meaningful differences among African-American/Black SMW and other racial/ethnic groups on alcohol use measures (Balsam et al., 2015; Calhoun et al., 2016), the study examined between group differences on the alcohol variables of interest.

RQ2. Will there be significant differences between African-American/Black LB women and White LB women on measures of alcohol use, alcohol consumption, and alcohol-related consequences?

## CHAPTER II

### METHOD

#### Participants and Procedure

Data were collected from a community-based convenience sample. The sample consisted of self-identified lesbian and bisexual women. Participants were recruited from a variety of settings, including Old Dominion University (ODU) and Norfolk State University (NSU), community settings such as LGBT outreach centers, and online social media outlets such as Facebook and Instagram. Facebook advertising has been found to be an effective tool for survey recruitment of sexual minority women in recent studies (Lea et al., 2013; Sturm et al., 2014; Zimmerman, Darnell, Rhew, Lee, & Kaysen, 2015). This research study was reviewed and determined to be exempt by both the Old Dominion University Sciences Human Subjects Review Committee (977203-1) and the Norfolk State University Human Subjects Institutional Review Board (16-23). The proposed study was approved by both institutions prior to data collection.

To be eligible to participate in the study, women had to self-identify as lesbian or bisexual and be between the ages of 18 to 25. The study aimed to recruit a racially/ethnically diverse sample, including both Non-Hispanic White women and African-American/Black women. Their responses were not associated with any identifying information (i.e. the survey responses were anonymous). Before viewing the survey, participants were provided with information about the study, including the purpose of the study, perceived risks and benefits of participating in the study, and information about compensation for completing the survey (see Appendix A). Participants were then asked to consent to participate in the study. A total of  $N = 1,157$  individuals initially participated in the survey. A large percentage ( $n = 1053$ ; 91%) of participants were recruited through a combination of Facebook and Instagram advertisements,



email advertisements, and recruiting through local LGBT organizations (e.g. Old Dominion University's student organization, ODU Out). The remaining participants ( $n = 104$ ; 0.09%) were recruited from Norfolk State University, through an email announcement. Participant eligibility and inclusion in the final sample will be discussed in the next chapter. The survey took approximately 20-30 minutes to complete. As incentive for completing the survey, participants had the option to be entered in a raffle with the chance to win one of four \$25 Amazon gift cards. At the end of the survey, participants were provided with the contact information of various local and national resources for LGBT organizations, mental health, and substance use.

### **Power Analysis**

To evaluate the minimum sample size needed for the proposed study, power analyses for the regression analyses were conducted using G\*Power software version (G\*Power 3.1.9.2; Buchner, Erdfelder, Faul, & Lang, 2013). For the regression analyses concerning the relationship between identity centrality and rejection sensitivity, with an  $\alpha$  of .05, a sample size of 387 participants achieves a power of .80 (Cohen, 1992) to detect an  $R^2$  of 0.02 with 3 predictor variables. For the MANOVA, with an  $\alpha$  of .05, a sample size of 121 participants achieves a power of .80 (Cohen, 1992) to detect an  $f^2V$  of 0.1 with two groups and four independent variables. For the regression analyses concerning the relationship between racial identity centrality and race-based rejection sensitivity, with an  $\alpha$  of .05, a sample size of 141 participants achieves a power of .80 (Cohen, 1992) to detect an  $R^2$  of 0.08 with 3 predictor variables. The expected effect size for racial identity as a predictor is drawn from previous literature, where racial identity centrality was found to be predictive of grade point averages in a sample of African-American college students (Sellers, Chavous, & Cooke, 1998). Given that the expected  $R^2$  falls between a small and medium effect size, this is a fairly conservative estimate of effect.

## Measures

**Demographic information.** Participants reported their age, gender, race, and ethnicity. Participants between the ages of 18-25 were eligible to complete the study. Only participants who identified as biologically female were eligible to participate in this study. Participants who identified as male were excluded from the study. Participants who identified their sex as female, but their gender identity as "queer," "gender non-conforming," or "other" were included in the sample ( $n = 57$ ). Paired t-tests on outcome measures indicated that the gender queer/non-conforming sample were not significantly different from the sample that identified their gender identity as "female." Participants also reported on three aspects of their sexual orientation: sexual identity, attraction, and behavior (see Appendix B). Sexual identity was assessed by asking participants "How do you define your sexual identity? Would you say that you are: only homosexual/lesbian, mostly homosexual/lesbian, bisexual, mostly heterosexual, only heterosexual, or other?" Participants who self-identified as lesbian or bisexual were included in the analyses. Those who did not identify as either lesbian or bisexual were excluded from the analysis. Sexual attraction was assessed by asking participants "Which of the following describes who you are sexually attracted to? Only women, mostly women, equally men and women, mostly men, only men, or prefer not to answer?" Participants who reported being attracted to only men were excluded from the study.

Participants were asked to identify their race/ethnicity. Participants who identified as White/Caucasian and African-American/Black were eligible for the study. All other racial/ethnic groups discontinued the survey at this point. Sexual behavior was assessed by asking participants about past year and lifetime sexual partners. Participants were asked to report with whom they have had sex with in the past year (women only, women and men, men only, no one, prefer not

to answer) and within their lifetime (women only, women and men, men only, no one, prefer not to answer). Included in the demographic questionnaire were items that assessed participants' sexual identity developmental milestone experiences. Questions were adapted from Floyd and Stein's (2002) examples of the different aspects of *coming out*, and focused on participant's personal and public disclosure of sexual identity.

**Racial identity centrality.** The Multidimensional Inventory of Black Identity (MIBI; Sellers, Rowley, Chavous, Shelton, & Smith, 1997; see Appendix C) is a 51-item measure that assesses three dimensions of African-American identity: (1) Centrality; (2) Regard; and (3) Ideology. For this study, only the *Centrality* scale was used. The Centrality subscale consists of eight items that measure the extent to which an individual's racial identity is central to their own self-concept. Sample items include "In general, being Black is an important part of my self-image," and "Being Black is an important reflection of who I am." Respondents use a 7-point Likert scale to endorse items, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Some items on the scale are reverse scored, and a total score for the scale is created by averaging scores across all items. Scores range from 1-7, with higher scores indicating higher levels of racial centrality (Sellers et al., 1997). Internal consistency for the current sample was good,  $\alpha = .77$ . The Centrality scale of the MIBI was only administered to participants who identified as African-American/Black.

**Outness.** The Nebraska Outness Scale (NOS; Meidlinger & Hope, 2014; see Appendix D) is a 10-item questionnaire that assesses both disclosure and concealment of an individual's sexual identity. Disclosure and concealment are measured independently. For the Disclosure subscale, respondents are asked to indicate what percentage of individuals they believe from five different groups (immediate family members, extended family, friends, people at work or school,

and strangers) are aware of their sexual orientation, from 0% to 100%. For the Concealment subscale, respondents are asked to indicate how often they avoid talking about topics related to their sexual identity with members of the same groups, on a scale from "Never" to "Always." Each response is measured on an 11-point Likert scale for both subscales. Within the current sample, The NOS had good internal consistency for the Disclosure subscale ( $\alpha = .78$ ), and the Concealment subscale ( $\alpha = .73$ ). The full-Scale NOS fell below acceptable levels, ( $\alpha = .67$ ). Deleting one item from the scale, "What percentage of friends you socialize with do you think are aware of your sexual orientation?" increased the alpha level to ( $\alpha = .71$ ). This item, from the Disclosure subscale, had the highest mean score compared to the other items of the NOS-D.

**Sexual identity centrality.** The Lesbian, Gay, and Bisexual Identity Scale (LGBIS; Mohr & Kendra, 2012; see Appendix E) is a 27-item measure that assesses multiple dimensions of LGB identity. The LGBIS has eight subscales: (1) Acceptance Concerns; (2) Concealment Motivation; (3) Identity Uncertainty; (4) Internalized Homonegativity; (5) Difficult Process; (6) Identity Superiority; (7) Identity Affirmation; and (8) Identity Centrality. To assess sexual identity centrality, the *identity centrality* subscale was used. The Identity Centrality subscale of the LGBIS consists of five items that assess the extent to which individuals view their LGB identity as being central to their overall identity. Respondents use a 6-point Likert scale, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*) for items such as "To understand who I am as a person, you have to know I'm LGB," and "I believe being LGB is an important part of me." A mean score is calculated for the subscale (Mohr & Kendra, 2011). In the current sample, the internal consistency for the *Identity Centrality* subscale of the LGBIS was good,  $\alpha = .82$ .

**Rejection sensitivity: Race.** The Rejection Sensitivity Race Questionnaire (RSQ-Race; Mendoza-Denton et al., 2002; see Appendix F) is a 12-item measure that assesses an individual's

expectations of discrimination and anxiety regarding potential discrimination, based on their race. Items are small vignettes describing situations where participants might experience race-based discriminations or concerns, such as "Imagine that you are in a pharmacy, trying to pick out a few items. While you're looking at different brands, you notice one of the store clerks glancing your way." Respondents are asked to indicate how anxious or concerned they would be about a negative outcome occurring because of their race, using a 6-point Likert scale, from 1 (*very unconcerned*) to 6 (*very concerned*). Respondents are also asked to indicate the degree to which they would expect to be rejected in this situation, based on their race, using a similar scale, from 1 (*very unlikely*) to 6 (*very likely*). Each item is scored by multiplying the Anxiety and Expectation scores. An overall score for the measure is created by averaging the scores for all items. Scores range from 1-36, with higher scores indicated higher rejection sensitivity (Mendoza-Denton et al., 2002). In this study, the RSQ-Race was only administered to participants who identified as African-American/Black. In the current sample, the internal consistency was  $\alpha = .79$ .

**Rejection sensitivity: Sexual identity.** The Sexual Minority Women Rejection Sensitivity Scale (SMW-RSS; Dyar, Feinstein, Eaton, & London, 2016; see Appendix G) is a 16-item measure that assess an individual's expectations of discrimination and anxiety regarding potential discrimination, based on their status as a sexual minority woman. Like the RSQ-Race, items on the SMW-RSS are small vignettes describing situations where participants might experience discriminations or concerns based on their sexual minority status, such as "You are on a date with a woman at a restaurant. Your waiter provides you and your date with poor service." Respondents are asked to indicate how anxious or concerned they would be treated differently or experience a negative outcome because of their sexual identity, using a 6-point

Likert scale, from 1 (*not at all anxious*) to 6 (*very anxious*). Respondents are also asked to indicate the degree to which they would expect to be treated unfairly in this situation, based on their sexual identity, using a similar scale, from 1 (*very unlikely*) to 6 (*very likely*). Each item is scored by multiplying the Anxiety and Expectation scores. Overall scores for the measure are created by averaging the scores for all items, with scores ranging from 1-36 (Dyar et al., 2016). In the current sample, the internal consistency for the RSQ-SMW was excellent ( $\alpha = .90$ ).

**Rejection Sensitivity: Intimate Relationships.** The Rejection Sensitivity Questionnaire (RSQ; Downey & Feldman, 1996; see Appendix H) is an 18-item measure that assess an individual's expectations of discrimination and anxiety regarding potential interpersonal rejection. Items on the RSQ area broad range of interpersonal situations where interpersonal rejection is possible, such as "You ask your parents to come to an occasion that is important to you." Respondents are asked to indicate how anxious or concerned they would be about the outcome of the situation, using a 6-point Likert scale, from 1 (*very unconcerned*) to 6 (*very concerned*). Respondents are also asked to indicate the degree to which they would expect to experience acceptance from the other person(s) in the situation, using a similar scale, from 1 (*very unlikely*) to 6 (*very likely*). Each item is scored by multiplying the Anxiety and Expectation scores. Overall scores for the measure are created by averaging the scores for all items (Downey & Feldman, 1996). In the current sample, the internal consistency for the RSQ was  $\alpha = .87$ .

**Alcohol use.** The Alcohol Use Disorders Identification Test (AUDIT; Babor et al., 2001; see Appendix H) is a 10-item questionnaire that assesses three domains of alcohol use: hazardous alcohol use, dependence symptoms, and harmful alcohol use. The first three items of the AUDIT assess hazardous alcohol consumption, including frequency of drinking, typical number of drinks when drinking, and frequency of heavy drinking (e.g. having 6 or more drinks on one occasion).

These three questions are used as a shortened version of the assessment, referred to as the AUDIT-C (Nordqvist, Johansson, & Bendtsen, 2004). Women who score a 4 or higher on the AUDIT-C are classified as engaging in "risky drinking" behaviors, defined as hazardous weekly alcohol use and heavy episodic drinking behaviors (Nordqvist et al., 2004). Individuals who score high on the AUDIT-C typically endorse patterns of alcohol consumption above the recommended limits of 5-6 drinks per week for women and 7-9 drinks per week for men, or frequently consume 6 or more drinks on one occasion (Nordqvist et al., 2004). High levels of weekly alcohol consumption or frequent heavy episodic drinking increases an individual's risk of negative consequences of drinking (social, medical, legal, domestic, occupational, and financial consequences) for themselves or others (Babor et al., 2001).

Sample items on the AUDIT include "How often do you have a drink containing alcohol?" and "Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?" Respondents use a five-point Likert scale, with higher scores indicating that the behavior occurs more frequently. For example, for the first question ("How often do you have a drink containing alcohol?") respondents may choose a rating from 0 (*never*) to 4 (*4 or more times a week*). Possible scores range from 0-40. The AUDIT can be used as a continuous measure (e.g. McCambridge & Day, 2008) or as a screening tool such that a score of 8 or more indicates harmful *and* hazardous alcohol use, as well as a need for treatment (Babor et al., 2001). Harmful alcohol use indicates that the individual has experienced negative physical and mental health consequences as a result of alcohol use (Babor et al., 2001). However, using 8 as a cutoff score has been shown to yield lower sensitivities and higher specificities in women, as compared to men. It has been suggested that an AUDIT score of 5 or 6 may be a better indicator of hazardous and harmful drinking in women (Reinert &

Allen, 2007). In the current study, cutoff scores of 5 and 6 were used for descriptive purposes. In the current sample, the internal consistency for the AUDIT was  $\alpha = .81$ .

**Alcohol related problems.** The Brief Young Adult Alcohol Consequences Questionnaire (BYAACQ; Kahler, Strong, & Read, 2005; see Appendix I) is a 24-item questionnaire that assesses eight domains of alcohol related problems including: (1) social-interpersonal consequences; (2) impaired control; (3) self-perception; (4) self-care; (5) risk behaviors; (6) academic/occupational consequences; (7) excessive drinking; and (8) physiological dependence. Sample items include "I have felt guilty because of my drinking" and "I have gotten into trouble at work or school because of my drinking." Respondents indicate either "yes" or "no" for each item, based on their experiences over the past month. Possible scores range from 0-24, with higher scores indicating greater severity of drinking consequences. Scores of 15 and above may indicate symptoms of alcohol abuse and dependence are present (Kahler et al., 2005). In the current sample, the internal consistency for the BYAACQ was  $\alpha = .89$ .

**Sexual minority stress.** The Lesbian, Gay, and Bisexual Identity Scale (LGBIS; Mohr & Kendra, 2012; see Appendix E) is a 27-item measure that assesses multiple dimensions of LGB identity. The LGBIS has eight subscales: (1) Acceptance Concerns; (2) Concealment Motivation; (3) Identity Uncertainty; (4) Internalized Homonegativity; (5) Difficult Process; (6) Identity Superiority; (7) Identity Affirmation; and (8) Identity Centrality. A *negative identity* composite score was used as a measure of sexual minority stress in this study, comprised of 5 subscales of the LGBIS: Concealment Motivation, Identity Uncertainty, Internalized Homonegativity, Difficult Process, and Acceptance Concerns (Cramer, Burks, Golom, Stroud, & Graham, 2017).

The scales of the LGBIS that make up the Negative Identity composite capture many proximal minority stressors that LGB individuals may experience, including concealment,



internalized homophobia, and rejection concerns (Meyer, 2003). Proximal stressors are largely related to an individual's self-concept, and the experience of these stressors may be more influenced by the centrality of one's identity. For this study, the Negative Identity composite provides a broad picture of the extent to which participants are experiencing identity-related stressors, in order to examine the relationship between stressors and identity centrality. In a sample of LGB individuals, negative identity was found to significantly differ between racial/ethnic groups, with individuals who identified as African-American reporting greater negative identity compared to those who identified as White (Cramer et al., 2017). The inclusion of the *Negative Identity* composite as an outcome variable lends itself well to the current study, given that the study aims to examine racial/ethnic differences among young LB women.

The individual scales that comprise the Negative Identity composite score of the LGBIS demonstrate good reliability and validity. Cronbach's alphas for the composite subscales ranged from  $\alpha = .73$  to  $.83$ . The Acceptance Concerns subscale consists of three items that assess an individual's concern with the potential for stigmatization based on their LGB status. Sample items from this subscale include "I often wonder if others judge me for my sexual orientation," and "I think a lot about how my sexual orientation affects the way others see me." The Concealment Motivation subscale consists of three items that measure an individual's concern with privacy of their identity, and motivation to conceal their identity from others. Sample items from this subscale include "I prefer to keep my same-sex romantic relationships rather private," and "I often keep careful control over who knows about my same-sex romantic relationships." The Identity Uncertainty subscale consists of four items which assess the uncertainty an individual is experiencing regarding their sexual identity. Sample items from this subscale

include "I'm not totally sure what my sexual orientation is," and "I keep changing my mind about my sexual orientation" (Mohr & Kendra, 2011).

The Internalized Homonegativity scale consists of three items that assess the extent to which an individual reports negative feelings about being a sexual minority individual. Sample items from this subscale include "If it were possible, I would choose to be straight," and "I believe it is unfair that I am attracted to people of the same sex". The Identity Affirmation consists of three items and assesses how self-affirming the individual is with regards to their sexual identity. Sample items from this subscale include "I am glad to be an LGB person," and "I'm proud to be part of the LGB community." Respondents use a 6-point Likert scale, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*) to respond to all items. A mean score is calculated for each subscale, and then all mean scores are averaged to form the composite score (Mohr & Kendra, 2011). In the current sample, the internal consistency for the *Negative Identity* composite was  $\alpha = .83$ .

## CHAPTER III

### RESULTS

#### Preliminary Analyses

**Treatment of missing data and final sample.** Prior to conducting hypothesis testing, the data were examined for missing values. No data entry errors were detected. A total of  $N = 1,157$  individuals began the survey; not all participants were eligible based on survey entrance criteria and were subsequently not included in the final sample. Participants were initially screened based on their self-identified sexual identity, race/ethnicity, gender, and age. Participants were not included in the final sample if they did not identify as lesbian or bisexual ( $n = 285$ ); if they did not identify as either White/Caucasian or African-American/Black ( $n = 118$ ); if they identified as biologically male or identified their gender as being either male or transgender ( $n = 17$ ); or if they were not between the ages of 18-25 ( $n = 25$ ). Participants who did not provide information regarding their sexual identity, race, gender, or age were also excluded ( $n = 36$ ). Given these parameters, a total of 481 participants did not meet entrance criteria. The remaining participants,  $N = 676$ , made up the final sample. Recruitment information for the final sample is listed in Table 1.

Missing values analyses were performed for the final sample using SPSS version 22 (IBM Corp, 2013). Across all scales, missing data ranged from 9% to 47%. Scales with higher percentages of missing data fell towards the end of the survey, suggesting participant responses became more varied over time as they answered the questionnaire, perhaps due to fatigue or loss of interest. Expectation maximization (EM) methods were used to impute for missing data values. EM methods assume a normal distribution for each variable, and infers the most likely values for missing data under that distribution (Tabachnick & Fidell, 2007). The EM imputation was used at the item level; composite variables were computed from the imputed data values.

Table 1

*Recruitment Information for Final Sample*

Site	<i>n</i>	%
Facebook Advertisements	285	42.2
Instagram Advertisements	139	20.5
Email Advertisement	181	26.7
ODU Campus Announcements	14	2.1
LGBT Organization	6	0.8
Through Friends	7	1
Other	8	1.2
Did Not Respond	36	5.3

**Data screening and transformation.** After missing data were examined, data were screened for outliers utilizing a traditional cutoff of three standard deviations above or below the mean (Tabachnick & Fidell, 2007). All outliers were transformed via the Winsor method, a process in which outliers are changed to a number one value larger than the next most extreme score in the distribution. This method reduces the impact of extreme outliers on the shape of the distribution, but allows the values to retain their integrity, which results in the estimation of more accurate standard errors (Keselman, Algina, Lix, Wilcox, & Deering, 2008). Across all scales, five scores were Winsorized. Data were also tested for normality, including screening for kurtosis and skewness. Across all scales, skew and kurtosis levels fell within acceptable ranges. No skew values were above 2, and no kurtosis values were above 5, well-within accepted guidelines (Braitman, 2016).

Several attention check questions were built into the survey in order to assess for inattentive responding by participants. Questions included statements that required participants to demonstrate comprehension of logical relationships (e.g., "which season is typically the coldest?") and directed queries instructing the participants to respond in a certain way (e.g., "Please choose letter D"; Abbey & Meloy, 2017). A total of five attention check questions were included in the survey. In all, nine incorrect responses on attention check questions were recorded, endorsed by seven distinct individuals. This is a relatively low incorrect response rate, as inattentive responding rates from larger studies have been found to average as high as 35% (Abbey & Meloy, 2017). Given the low incorrect response rate, that all individuals responded to at least 60% of the attention check questions correctly, and there was little literature guidance found on excluding participants based on attention check questions, no individuals were excluded from the study based on inattention.

## Sample Demographics

The demographic characteristics of the sample are displayed in Table 2. Participants' ages ranged from 18 to 25 years, with a mean age of 21.4 years. For inclusion in the study, participants had to self-identify as lesbian or bisexual. A little more than half of the sample (58.4%) identified as bisexual, and 41.6% identified as lesbian. The sample was predominantly White (78.3%), but African-American/Black participants comprised 21.7% of the final sample, which is a large comparison group relative to others that have been examined in extant SMW literature (e.g. Balsam et al., 2015; Balsam & Syzanski, 2005). The entire sample reported identifying as biologically female, but there was more variability with regards to gender identity with 6.8% of the sample identifying as gender-queer/non-conforming, and 1.6% self-identified as "other." As expected, given that both lesbian and bisexual participants were included in the sample, there was some variability with regards to reported attraction, past-year sexual behavior, and lifetime sexual behavior among participants. Most of the sample reported experiencing attraction to women, with only a small percentage (8%) reporting that they are "mostly attracted to men." With regards to sexual behavior, more participants reported only engaging in sexual behavior with a female partner over the past year, but approximately half the sample (54%) reported sexual experiences with both female and male partners over the course of their lifetime.

Participants also reported on their personal sexuality milestones, measured in this survey as the age at which they first disclosed their sexual identity status to different groups of people, including parents, family, friends, and co-workers. The majority of the sample (94%) reported being "out", or having disclosed their sexual identity to someone else. There was some variability among the sample with regards to concealment; 17.8% of the sample reported not being out to their parents, 19.4% reported not being out to other family members, and 33.6% of

Table 2

*Demographic Variables*

Variable	<i>M</i>	<i>SD</i>
Age (years)	21.4	2.2
Sexual Identity	<i>n</i>	%
Lesbian	281	41.6
Bisexual	395	58.4
Race/Ethnicity		
White, Caucasian, alone	529	78.3
African-American/Black, alone	147	21.7
Gender Identity		
Female	619	91.6
Gender Queer/Non-conforming	46	6.8
Other (Self-Identify)	11	1.6
Sexual Attraction		
Only women	205	30.3
Mostly women	160	23.7
Men and women equally	256	37.9
Mostly men	54	8.0
Sexual Behavior: Past Year		
Women only	272	40.2
Women and men	138	20.4
Men only	172	25.4
Prefer not to answer	93	13.8
Sexual Behavior: Lifetime		
Women only	141	20.9
Women and men	367	54.3
Men only	90	13.3
No one	69	10.2

Table 2 continued

Variable	<i>n</i>	%
Current Relationship Status		
Single, not dating anyone	177	26.2
Single, dating, but not any one person	59	8.7
Single, dating a main partner, not exclusive	49	7.2
Single, exclusively dating one person	62	9.2
Partnered, in an exclusive relationship	229	33.9
Partnered, married or in a civil relationship	39	5.8
Other	27	4.0
Current Relational Partner		
Male	135	20.0
Female	187	27.7
Currently Dating (for those not partnered/exclusive)		
Exclusively women	39	5.8
Exclusively men	14	2.1
Both men and women	55	8.1
	<i>M</i>	<i>SD</i>
Sexual Identity Milestones (years)		
Age first wondered about sexual identity	12.1	3.5
Age when self-identified as sexual minority	16.0	2.9
Age of first disclosure	16.4	2.9
Age of first disclosure to a parent	17.5	2.8
Age of first disclosure to other family member	17.7	2.8
Age of first disclosure to friends	16.1	2.7
Age of first disclosure to co-workers	19.1	2.5



Table 2 continued

Variable	<i>n</i>	%
Non-Disclosure Responses		
I have not disclosed my identity to anyone	13	1.9
I have not disclosed my identity to my parents	120	17.8
I have not disclosed my identity to any other family members	131	19.4
I have not disclosed my identity to my friends	17	2.5
I have not disclosed my identity to my co-workers	227	33.6

the sample reported not being out to their co-workers. There was a significant association between race/ethnicity and not being out to parents,  $\chi^2(1) = 6.80, p = .009$  [16% of White vs. 26% of African American participants reported not being out]. The mean age of participants when they first disclosed their identity to another person was 16.4 years old, and the mean age of disclosure to a parent was 17.5 years. These mean ages are considerably younger than have been previously reported in the literature. Aranda et al. (2014) reported mean ages of first disclosure for White, African-American, and Latina lesbian women as 25, 22, and 23, respectively. The sample in Aranda and colleagues (2014) study had a much broader age range (18-83) than the current study. This suggests that young, racially diverse LB women are coming out earlier in adolescence, and may have a better understanding of their sexual identity as they enter emerging adulthood.

### **Descriptive Statistics**

Overall, participants reported relatively low levels of sexual minority stress, which may be due to relatively high levels of outness and disclosure of sexual identity to others among participants, and lower reported efforts to conceal their identity, as measured by the subscales of the Nebraska Outness Scale (NOS). The mean score for alcohol use, as measured by the AUDIT, for the sample was just below the recommended sensitivity cutoff score range of 5-6 for women (Reinert & Allen, 2007), indicating some risk of hazardous or harmful drinking behaviors among participants. In the sample, 37% of participants scored a 5 or higher on the AUDIT, while 28% scored a 6 or higher. On the AUDIT-C, a screening measure of alcohol consumption (Bush, Kivlahan, & McDonell, 1998), 28% percent of the sample scored a 4 or higher, the accepted cutoff for women that indicates risky drinking behaviors. The descriptive statistics of the variables for the total sample are displayed in Table 3.

Table 3

*Descriptive Statistics of Variables for Total Sample*

Variable	<i>n</i>	<i>M (SD)</i>
Sexual Identity Variables		
Negative Identity	676	2.67 (.67)
Sexual Identity Centrality	676	4.30 (.91)
Sexual Orientation-based Rejection Sensitivity	676	14.93 (6.07)
Outness	676	6.01 (1.62)
Concealment	676	4.40 (1.97)
Disclosure	676	5.42 (2.03)
Racial Identity Variables		
Racial Identity Centrality	147	5.09 (.89)
Race-based Rejection Sensitivity	147	9.97 (4.20)
Additional Variables		
Interpersonal Rejection Sensitivity	676	12.48 (3.71)
Alcohol Use (AUDIT)	676	4.80 (3.87)
Alcohol Consumption (AUDIT-C)	676	2.93 (1.67)
Consequences of Alcohol Use	358	4.31 (4.63)

Table 4 displays the correlations among the measured variables. Bivariate correlations revealed small to moderate correlations between outcome measures. Sexual identity centrality was positively related to all three types of rejection sensitivity, as well as racial identity centrality. Negative Identity (a measure of proximal sexual minority stress) was related to sexual identity-based rejection sensitivity and interpersonal rejection sensitivity, but not race-based rejection sensitivity. Racial identity centrality was positively related to race-based rejection sensitivity. Interestingly, racial identity centrality was negatively related to disclosure, which is consistent with reports from qualitative literature concerning Black SMW. Alcohol consumption, as measured by the AUDIT-C was found to be negatively related to concealment; while the association was significant, the effect size was small.

### **Main Analyses**

**Overview.** The first three study hypotheses, examining the association among sexual identity centrality, sexual orientation-based rejection sensitivity, alcohol use, consequences of alcohol use, negative identity, and race/ethnicity, were addressed using four hierarchical regression analyses. Assumptions for the proposed models were checked following guidelines from Tabachnick and Fidell (2007). Linearity was assessed and determined using scatterplots. Normality of residuals was identified using histograms. The absence of multicollinearity was determined by correlations between variables that did not exceed the absolute value of .9, and variance inflation factor (VIF) scores that were less than 10 (Tabachnick & Fidell, 2007). Errors of prediction were determined to be independent of each other using the Durbin-Watson statistic. No scores were deleted or combined for the following analyses.

For all analyses, the predictor variable of sexual identity centrality was centered prior to computing the regression. Race/ethnicity was the moderator term in each analysis and coded as a

Table 4

*Bivariate Correlations for Outcome Variables*

	SIC	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
2. Sexual Identity RS	.279**										
3. Negative Identity	-.060	.319**									
4. RI Centrality	.337**	-.045	-.033								
5. Race RS	.214**	.443**	.114	.221**							
6. Interpersonal RS	.081*	.307**	.116**	.044	.029						
7. Alcohol Use	-.005	.012	.053	-.003	.084	.058					
8. Consequences	-.019	.114*	.056	.047	.077	.089	.669**				
9. Outness	-.011	-.052	-.011	-.193*	-.100	.025	.047	.031			
10. Concealment	.021	.043	-.018	.052	.035	-.027	-.064	-.039	-.804**		
11. Disclosure	.003	-.043	-.036	-.238**	-.115	.013	.012	.013	.818**	-.316**	
12. Alc. Consumption	.170	.043	.027	-.056	.150	.038	.822**	.465**	.061	-.089*	.011

*Note.* SIC = Sexual Identity Centrality; RS = Rejection Sensitivity; RI = Racial Identity; Consequences = Consequences of Alcohol Use, as measured by the BYAACQ. Alc. Consumption = Alcohol consumption, as measured by the AUDIT-C.

\*Correlation is significant at the  $p < 0.05$  level. \*\*Correlation is significant at the  $p < 0.01$  level.

dichotomous variable. White women were coded as 0, and African-American/Black women were coded as 1. Hypothesis H1 was tested first, which predicted that sexual identity centrality would be associated with sexual-orientation based rejection sensitivity, and that race/ethnicity would moderate this association. Interpersonal rejection sensitivity was entered in the first step, to control for the effects of generalized expectations of rejection in interpersonal situations. Scores on the RSQ were also centered prior to analyses. Sexual identity centrality and race were entered in the second step, and the interaction term between sexual identity centrality and race was entered in the third step.

Interpersonal rejection sensitivity explained a significant amount of the variance in sexual orientation-based rejection sensitivity scores,  $F(1, 674) = 70.11, p < .001$ . The second step of the model was also significant,  $F(3, 672) = 42.597, p < .001$ . A main effect of sexual identity centrality on sexual orientation-based rejection sensitivity was found, such that individuals with higher sexual identity centrality scores reported experiencing greater levels of anxiety and expectations of discrimination, compared to those who reported lower levels of sexual identity centrality. Race/ethnicity did not significantly contribute to the model. The interaction of race/ethnicity and sexual identity centrality did not explain additional variance in sexual orientation-based rejection sensitivity,  $\Delta F(1, 671) = 0.05, p = .831$ . Results are displayed in Table 5.

This hypothesis was tested in two parts. For the first regression analysis, sexual identity centrality and race/ethnicity were entered in the first step, and the interaction term between sexual identity centrality and race/ethnicity was entered in the second step. Alcohol use, as measured by total AUDIT scores, was the criterion variable. The first step of the model was

Table 5

*Hierarchical Regression Analysis Summary for Sexual Identity Centrality and Race Predicting Sexual Orientation-Based Rejection Sensitivity*

Step and predictor variable	<i>B</i>	SE <i>B</i>	$\beta$	$R^2$	$\Delta R^2$
Step 1:				.09	.09***
Interpersonal rejection sensitivity	0.50	0.06	.31***		
Step 2:				.16	.07***
Sexual identity centrality	1.70	0.24	.25***		
Race	-0.39	0.52	-.03		
Step 3:				.16	.00
Sexual identity centrality x race	0.14	0.64	.01		

*Note.*  $N = 676$ ; \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

significant,  $F(2, 673) = 3.97, p = .019$ . A main effect of race/ethnicity on alcohol use was found, such that individuals who identified as African-American/Black reported less hazardous drinking than those who identified as White. Sexual identity centrality did not significantly contribute to the model. The interaction of race/ethnicity and sexual identity centrality did not explain additional variance in alcohol use,  $\Delta F(1, 672) = .003, p = .95$ . Results for this analysis are displayed in Table 6.

For the second regression analysis, consequences of alcohol use, as measured by total BYAACQ scores, was the criterion variable. Sexual identity centrality and race/ethnicity were entered in the first step, and the interaction term between sexual identity centrality and race/ethnicity was entered in the second step. This model was not significant,  $F(2, 355) = 1.54, p = .22$ . Results are displayed in Table 7. Hypothesis H3 predicted that sexual identity centrality would be associated with proximal minority stressors, and that race/ethnicity would moderate this association. For this analysis, sexual identity centrality and race/ethnicity were entered in the first step, and the interaction term between sexual identity centrality and race/ethnicity was entered in the second step. Experience of proximal minority stressors, as measured by the Negative Identity composite of the LGBIS, was the criterion variable. This model was not significant,  $F(2, 673) = 1.28, p = 0.28$ . Results are displayed in Table 8.

The fourth set of hypotheses was tested using multivariate analyses of variance (MANOVAs). Prior to conducting the analyses, additional assumptions for the proposed MANOVA models were checked following guidelines from Tabachnick and Fidell (2007). Data were examined for homogeneity of variance using Box's  $M$  test. Linearity between the dependent



Table 6

*Hierarchical Regression Analysis Summary for Sexual Identity Centrality and Race Predicting Alcohol Use*

Step and predictor variable	<i>B</i>	SE <i>B</i>	$\beta$	$R^2$	$\Delta R^2$
Step 1:				.01	.01*
Sexual identity centrality	-.03	0.16	-.01		
Race	-1.01	0.36	-.11*		
Step 2:				.01	.00
Sexual identity centrality x race	-0.03	0.44	-.01		

*Note.*  $N = 676$ ; \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 7

*Hierarchical Regression Analysis Summary for Sexual Identity Centrality and Race Predicting Alcohol-Related Consequences*

Step and predictor variable	<i>B</i>	SE <i>B</i>	$\beta$	$R^2$	$\Delta R^2$
Step 1:				.01	.01
Sexual identity centrality	-0.14	0.26	-.03		
Race	-1.27	0.73	-.10		
Step 2:				.01	.00
Sexual identity centrality x race	-0.19	0.77	-.01		

*Note.*  $N = 358$ ; \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 8

*Hierarchical Regression Analysis Summary for Sexual Identity Centrality and Race Predicting Negative Identity*

Step and predictor variable	<i>B</i>	SE <i>B</i>	$\beta$	$R^2$	$\Delta R^2$
Step 1:				.01	.01
Sexual identity centrality	-0.05	0.03	-.06		
Race	-0.02	0.06	-.01		
Step 2:				-.01	.00
Sexual identity centrality x race	-0.01	0.08	-.01		

*Note.*  $N = 676$ ; \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

and independent variables was checked using bivariate scatterplots. To assess multicollinearity, bivariate correlations were inspected. Although some dependent variables were strongly correlated, such as the relationship between alcohol use and consequences of alcohol use, no correlations greater an absolute value of .9 were found, suggesting that multicollinearity was not a significant problem (Tabachnick & Fidell, 2007). When significant multivariate effects were obtained, follow up univariate ANOVAs were performed.

**Sexual identity and minority identity related variables.** The relationship among sexual identity, sexual identity centrality, and minority stress was examined using a one-way MANOVA. Sexual identity has two levels; lesbian and bisexual. Identity centrality and minority stress were measured with the Identity Centrality subscale of the LGBIS and the Negative Identity composite. For this analysis, Box's  $M$  test was non-significant at  $p = 0.08$ , suggesting that the Wilks' lambda significance test will be robust, despite unequal sample sizes between groups (Tabachnick & Fidell, 2007). The overall MANOVA was significant, multivariate  $F(2, 673) = 23.47, p < .001$ , partial  $\eta^2 = .065$ . Follow-up univariate tests were conducted. The univariate test for sexual identity centrality was significant,  $F(1, 674) = 45.77, p < .001$ , partial  $\eta^2 = .064$ , while no significant effects were found for experience of proximal stress,  $F(1, 674) = 2.07, p = 0.15$ , partial  $\eta^2 = .003$ . Lesbian women reported significantly more sexual identity centrality compared to bisexual women (see Table 9).

**Sexual identity and alcohol-related outcomes.** The relationship between sexual identity and alcohol-related outcomes was examined using three one-way ANOVAs. Analyses were conducted with both the AUDIT and the AUDIT-C as outcome measures, to assess for patterns of hazardous drinking among the sample. A separate analysis was performed for consequences of alcohol use, as not all participants included in the final sample endorsed past month drinking

Table 9

*Sexual Identity and Alcohol Variables for Sample by Sexual Identity*

Variable	Lesbian Women <i>n</i> = 281	Bisexual Women <i>n</i> = 395
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
Sexual Identity Variables		
Negative Identity	2.62 (0.6)	2.69 (0.7)
Sexual Identity Centrality**	4.58 (0.8)	4.11 (0.9)
Alcohol Variables		
Alcohol Use (AUDIT)	4.66 (3.4)	4.90 (4.2)
Alcohol Consumption (AUDIT-C)	2.91 (1.6)	2.94 (1.7)
Consequences of Alcohol Use ( <i>n</i> = 147; <i>n</i> = 211)	3.88 (3.8)	4.61 (5.1)

*Note.* Significance refers to univariate tests.

\**p* < .05; \*\**p* < .01.

behaviors, which is a requirement for the BYAACQ. Sexual identity has two levels: lesbian and bisexual. Alcohol use (as measured by the total summed scores on the AUDIT), alcohol consumption (as measured by the AUDIT-C), and consequences of alcohol use (as measured by the BYAACQ) were the outcome variables of interest. The ANOVA with the AUDIT as the dependent variable was not significant,  $F(1, 674) = .637, p = 0.43$ , partial  $\eta^2 = .001$ , suggesting no significant differences between lesbian and bisexual women on hazardous alcohol use. Similarly, for the analysis with the AUDIT-C as the dependent variable, no significant differences on alcohol consumption were observed,  $F(1, 674) = .060, p = 0.81$ , partial  $\eta^2 = .000$ . The ANOVA with the BYAACQ as the dependent variable was also not significant,  $F(1, 356) = 46.07, p = 0.14$ , partial  $\eta^2 = .006$ , suggesting no significant differences on amount of negative consequences related to alcohol use experienced between lesbian and bisexual women who endorsed past month drinking behaviors (see Table 9).

The fifth set of study hypotheses, concerning the relationship between racial identity centrality and race-based rejection sensitivity, with sexual identity centrality as a moderating factor, was explored with one hierarchical regression analysis. Only participants who identified as African-American/Black were included in this analysis. Assumptions for the proposed models were checked following guidelines from Tabachnick and Fidell (2007). Linearity was assessed and determined using scatterplots. Normality of residuals was identified using histograms. The absence of multicollinearity was determined by correlations between variables that did not exceed the absolute value of .9, and variance inflation factor (VIF) scores that were less than 10 (Tabachnick & Fidell, 2007). Errors of prediction were determined to be independent of each other using the Durbin-Watson statistic. No scores were deleted or combined for the following analyses.

For all analyses, the predictor variables of racial identity centrality and sexual identity centrality were centered prior to conducting the regression. Interpersonal rejection sensitivity was entered in the first step, to control for the effects that generalized expectations of rejection in interpersonal situations may have on race-based rejection sensitivity scores. Scores on the RSQ were also centered prior to analysis. Racial identity centrality and sexual identity centrality were entered in the second step, and the interaction term between sexual identity centrality and racial identity centrality was entered in the third step. Interpersonal rejection sensitivity did not explain a significant amount of the variance among race-based rejection sensitivity scores,  $F(1, 145) = 0.12, p = .73$ . The second step of the model was significant,  $F(3, 143) = 3.66, p = .01$ . A main effect of racial identity centrality on race-based rejection sensitivity was found, such that individuals with more racial identity centrality reported more anxiety and greater expectations of discrimination, compared to those who reported lower levels of racial identity centrality. Sexual identity centrality did not significantly contribute to the model. The interaction of sexual identity centrality and racial identity centrality did not explain additional variance in race-based rejection sensitivity,  $\Delta F(1, 142) = 0.14, p = .71$ .

Given that interpersonal rejection sensitivity was not associated with race-based rejection sensitivity, and sexual identity centrality did not significantly contribute to the model as expected, a post-hoc exploratory analysis was conducted, examining the same regression model, but replacing race-based rejection sensitivity with sexual orientation-based rejection sensitivity as the dependent variable of interest. In this model, interpersonal rejection sensitivity did explain a significant amount of the variance among sexual orientation-based rejection sensitivity scores, similar to results found in the overall sample,  $F(1, 145) = 12.10, p = .001$ . A main effect was found for sexual identity centrality such that individuals with higher sexual identity centrality

reported greater anxiety and expectations of discrimination based on their sexual identity, compared to those who reported lower centrality scores, which is also consistent with the findings from the main sample. The addition of racial identity centrality did not significantly contribute to the model, but did approach significance level. The interaction of sexual identity centrality and racial identity centrality did not explain additional variance in sexual orientation-based rejection sensitivity,  $\Delta F(1, 142) = .004, p = .95$ . Results are displayed in Tables 10 and 11.

### **Research and Exploratory Questions**

This study also included both research and exploratory questions related to how outcome variables of interest may differ between participants based on their identified race/ethnicity and sexual identity. The first proposed research question was related to reported sexual orientation-based rejection sensitivity, and whether rejection sensitivity scores differed as a function of sexual identity and race/ethnicity. Assumptions for the proposed ANOVA were checked following guidelines from Tabachnik and Fidell (2007). Normality of the dependent variables was established in the preliminary data treatment, through acceptable levels of skew and kurtosis for each scale. Homogeneity of variance was determined using Levene's test. Homogeneity of variance was met within the sample,  $F(3, 673) = 2.13, p = .10$ . Independence of observation is assumed, given racial and sexual identity groups were determined via participants' self-report.

A two-way ANOVA was conducted that examined the effects of race/ethnicity (African-American/Black vs. White) and sexual identity (Lesbian/Bisexual) on reported sexual orientation-based rejection sensitivity. There was a significant interaction of race/ethnicity and sexual identity on rejection sensitivity scores,  $F(3, 672) = 4.84, p = .03$ , partial  $\eta^2 = .007$ . Simple main effects analysis demonstrated that for White women, lesbian women reported greater



Table 10

*Hierarchical Regression Analysis Summary for Racial Identity Centrality and Sexual Identity Centrality Predicting Race-based Rejection Sensitivity*

Step and predictor variable	<i>B</i>	SE <i>B</i>	$\beta$	$R^2$	$\Delta R^2$
Step 1:				.01	.01
Interpersonal rejection sensitivity	0.03	0.09	.03		
Step 2:				.07	.07*
Racial identity centrality	0.80	0.41	.17*		
Sexual identity centrality	0.84	0.46	.16		
Step 3:				.07	.00
Sexual identity centrality x racial identity centrality	0.15	0.40	.03		

*Note.*  $N = 147$ ; \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 11

*Hierarchical Regression Analysis Summary for Racial Identity Centrality and Sexual Identity Centrality Predicting Sexual Orientation-based Rejection Sensitivity*

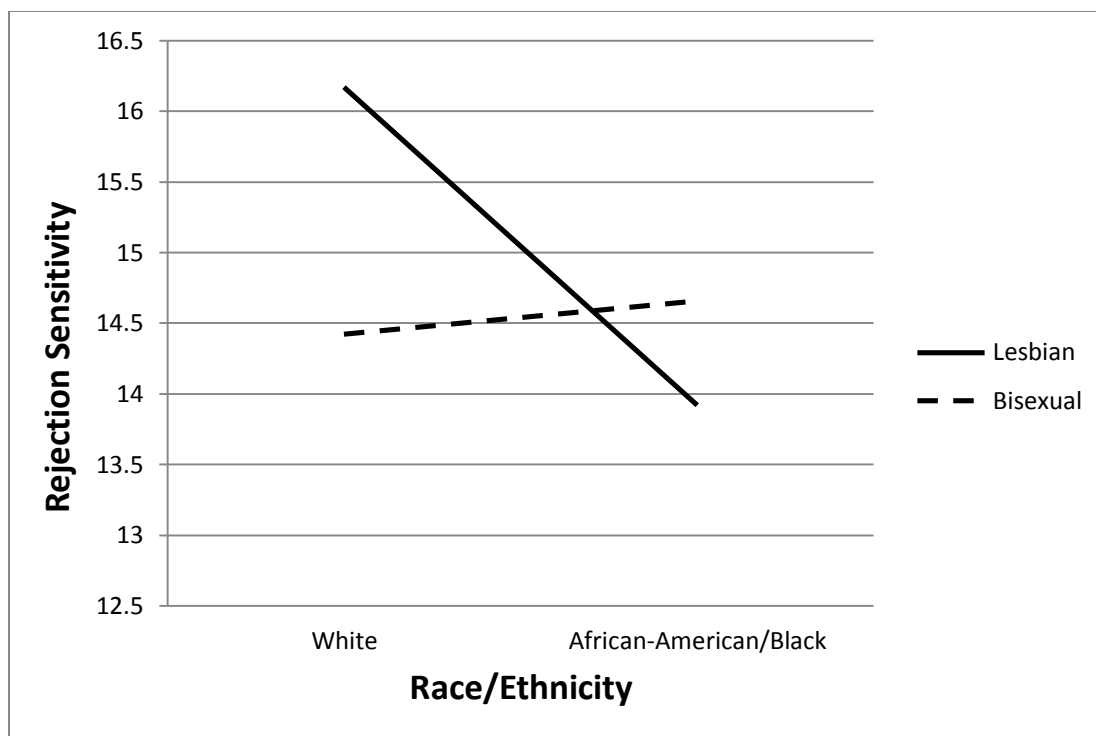
Step and predictor variable	<i>B</i>	SE <i>B</i>	$\beta$	$R^2$	$\Delta R^2$
Step 1:				.08	.08**
Interpersonal rejection sensitivity	0.42	0.12	.30**		
Step 2:				.15	.07**
Sexual identity centrality	2.22	0.64	.29**		
Racial identity centrality	-1.06	0.57	-.15		
Step 3:				.15	.00
Sexual identity centrality x racial identity centrality	0.04	0.56	.01		

*Note.*  $N = 147$ ; \* $p < .05$ . \*\* $p \leq .01$ . \*\*\* $p < .001$ .

expectations and more anxiety about discrimination than bisexual women ( $p = .001$ ). In contrast, no significant differences between scores were observed between lesbian and bisexual Black/African-American women (see Figure 1).

Another area of interest for this study is racial/ethnic differences regarding alcohol use and related consequences. Results from previous studies (e.g. Calhoun, Lewis, & Braitman, 2016) suggest that SMW who identify as African-American/Black report lower levels of alcohol use than SMW who are White. This study aimed to recruit a substantial number of African-American/Black participants to further examine alcohol use among this group. Exploratory analyses examined alcohol use, alcohol consumption, and consequences of alcohol use between the racial/ethnic groups with one MANOVA analysis and one ANOVA analysis. A separate analysis was conducted with consequences of alcohol use (as measured by the BYAACQ), as participants who did not endorse past month alcohol use did not complete this measure.

For the MANOVA analysis, Box's  $M$  test was significant at the  $p < .001$  level, suggesting a possible distortion of the alpha levels. Instead of Wilks' lambda, Pillai's trace criterion was used to assess multivariate significance, as this is a more robust significance test (Tabachnick & Fidell, 2007). In this analysis, race/ethnicity was included as the independent variable, and alcohol use (as measured by the AUDIT) and alcohol consumption (as measured by the AUDIT-C) were the dependent variables of interest. The overall MANOVA was significant, multivariate  $F(2, 673) = 4.07, p = .02$ , partial  $\eta^2 = .012$ . Given that the two groups were significantly different in size, for both the follow-up univariate analyses, the assumption of homogeneity of variance was not met. To account for this violation, Welch's ANOVAs were conducted, as this test is robust against unequal variance between groups (Brown & Forsythe, 1974). Univariate



*Figure 1.* Mean reported Sexual Orientation-based Rejection Sensitivity scores by sexual identity and race/ethnicity.

follow-up analyses for alcohol consumption, as measured by the AUDIT-C were significant,  $F(1, 674) = 6.67, p = .001$ , partial  $\eta^2 = .010$ , indicating that White women reported significantly more alcohol consumption than African-American/Black women.

For the ANOVA analysis, assumptions were checked following guidelines from Tabachnik and Fidell (2007). Normality of the dependent variables was established in the preliminary data treatment, through acceptable levels of skew and kurtosis for each scale. Homogeneity of variance was determined using Levene's test. Homogeneity of variance was not met within the sample,  $F(1, 356) = 8.03, p = .005$ . To account for this violation, Welch's ANOVAs were conducted, as this test is robust against unequal variance between groups (Brown & Forsythe, 1974). In this analysis, race/ethnicity was included as the independent variable, and consequences of alcohol use (as measured by the BYAACQ) was the dependent variable of interest. The overall ANOVA for consequences of alcohol use was significant,  $F(1, 356) = 2.82, p = .03$ , partial  $\eta^2 = .008$ . Like the results reported above, African-American/Black women reported experiencing fewer consequences related to alcohol use than White women. Results are reported in Table 12.

Table 12

*Alcohol-Related Variables by Race/Ethnicity*

Variable	African-American/Black <i>n</i> = 147	White/Caucasian <i>n</i> = 529
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
Alcohol Variables		
Alcohol Use (AUDIT)**	4.01 (2.2)	5.02 (4.2)
Alcohol Consumption (AUDIT-C)**	2.62 (1.2)	3.02 (1.8)
Consequences of Alcohol Use* ( <i>n</i> = 46; <i>n</i> = 312)	3.24 (3.3)	4.46 (4.8)

*Note.* Significance refers to univariate tests.

\**p* < .05; \*\**p* < .01.

## CHAPTER IV

### DISCUSSION

This study examined the associations between identity centrality (both sexual identity and racial identity) and three psychosocial/health outcomes (rejection sensitivity, alcohol-related outcomes, and proximal minority stress) in a diverse sample of young, self-identified lesbian and bisexual women. It was expected that identity centrality, or the importance of one's identity to their sense of self-concept, would be associated with rejection sensitivity, or the anxious expectations of experiencing discrimination by others. Specifically, it was predicted that sexual identity centrality would be associated with sexual orientation-based rejection sensitivity, and that this association would be particularly strong for LB women in emerging adulthood, given that extant research suggests the majority of sexual minority women "come out" between the ages of 18-25. It was also predicted that young LB women who are also racial minorities may experience more anxiety and expectations of discrimination, given their multiple minority status, and race/ethnicity may moderate the association between identity centrality and rejection sensitivity. Sexual identity centrality was also predicted to be associated with alcohol-related outcomes and proximal minority stressors, and race was expected to moderate those associations as well. Additional hypotheses explored between-group differences and the interaction effect between sexual identity and race/ethnicity on the outcome variables of interest. Specific findings and their implications will be presented, followed by a general discussion of overall findings, limitations of the study, and suggested directions for future research.

#### **Rejection Sensitivity Outcomes**

**Sexual orientation-based rejection sensitivity.** As expected, sexual identity centrality was positively associated with sexual orientation-based rejection sensitivity. Participants who reported more identity centrality, or that their sexual identity was an important aspect of their

self-concept, reported higher expectations and anxiety about being discriminated against by others based on their sexual minority status. Thus, it seems that individuals who see their sexual minority status as an important part of who they are may feel more vulnerable with regard to discrimination. This is similar to results found in extant literature concerning concealable stigmatized identities. Anticipated stigma, or concern about devaluation from others, was positively related to identity centrality among individuals with concealable stigmatized identities (CSIs) (defined as mental illness, experiences of childhood abuse, experiences of intimate partner violence, experiences of sexual assault, and substance use disorders in this study) (Quinn et al., 2014). In addition, anticipated stigma and identity centrality were positively related to psychological distress (Quinn et al., 2014). Results of the current study may suggest a similar pattern of risk for sexual minority individuals, that individuals with high self-reported sexual identity centrality may subsequently suffer the effects of being highly rejection-sensitive, such as increased rates of mental health concerns like depression, anxiety, and substance use (Feinstein et al., 2012; Pachankis et al., 2014).

Sexual identity centrality explained additional variance in sexual orientation-based rejection sensitivity above and beyond what was explained by the control variable of interpersonal rejection sensitivity, suggesting that sexual orientation-based rejection sensitivity is a complex variable, and an individual's experience of rejection sensitivity may be unique and influenced by several individual factors. Interestingly, no main effects for race were found, and the interaction between identity centrality and race did not significantly contribute to the model, suggesting that between racial/ethnic groups, participants did not significantly differ on reported sexual orientation-based rejection sensitivity scores. It was expected that African-American/Black LB women would report higher expectations of discrimination, given that



homophobia is common in African-American/Black communities and among their families of origin (Bowleg et al., 2003). The lack of expected findings may suggest that younger African-American/Black LB women have greater access to social support than previously thought. Or perhaps, given the relative outness of the sample, African-American/Black women may have lower expectations of discrimination due to factors such as decreased concealment within their family of origin. A qualitative study which explored themes related to sexual prejudice in young, African-American/Black lesbian women found many participants had supportive, affirming relatives and parents, whose support helped foster a sense of pride in their sexual identities (Reed & Valenti, 2012). Results of this study may also suggest that African-American/Black women in emerging adulthood may be living in environments (such as college campuses, with friends, roommates, etc.) where they feel more accepted and less fearful of being rejected. Additionally, with greater visibility of LGBT celebrities of color, and more inclusivity of sexual minority character portrayals in the popular media (TV, movies), cultural attitudes within the African-American/Black community may be shifting towards more tolerance and acceptance of sexual minorities.

**Race-based rejection sensitivity.** One of the study aims was to recruit a large percentage of African-American/Black individuals so that separate analyses concerning race-related variables could be conducted with enough power to detect significant effects. Lower racial/ethnic diversity among samples, or small racial/ethnic minority subgroups within samples have been limitations of extant literature concerning sexual minority women. In this sample, the mean score on the MIBI Centrality score for the sample was  $M = 5.09$  (range from 1-7, with higher scores indicating greater centrality), suggesting a strong sense of racial identity centrality among African-American/Black participants.

Consistent with expectations, racial identity centrality was associated with race-based rejection sensitivity. Individuals who reported that being Black was an important part of their identity endorsed more anxiety and expectations of race-based discrimination. No main effects were found for the inclusion of sexual identity centrality in the regression model. This may be a reflection of the process of identity interference (Settles, 2004), that the expression of racial identity in this context is more salient than sexual identity. The interaction between racial identity centrality and sexual identity centrality did not explain additional variance in the model. In this study, interpersonal rejection sensitivity was not associated with race-based rejection sensitivity. Extant research concerning the association between RS-race and general interpersonal rejection sensitivity factors has been somewhat mixed. In the initial development of the RSQ-Race, RSQ-Race was significantly positively related to interpersonal rejection sensitivity (measured by the RSQ; Downey & Feldman, 1996) (Mendoza-Denton et al., 2002). However, the authors of the RSQ-race found that race-based rejection sensitivity was not related to measures of self-esteem when interpersonal rejection sensitivity was controlled for (Mendoza-Denton et al., 2002). In another study of African-American undergraduate college students, RS-race was not significantly related to the RSQ (Mendoza-Denton, Pietrzak, & Downey, 2008). RS-race was also uncorrelated with the RSQ in community samples of African-American adults (Page-Gould, Mendoza-Denton, & Mendes, 2014). In contrast, RS-race has been found to be positively related to the construct of neuroticism, a personality trait where individuals are sensitive to rejection and tend to get their feelings hurt in response to social exclusion (Henson et al., 2013).

One explanation for the discrepancies in these findings may be how well individuals are able to evaluate the likelihood of rejection. In the RSQ and the RSQ-Race, individuals are asked

to rate how anxious they would be regarding rejection in a given scenario, and then rate how likely rejection by others would be in a scenario. Individuals who endorse items related to the construct of neuroticism more strongly, such as those who report being stressed easily and worrying frequently (Henson et al., 2013), may react vigilantly to negative social cues (Denissen & Penke, 2008) and may then rate both their anxiety and expectation of rejection highly in all scenarios. Others may be able to rate the likelihood of being rejected in a more balanced way, (e.g. I may be anxious about asking my parents for money, but I would not expect them to say no) which would reduce their overall score (anxiety and expectation rating for each item are averaged).

Another possible explanation for the lack of a significant association between RS-race and interpersonal rejection sensitivity is that African-American/Black individuals may be able to view being discriminated against due to their race as separate from their concept of self. This ability to separate sense of self from discrimination may be due to racial socialization. Racial socialization is the messages (both explicit and implicit) that Black/African-American individuals receive from their parents about race (Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007). Research shows that for individuals who receive a moderate amount of preparation regarding racial bias (not too much or too little preparation), their experiences of discrimination are not related to their reported levels of self-esteem (Harris-Britt et al., 2007). Research should continue to explore the many factors which may be associated with race-based rejection sensitivity, in order to better understand what influences African-American/Black individuals' experiences of expected rejection.

A post-hoc analysis with just the African-American/Black participants was also conducted, exploring how the two identity centralities (racial and sexual) may contribute to

sexual orientation-based rejection sensitivity. Like the results of the entire sample, sexual identity centrality was significantly related to sexual orientation-based rejection sensitivity among African-American/Black participants. No main effects were found for racial identity centrality, and there was no significant interaction effect.

Future research should continue to explore the construct of race-based rejection sensitivity, as the results of this study suggest that African-American individuals' expectations of rejection based on their race may be conceptually different than their expectations of rejection in interpersonal relationships or based on their sexual identity. Participants in this study rated three individual items of the RSQ-Race items relatively higher than other items on the measure. Specifically, participants reported relatively higher anxiety and higher expectations of discrimination for the following three scenarios: being followed by the manager while shopping at a convenience store (Item 2;  $M = 17$ ); being stopped by a security guard when exiting a store and the alarm rings (Item 6;  $M = 17$ ); and being pulled over by police at a roadblock (Item 9;  $M = 22$ ). Values for items on the RSQ-Race range from 1-36; and the three items described above had the largest mean scores. Moreover, these were the only three items with mean values greater than 1.5 SD above the mean for the overall RSQ-Race. These items are similar in that they represent situations with potentially high consequences for the individual compared to other scenarios in the measure where the consequences would likely be less severe, such as not being called upon in class by the professor or not being considered for a job based on their race. Realistic outcomes for the three highly rated situations could include being harassed, arrested, or possibly being assaulted. Given the increase in media attention to violent incidents involving African-American individuals and the police, the potential negative consequences of these situations may be more salient for participants, resulting in experiencing more anxiety when

considering these situations, compared to other scenarios. Race-based rejection sensitivity appears to be a complex construct, as well as a complex experience for African-American sexual minority women.

### **Alcohol-Related Outcomes**

Alcohol use and alcohol-related outcomes were variables of interest for this study, as epidemiological studies have consistently demonstrated that lesbian and bisexual women meet criteria for alcohol use disorders at higher rates compared to heterosexual women (Drabble et al., 2005; McCabe et al., 2009), and the extent to which young, diverse sexual minority women may be engaging in problematic alcohol use is less well known. Emerging adulthood is generally the developmental period with the highest risk for individuals developing alcohol use disorders and engaging in heavy episodic drinking (HED) behaviors. A recent study reported an increased likelihood of HED behaviors among non-heterosexual identified females ages 15-24 (Talley et al., 2016).

In the current sample, the mean scores for alcohol use and alcohol consumption fell below the hazardous drinking range indicator (AUDIT scores of 5) for women; however, 37% of the sample scored a 5 or higher, which classified them as engaging in hazardous drinking, a pattern of alcohol use that increases risk for adverse health events, such as medical and mental health problems (Babor et al., 2001; Reid, Fiellen, & O'Connor, 1999). Additionally, 28% of the sample reported engaging in alcohol consumption above the recommended quantity and frequency limits for women (AUDIT-C score of 4 or higher). These results are consistent with other studies in the literature, in a variety of samples of SMW. For instance, Talley et. al. (2014) reported that 21% of sexual minority female adolescents (ages 13-18) reported past month heavy episodic drinking (5 or more drinks on one occasion). In a nationally representative survey,

McCabe et al. (2009) reported that 20% of lesbian women and 25% of bisexual women surveyed reported heavy episodic drinking over the past year (4-5 drinks over the course of 2 hours).

Hughes et al., (2006) reported that within their sample of self-identified lesbian women, 19.4% were classified as moderate drinkers, and 7.6% were classified as heavy drinkers, based on daily alcohol consumption. The descriptive statistics from this study suggest that problematic patterns of alcohol use are present in emerging adulthood for sexual minority women, which may contribute to poorer mental and physical health outcomes over their lifetimes.

Counter to expectations, sexual identity centrality was not significantly associated with hazardous alcohol use or consequences of alcohol use in the current sample. The lack of findings related to sexual identity centrality suggests that the importance of an individual's identity to their self-concept may not directly contribute to alcohol-related outcomes. It may be more likely that sexual identity centrality is indirectly related to risk factors that may increase the probability of an individual engaging in hazardous alcohol use, such as frequent attendance at LGBT friendly bars, rather than directly contributing to alcohol use or alcohol-related consequences.

Alcohol consumption, as measured by the AUDIT-C, was negatively related to concealment of sexual identity, although the effect size was small. This may indicate young LB women who are more "out" may be drinking frequently during the week and have frequent heavy episodic drinking episodes. Extant research has focused on exploring the relationship between experienced sexual minority stressors (such as making the effort to conceal their sexual identity from others) and using alcohol as a coping strategy, consistent with the prevailing theory as to how sexual minority stress contributes to the development of psychopathology among sexual minority individuals (Hatzenbuehler, 2009). Prior research with sexual minority women has shown that sexual minority stressors, including concealment, are related to less interpersonal and intrapersonal resources. Fewer resources were then associated with higher rates of substance abuse, including problematic alcohol

use (Lehavot & Simoni, 2011). However, in this sample, the relationship between concealment and alcohol consumption was different; that less concealment was associated with greater consumption. This association, although a small effect size, warrants that researchers continue to consider the various ways that psychosocial stressors and health outcomes for SMW are connected, and underscores the importance of understanding how this population is at risk for hazardous and harmful alcohol use.

Significant main effects for race/ethnicity were found for hazardous alcohol use, in that African-American/Black women reported less hazardous drinking compared to White women. Additionally, African-American/Black women reported less alcohol consumption and fewer consequences of alcohol use compared to White women. This is consistent with results reported in previous studies. Balsam et al. (2015) found that young Black LB women had lower peak drinking (amount of alcohol consumed over time during heaviest past month drinking episode) compared to young White LB women. Similarly, Calhoun et al. (2016) found that African-American/Black lesbian women (ages 18-30) reported less hazardous drinking compared to their White counterparts. The results of this study support the finding that young, African-American/Black LB women engage in less problematic alcohol consumption compared to White women, in contrast to the expectation that they may engage in more problematic use to cope with increased stressors due to their multiple minority status.

These findings related to Black/African-American LB women and alcohol use are consistent with what has been documented in literature concerning the general population of African-American individuals (Keyes, Hatzenbuehler, Grant, & Hasin, 2012), and suggest that race/ethnicity is also a protective factor against hazardous alcohol use in young, sexual minority African-American/Black women. The results of this study may demonstrate unique resilience among young, Black lesbian women, or they may alternatively suggest that Black lesbian women

may not be as influenced by the LGB social and cultural norms related to drinking. Further investigation of lifetime trends of alcohol use among African-American sexual minority women may provide additional insight if this is a protective factor for this population, regardless of age. It may also be worth investigating the extent to which other variables impact reported alcohol use within this population, such as socio-economic status and education.

### **Sexual Minority Stress Outcomes**

Most of the sample reported being "out" to others, friends, and their parents, and reported fairly low levels of sexual minority stress. Sexual identity centrality was not associated with proximal minority stress, as measured by the Negative Identity Composite of the LGBIS. Similarly, race/ethnicity was not associated with proximal minority stress. The lack of findings may suggest that additional protective factors are present in the sample which contributed to the non-significant association. For example, social support (not measured in this study) is an important protective factor with regards to adverse mental health outcomes in sexual minority individuals (Hatzenbuehler, 2009). As this sample was relatively out to both friends and parents, and most of the sample reported dating or being in a romantic relationship, it is possible that their support systems served as a buffer against the effects of proximal minority stressors.

An additional explanation regarding the lack of expected findings with regards to sexual minority stressors and sexual identity centrality is that the direction of the association is actually reversed; that discrimination may have an effect on the centrality of an individual's identity. Research on the effects of prejudice has found that the more individuals who belong to a devalued social group are aware of prejudices against their group, the stronger their identification with that group becomes (Branscombe, Schmitt, & Harvey, 1999). Branscombe et al. (1999) examined the relationship between minority group identification (African-American/Black) and



perceived (racial) discrimination, and tested two pathways: that stronger identification leads to greater perception of discrimination (identification-attribute model), and that perceived discrimination leads to stronger identification with minority group (rejection-identification model). Among a sample of African-American adults, they found support for both pathways, but the rejection-identification model was a better fit for the data (Branscombe et al., 1999). This may also be true for sexual minority individuals, that their experiences or expectations of discrimination may lead to an increase in the importance of their sexual identity to their self-concept. Future research should explore the rejection-identification model within the context of sexual minority identity and perceived sexual orientation-based rejection sensitivity.

### **Findings Related to Sexual Identity**

Fewer significant differences were found between lesbian and bisexual women on the outcome variables of interest than were expected. No significant differences emerged between lesbian and bisexual women with regards to alcohol use and related consequences, which is interesting, given that bisexual women tend to report more hazardous alcohol use, past year intoxication and dependence symptoms, and problems related to alcohol, compared to lesbian women (Wilsnack et al., 2008). No significant differences occurred between lesbian and bisexual women on measures of proximal minority stress. These results are consistent with those reported by Balsam and Mohr (2007), who found no significant differences between bisexual and LG participants on measures of stigma sensitivity and internalized homophobia. More research is needed to fully understand how rejection sensitivity contributes to the development of psychopathology among sexual minority women.

The only significant difference between lesbian and bisexual women was on reported identity centrality. Lesbian women reported higher levels of sexual identity centrality compared

to bisexual women. This result seems consistent with previously reported dynamics of the bisexual identity development process, as bisexual women experience greater identity uncertainty, less connection with the LGBT community, and generally report being less "out" than lesbian women (Balsam & Mohr, 2007; Dyar et al., 2015). Lower levels of sexual identity centrality may suggest that bisexual women are at lower risk for the effects of proximal stressors and sexual orientation-based rejection sensitivity; however, lower levels of identity centrality may be a barrier for bisexual individuals in receiving positive social support, if they don't feel a sense of belonging the LGB community. More research is needed to determine potential risk and resilience factors for young lesbian and bisexual women with regards to identity development and centrality.

**Interaction of sexual identity and race.** The research question for this study explored the effect of race/ethnicity and sexual identity on sexual orientation-based rejection sensitivity. Results demonstrated an interaction between the two independent variables on rejection sensitivity; that rejection sensitivity scores depend both on an individual's race/ethnicity (White or African-American/Black) and sexual identity (lesbian or bisexual). Simple main effects demonstrated that White, lesbian women overall reported higher sexual orientation-based rejection sensitivity scores compared to all other groups. No significant differences were observed between lesbian and bisexual African-American/Black women.

These results suggest that sexual orientation-based rejection sensitivity is more salient for White women than for African-American/Black women. It was expected that African-American/Black women would be more rejection sensitive, compared to White women, due to their multiple minority status. Given that African-American/Black women also reported relatively low race-based rejection sensitivity scores in this sample, it is less clear what may be

contributing to anxiety and expectations of discrimination among this population. It may be prudent to consider these results within the context of how this sample was recruited; women who took the survey readily identified as a sexual minority and were willing to participate in a research study where they would be asked questions about their sexual identity and related experiences. The expected relationship (that African-American/Black women would be more rejection sensitive compared to White women) may be present among women who are less "out" and report higher level of sexual minority stress than the individuals in the current sample.

Bisexual women may not be as anxious regarding discrimination as a sexual minority, because they may be able to "pass" as straight, especially if they are currently dating an opposite-gendered partner. This invisibility may inadvertently serve as a protective factor against rejection sensitivity. More research is needed to fully understand how women with multiple minority identities experience rejection sensitivity within the context of all of their identities.

### **Strengths of the Current Study**

This study utilized a large, diverse sample to examine the relationship between race, rejection sensitivity, identity centrality, alcohol-related outcomes, and sexual minority stressors in lesbian and bisexual women between the ages of 18-25. Further, the study targeted the recruitment of African-American/Black sexual minority women, to conduct specific analyses related to their unique experiences of having multiple minority identities. This is a significant strength of this study, as other racial/ethnic comparison studies concerning sexual minority women have small racial minority samples sizes. Additionally, these variables and outcomes have been largely unexplored with young sexual minority women. The association of identity and rejection sensitivity may offer additional insight into how health disparities manifest in SMW over their lifetimes, given that rejection sensitivity has been found to be related to negative

physical and mental health outcomes in sexual minority individual (Feinstein et al., 2012; Pachankis et al., 2014).

### **Limitations**

The present study utilized a convenience sample of lesbian and bisexual women who were recruited online, and it is unclear whether the results can be generalized to a larger population. Additionally, the data are cross-sectional, so causality cannot be determined. Cross-sectional data regarding sexual minority individuals presents with unique challenges as more is learned about the sexual identity development process. In contrast with classic models of identity development that posit that sexual identity is stable across the lifespan, there is evidence that sexual identity is more fluid over time. For example, in a longitudinal study of young adult sexual minority women, 67% of women reported changing their sexual identity labels at least once in ten years; and 36% reported changing their self-identified labels two or more times in that span (Diamond, 2008). Individuals in the current study were asked to self-identify with prescriptive, traditional labels (e.g. lesbian, bisexual) that may not truly encapsulate their identity, behavior, or attraction over their lifetime. Research with these populations will have to adapt to the changing understanding of sexual identity accordingly.

The focus of this study was on individuals in emerging adulthood, so results from this study may be very different than data collected from younger or older individuals. Further, given the continuing cultural shift towards broader acceptance of sexual minorities, the experiences of emerging adults in a few years may also look very different than the results reported here. While the sample was large, the majority of the participants identified as Non-Hispanic White, and the only racial/ethnic comparisons that were able to be made were between White and African-American-Black women. Participants reported relatively low levels of sexual minority stress, and

were generally "out." This indicates that these results may not be representative of all lesbian and bisexual women, especially those may still be concealing their sexual identity. The study was also limited by reliance on self-report measures. With regards to the inclusion of both lesbian and bisexual women in the sample, the guidelines from the Institute of Medicine Report (IOM, 2011) suggest that lesbian and bisexual women should be studied separately, as they are understood to be independent and separate populations from each other. This study was able to recruit enough self-identified lesbian and bisexual women so that between-group MANOVAs could be conducted, but the two groups were combined to meet the larger power requirements for the hierarchical regression analyses. This may have resulted in important nuances that exist in these two distinct populations being obscured.

### **Directions for Future Research**

The findings from the current study have important implications for the direction and focus of future research. First, consistent with expectations, the importance of one's identity to their sense of self-concept is associated with the extent to which they experience anxious expectations of discrimination. Interestingly, for African-American/Black women, interpersonal rejection sensitivity was not associated with race-based rejection sensitivity. More research is needed to understand the complex way African-American/Black sexual minority women experience expectation of rejection with regards to their multiple identities.

Of particular interest may be how religion and spirituality impact variables like rejection sensitivity and sexual minority stress among Black LB women. Religion is an important part of the Black community, and has historically played a large role in the development of personal values among Black Americans (Walker & Longmire-Avital, 2013). Religious faith has long been understood as a way for the Black community to effectively buffer the effects of racism and

social injustice. However, religion may also contribute to negative psychosocial outcomes in Black sexual minority individuals if they affiliate with institutions that have negative stances with regards to same-sex behavior (Walker & Longmire-Avital, 2013). In a study examining the effects of religion on resiliency among a cohort of young Black LGB men and women, participants who reported high levels of religious faith and high levels of internalized homophobia also reported high resiliency, or the ability to handle changes and stressors in their lives. These results suggest that religion offers significant benefits to this population; more research is needed to fully understand the extent to which religion may help buffer the effects of sexual minority stress.

Extant research suggests that rejection sensitivity is associated with negative mental health outcomes among sexual minority individuals, including depression, anxiety, and substance use (Feinstein et al., 2012; Pachankis et al., 2014). Given this relationship, further research is needed to understand how other at-risk sexual minority groups, including transgender and gender non-conforming individuals (TGNC), experience rejection sensitivity. Discrimination and victimization rates among TGNC individuals are extremely high, and a recent qualitative study suggests that rejection is an important and salient stressor among this population (Rood, Reisner, Surace, Puckett, Maroney, & Pantalone, 2016). A better understanding is needed regarding the impact of rejection on health and psychosocial outcomes for TGNC individuals. Additionally, the experiences of TGNC individuals of color may also warrant further consideration and exploration.

Interventions and considerations regarding alcohol use and SMW continue to be a priority. In the current sample, 37% of participants scored a 5 or higher on the AUDIT, indicating hazardous and harmful drinking behaviors. Given the young age of the sample, and

that age has not been shown to be a protective factor with regards to alcohol use among sexual minority women (Green & Feinstein, 2012), these patterns of problematic alcohol use may lead to serious negative physical and mental health outcomes over the course of these women's' lives. Interventions targeting alcohol use among LB women should recognize the early age at which problematic use patterns begin to emerge, and focus on harm-reduction strategies, such as encouraging young women to drink within the recommended limits from an early age. Clinicians working with this populations should also be knowledgeable about the minority stress theory (Meyer, 2003) and be able to work with LB clients to develop positive coping skills.

Additionally, this study found no significant results related to proximal minority stress, which may be related to the majority of the sample being "out." Low levels of sexual minority stress may suggest a greater level of well-being for young LB women who are out during the emerging adulthood period, and may be indicative of an important trend in health outcomes for this population, compared to older sexual minority women. Individuals in this sample reported coming out in late adolescence, which may indicate increased time to develop social support and positive coping strategies. Further exploration of the association between rejection sensitivity and proximal minority stressors among sexual minority women may be warranted, given that the present study was unable to find any significant relationship.

This study also focused on largely on individuals who identified as biologically female and identified their gender as female. Information regarding gender non-conformity was not examined. Gender non-conformity refers to gender expressions which do not follow stereotypical or traditional gender roles. This can include women who are more masculine in their dress and mannerisms, or individuals who expressions do not fit within either traditional binary gender expression (Puckett, Maroney, Levitt, & Horne, 2016). In a recent study, gender non-conformity

was related to greater experiences and expectations of prejudice, and increased distress and anxiety (Puckett et al., 2016), suggesting that gender expression may impact the extent to which an individual experiences expectations of rejection, and is an important factor to consider when conceptualizing minority stress.



## **CHAPTER V**

### **CONCLUSIONS**

The present study utilized a large sample of young, diverse, self-identified lesbian and bisexual women, between the ages of 18-25, to examine the relationship among identity centrality, race/ethnicity, rejection sensitivity, alcohol-related outcomes, and proximal minority stress. Overall, significant positive associations were found between sexual identity centrality and sexual orientation-based rejection sensitivity, and significant positive associations between racial identity centrality and race-based rejection sensitivity. LB women who indicated that their sexual identity was important to their self-concept reported greater anxiety and expectations of discrimination compared to those who indicated their sexual identity was not as important to their self-concept. Similarly, African-American/Black individuals who reported that their racial identity was very important to their self-concept reported greater anxiety and expectations of race-based discrimination compared to those who indicated their racial identity was not as important to their self-concept.

Lesbian women reported greater identity centrality than bisexual women, and African-American/Black women reported less hazardous alcohol use, less risky drinking behaviors, and fewer consequences of alcohol use compared to White women. Sexual identity centrality was not associated with alcohol use or related outcomes, or with proximal sexual minority stressors. Race/ethnicity was also not associated with proximal sexual minority stressors. No significant differences were found between lesbian and bisexual women on measures of alcohol use, consequences of alcohol use, or proximal sexual minority stressors. These results showed fewer poorer outcomes for sexual minority women of color than expected. Lower levels of alcohol use may indicate that race is a protective factor for young African-American/Black lesbian and

bisexual women regarding hazardous alcohol use, risky drinking behaviors, and consequences of alcohol use.

Additionally, White women reported greater sexual orientation-based rejection sensitivity compared to African-American/Black women, and for White women, lesbian women reported greater sexual orientation-based rejection sensitivity than bisexual women. The failure to find some of the hypothesized differences in the present study may have been influenced by the relative "outness" of the sample. However, this study was able to demonstrate meaningful associations between sexual identity centrality and rejection sensitivity among young, lesbian and bisexual women that have been previously unexplored, and meaningful group differences based on sexual identity and race/ethnicity were also found.

## REFERENCES

- Abbey, J.D., & Meloy, M.G. (2017). Attention by design: Using attention checks to detect inattentive respondents and improve data quality. *Journal of Operations Management*, 53-56, 63-70. doi:10.1016/j.jom.2017.06.001
- Aranda, F., Matthews, A. K., Hughes, T. L., Muramatsu, N., Wilsnack, S. C., Johnson, T. P., & Riley, B. B. (2015). Coming out in color: Racial/ethnic differences in the relationship between level of sexual identity disclosure and depression among lesbians. *Cultural Diversity and Ethnic Minority Psychology*, 21, 247-257. doi:10.1037/a0037644
- Arnett, J.J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55, 469-480. doi:10.1037//0033-066X.55.5.469
- Arnett, J.J. (2005). The developmental context of substance use in emerging adulthood. *Journal of Drug Issues*, 35, 235-254. doi:10.1177/002204260503500202
- Babor, T.F., Higgins-Biddle, J.C., Saunders, J.B., & Monteiro, M.G. (2001). *The alcohol use disorders identification test (AUDIT) guidelines for use in primary care*. World Health Organization, Geneva, Switzerland.
- Balsam, K. F., Molina, Y., Beadnell, B., Simoni, J., & Walters, K. (2011). Measuring multiple minority stress: the LGBT people of color microaggressions scale. *Cultural Diversity and Ethnic Minority Psychology*, 17, 163. doi:10.1037/a0023244
- Balsam, K.F., & Mohr, J.J. (2007). Adaptation to sexual orientation stigma: A comparison of bisexual and lesbian/gay adults. *Journal of Counseling Psychology*, 54, 306-319. doi:10.1037/0022-0167.54.3.306
- Balsam, K. F., Molina, Y., Blayney, J. A., Dillworth, T., Zimmerman, L., & Kaysen, D. (2015). Racial/ethnic differences in identity and mental health outcomes among young sexual

- minority women. *Cultural Diversity and Ethnic Minority Psychology*, 21, 380-390.  
doi:10.1037/a0038680
- Balsam, K. F., & Szymanski, D. M. (2005). Relationship quality and domestic violence in women's same-sex relationships: the role of minority stress. *Psychology of Women Quarterly*, 29, 258-269. doi:10.1111/j.1471-6402.2005.00220.x
- Bowleg, L. (2008). When Black + lesbian + woman  $\neq$  Black lesbian woman: The methodological challenges of qualitative and quantitative intersectionality research. *Sex Roles*, 59, 312-325. doi:10.1007/s11199-008-9400-z
- Bowleg, L., Burkholder, G., Teti, M., & Craig, M.L. (2009). The complexities of outness: Psychosocial predictors of coming out to others among Black lesbian and bisexual women. *Journal of LGBT Health Research*, 4, 153-166.  
doi:10.1080/15574090903167422
- Bowleg, L., Huang, J., Brooks, K., Black, A., & Burkholder, G. (2003). Triple jeopardy and beyond: Multiple minority stress and resilience among Black lesbians. *Journal of Lesbian Studies*, 7, 87-108. doi:10.1300/J155v07n04\_06
- Braitman, A.L. (2016). Data cleaning workshop: How to prepare your data prior to analysis [PowerPoint slides]. Retrieved from <https://fs.wp.odu.edu/abraitma/workshops/>
- Branscombe, N.R., Schmitt, M.T., & Harvey, R.D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology*, 77, 135-149. doi:10.1037/0022-3514.77.1.135
- Brewster, M. E., Moradi, B., DeBlare, C., & Velez, B. L. (2013). Navigating the borderlands: The roles of minority stressors, bicultural self-efficacy, and cognitive flexibility in the

- mental health of bisexual individuals. *Journal of Counseling Psychology*, 60, 542-556.  
doi:10.1037/a0033224
- Brown, M.B., & Forsythe, A.B. (1974). The small sample behavior of some statistics which test the equality of several means. *Technometrics*, 16, 129-132.  
doi:10.1080/00401706.1974.10489158.
- Buchner, A., Erdfelder, E., Faul, F., & Lang, A. (2013). G\*Power (Version 3.1.7) [Computer software]. Düsseldorf, Germany: Universität Düsseldorf.
- Bush, K., Kivlahan, D. R., McDonell, M. S., Fihn, S. D. and Bradley, K. A. (1998). The AUDIT Alcohol Consumption Questions (AUDIT-C): an effective brief screening test for problem drinking. *Archives of Internal Medicine*, 158, 1789-1795.  
doi:10.1001/archinte.158.16.1789
- Calabrese, S.K., Meyer, I.H., Overstreet, N.M., Haile, R., & Hansen, N.B. (2015). Exploring discrimination and mental health disparities faced by black sexual minority women using a minority stress framework. *Psychology of Women Quarterly*, 39, 287-304.  
doi:10.1177/0361684314560730
- Calhoun, D.M., Lewis, R.J., & Braitman, A.L. (2016). *Racial/ethnic differences in lesbian women's IPV, hazardous drinking, parental violence, and sexual minority stress*. Poster presented at the 28<sup>th</sup> Annual Association for Psychological Science Convention, Chicago, IL.
- Cochran, S.D., & Mays, V.M. (2007). Physical health complaints among lesbians, gay men, and bisexual and homosexually experienced heterosexual individuals: Results from the California Quality of Life Study. *American Journal of Public Health*, 97, 2048-2055.  
doi:10.2105/AJPH.2006.087254

- 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 Consulting and Clinical Psychology, 71*, 53-61. doi:10.1037/0022-006x.71.1.53
- Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science, 1*, 98-101.
- Cramer, R.J., Burks, A.C., Golom, F.D., Stroud, C.H., & Graham, J.L. (2017). The lesbian, gay, and bisexual identity scale: Factor analytic evidence and associations with health and well-being. *Measurement and Evaluations in Counseling and Development, 49*, 1-20. doi:10.1177/0748175616664014
- Denissen, J.J.A., & Penke, L. (2008). Neuroticism predicts reactions to cues of social inclusion. *European Journal of Personality, 22*, 497-517. doi:10.1002/per.682
- Dermody, S.S., Marshal, M.P., Cheong, J., Burton, C., Hughes, T., Aranda, F., & Friedman, M.S. (2014). Longitudinal disparities of hazardous drinking between sexual minority and heterosexual individuals from adolescence to young adulthood. *Journal of Youth and Adolescence, 43*, 30-39. doi:10.1007/s10964-013-9905-9
- Diamond, L. M. (2008). Female bisexuality from adolescence to adulthood: Results from a 10-year longitudinal study. *Developmental Psychology, 44*, 5-14. doi:10.1037/0012-1649.44.1.5
- Downey, G., & Feldman, S.I. (1996). Implications of rejection sensitivity for intimate relationships. *Journal of Personality and Social Psychology, 70*, 1327-1343. doi:10.1037/0022-3514.70.61327

- Drabble, L., Midanik, L.T., & Trocki, K. (2005). Reports of alcohol consumption and alcohol-related problems among homosexual, bisexual, and heterosexual respondents: Results from the 2000 national alcohol survey. *Journal of Studies on Alcohol*, 66, 111-120.
- Dyar, C., Feinstein, B.A., Eaton, N.R., & London, B. (2016). Development and initial validation of the sexual minority women rejection sensitivity scale. *Psychology of Women Quarterly*, 40, 120-137. doi:10.1177/0361684315608843
- Dyar, C., Feinstein, B.A., Eaton, N.R., & London, B. (2016). The mediating roles of rejection sensitivity and proximal stress in the association between discrimination and internalizing symptoms among sexual minority women. *Archives of Sexual Behavior*, 1-14. doi:10.1007/s10508-016-0869-1
- Dyar, C., Feinstein, B.A., & London, B. (2015). Mediators of differences between lesbian and bisexual women in sexual identity and minority stress. *Psychology of Sexual Orientation and Gender Diversity*, 2, 43-51. doi:10.1037/sgd0000090
- Feinstein, B.A., Goldfried, M.R., & Davila, J. (2012). The relationship between experiences of discrimination and mental health among lesbians and gay men: An examination of internalized homonegativity and rejection sensitivity as potential mechanisms. *Journal of Consulting and Clinical Psychology*, 80, 917-927. doi:10.1037/a0029425
- Floyd, F.J., & Stein, T.S. (2002). Sexual orientation identity formation among gay, lesbian, and bisexual youths: Multiple patterns of milestone experiences. *Journal of Research on Adolescence*, 12, 167-191. doi:10.1111/1532-7795.00030
- Green, K.E., & Feinstein, B.A. (2012). Substance use in lesbian, gay, and bisexual populations: An update on empirical research and implications for treatment. *Psychology of Addictive Behaviors*, 26, 265-278. doi:10.1037/a0025424

- Greene, B. (2000). African American lesbian and bisexual women. *Journal of Social Issues*, 56, 239-249. doi:10.1111/0022-4537.00163
- Grov, C., Bimbi, D. S., Nanín, J. E., & Parsons, J. T. (2006). Race, ethnicity, gender, and generational factors associated with the coming-out process among gay, lesbian, and bisexual individuals. *Journal of Sex Research*, 43, 115-121. doi:10.1080/00224490609552306
- Harper, G.W., Jernewall, N., & Zea, M.C. (2004). Giving voice to emerging science and theory for lesbian, gay, and bisexual people of color. *Cultural Diversity and Ethnic Minority Psychology*, 10, 187-199. doi:10.1037/1099-9809.10.3.187
- Harris-Britt, A., Valrie, C.R., Kurtz-Costes, B., & Rowley, S.J. (2007). Perceived racial discrimination and self-esteem in African-American youth: Racial socialization as a protective factor. *Journal of Research on Adolescence*, 17, 669-682. doi:10.1111/j.1532-7795.2007.0054.x.
- Hatzenbuehler, M. L. (2009). How does sexual minority stigma "get under the skin?" A psychological mediation framework. *Psychological Bulletin*, 135, 707-730. doi:10.1037/a00116441
- Henson, J.M., Derlega, V.J., Pearson, M.R., Ferrer, R., & Holmes, K. (2013). African-American students ' responses to racial discrimination: How race-based rejection sensitivity and social constraints are related to psychological reactions. *Journal of Social and Clinical Psychology*, 32, 504-529. doi:10.1521/jscp.2013.32.5.504
- Hequembourg, A.L., & Brallier, S.A. (2009). An exploration of sexual minority stress across the lines of gender and sexual identity. *Journal of Homosexuality*, 56, 273-298. doi:10.1080/00918360902728517



IBM Corp. (2013). IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.

Institute of Medicine. (2011). *The health of lesbian, gay, bisexual, and transgender people:*

*Building a foundation for better understanding.* Washington, D.C.: The National Academies Press.

Kahler, C.W., Strong, D.R., & Read, J.P. (2005). Toward efficient and comprehensive measurement of the alcohol problems continuum in college students: The brief young adult alcohol consequences questionnaire. *Alcoholism: Clinical and Experimental Research*, 29, 1180-1189.

Keselman, H.J., Algina, J., Lix, L.M., Wilcox, R.R., & Deering, K.N. (2008). A generally robust approach for testing hypotheses and setting confidence intervals for effect sizes. *Psychological Methods*, 13, 110-129. doi:10.1037/1082-989X.13.2.110

Keyes, K. M., Hatzenbuehler, M. L., Grant, B. F., & Hasin, D. S. (2012). Stress and alcohol: Epidemiological evidence. *Alcohol Research: Current Reviews*, 34, 391-400. Retrieved from <http://pubs.niaaa.nih.gov/publications/arcr344/391-400.htm>

Lea, T., Reynolds, R., & Wit, J. (2013). Alcohol and other drug use, club drug dependence and treatment seeking among lesbian, gay, and bisexual young people in Sydney. *Drug and Alcohol Review*, 32, 303-311. doi:10.1111/dar.12004

Lehavot, K., & Simoni, J.M. (2011). The impact of minority stress on mental health and substance use among sexual minority women. *Journal of Consulting and Clinical Psychology*, 79, 159-170. doi:10.1037/a0022839

McCabe, S.E., Hughes, T.L., Bostwick, W.B., West, B.T., & Boyd, C.J. (2009). Sexual orientation, substance use behaviors, and substance dependence in the United States. *Addiction*, 104, 1333-1345. doi:10.1111/j.1360-0443.2009.02596.x

McCambridge, J., & Day, M. (2008). Randomized controlled trial of the effects of completing the Alcohol Use Disorders Identification Test questionnaire on self-reported hazardous drinking. *Addiction*, *103*, 241–248. doi:10.1111/j.1360-0443.2007.02080.x

Meidlinger, P.C., & Hope, D.A. (2014). Differentiating disclosure and concealment in measurement of outness for sexual minorities: The Nebraska outness scale. *Psychology of Sexual Orientation and Gender Diversity*, *1*, 489-497.

Mendoza-Denton, R., Downey, G., Purdie, V.J., Davis, A., & Pietrzak, J. (2002). Sensitivity to status-based rejection: Implications for African-American students' college experience. *Journal of Personality and Social Psychology*, *83*, 896-918. doi:10.1037//0022-3514.83.4.896

Mendoza-Denton, R., Pietrzak, J., & Downey, G. (2008). Distinguishing institutional identification from academic goal pursuit: Interactive effects of ethnic identification and race-based rejection sensitivity. *Journal of Personality and Social Psychology*, *95*, 338-351. doi:10.1037/0022-3514.95.2.338

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. doi:10.1037/0033-2909.129.5.674

Mohr, J.J., & Kendra, M.S. (2011). Revision and extension of a multidimensional measure of sexual minority identity: The lesbian, gay, and bisexual identity scale. *Journal of Counseling Psychology*, *58*, 234-245. doi:10.1037/a0022858

Mohr, J.J., & Kendra, M.S. (2012). *The lesbian, gay, and bisexual identity scale (LGBIS)*. Measurement instrument database for the social sciences. Retrieved from [www.midss.ie](http://www.midss.ie)

- Molina, Y., Lehavot, K., Beadnell, B., & Simoni, J. (2014). Racial disparities in health behaviors and conditions among lesbian and bisexual women: The role of internalized stigma. *LGBT Health, 1*, 131-139. doi:10.1089/lgbt.2013.0007
- Morgan, E.M. (2013). Contemporary issues in sexual orientation and identity development in emerging adulthood. *Emerging Adulthood, 1*, 52-66. doi:10.1177/2167696812469187
- Newcomb, M.E., & Mustanski, B. (2010). Internalized homophobia and internalizing mental health problems: A meta-analytic review. *Clinical Psychology Review, 30*, 1019-1029. doi:10.1016/j.cpr.2010.07.003
- Nordqvist, C., Johansson, K., & Bendtsen, P. (2004). Routine screening for risky alcohol consumption at an emergency department using the AUDIT-C questionnaire. *Drug and Alcohol Dependence, 74*, 71-75. doi:10.1016/j.drugacldp.2003.11.010
- Pachankis, J.E., Goldfried, M.R., & Ramratten, M.E. (2008). Extension of the rejection sensitivity construct to the interpersonal functioning of gay men. *Journal of Consulting and Clinical Psychology, 76*, 306-317. doi:10.1037/0022-006X.76.2.306
- Pachankis, J.E., Hatzenbuehler, M.L., & Starks, T.J. (2014). The influence of structural stigma and rejection sensitivity on young sexual minority men's daily tobacco and alcohol use. *Social Science & Medicine, 103*, 67-75. doi:10.1016/j.socscimed.2013.10.1005
- Page-Gould, E., Mendoza-Denton, R., & Mendes, W.B. (2014). Stress and coping in interracial contexts: The influence of race-based rejection sensitivity and cross-group friendship in daily experiences of health. *Journal of Social Issues, 70*, 256-278. doi:10.1111/josi.12059
- Parent, M. C., DeBlaere, C., & Moradi, B. (2013). Approaches to research on intersectionality: Perspectives on gender, LGBT, and racial/ethnic identities. *Sex Roles, 68*, 639-645. doi:10.1007/s11199-013-0283-2

- Parks, C.A., Hughes, T.L., & Matthews, A.K. (2004). Race/ethnicity and sexual orientation: Intersecting identities. *Cultural Diversity and Ethnic Minority Psychology, 10*, 241-254.  
doi:10.1037/1099-9809.10.3.241
- Puckett, J.A., Maroney, M.R., Levitt, H.M., & Horne, S.G. (2016). Relations between gender expression, minority stress, and mental health in cisgender sexual minority men and women. *Psychology of Sexual Orientation and Gender Diversity, 3*, 489-498.  
doi:10.1037/sgd0000201
- 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.  
doi:10.1037/a0015815
- Quinn, D.M, Williams, M.K., Quintana, F., Gaskins, J.L., Overstreet, N.M., Pishori, A., Earnshaw, V.A., Perez, G., & Chaudoir, S.R. (2014). Examining effects of anticipated stigma, centrality, salience, internalization, and outness on psychological distress for people with concealable stigmatized identities. *Journal of Personality and Social Psychology, 97*, 634-649. doi:10.1371/journal.pone.0096977
- Reed, S.J., & Valenti, M.T. (2012). "It ain't all as bad as it may seem": Young Black lesbians' responses to sexual prejudice. *Journal of Homosexuality, 59*, 703-720.  
doi:10.1080/00918369.2012.673940
- Reid, M.C., Fiellin, D.A., & O'Connor, P.G. (1999). Hazardous and harmful alcohol consumption in primary care. *Archives of Internal Medicine, 159*, 1681-1689.  
doi:10.1001/archinte.159.15.1681

- Reinert, D.F., & Allen, J.P. (2007). The Alcohol Use Disorders Identification Test: An update of research findings. *Alcoholism: Clinical and Experimental Research*, 31, 185-199.  
doi:10.1111/j.1530-0277.2006.00295.x
- Rood, B.A., Reisner, S.L., Surace, F.I., Puckett, J.A., Maroney, M.R., & Pantalone, D.W. (2016). Expecting rejection: Understanding the minority stress experiences of transgender and gender-nonconforming individuals. *Transgender Health*, 1, 151-164.  
doi:10.1089/trgh.2016.0012
- Sellers, R.M., Caldwell, C.H., Schmeelk-Cone, K.H., & Zimmerman, M.A. (2003). Racial identity, racial discrimination, perceived stress, and psychological distress among African-American young adults. *Journal of Health and Social Behavior*, 44, 302-317.
- Sellers, R.M., Chavous, T. M., & Cooke, D.Y. (1998). Racial ideology and racial centrality as predictors of African American college students' academic performance. *Journal of Black Psychology*, 24, 8-27.
- Sellers, R.M., Copeland-Linder, N., Martin, P.P., & Lewis, R.L. (2006). Racial identity matters: The relationship between racial discrimination and psychological functioning in African-American adolescents. *Journal of Research on Adolescence*, 16, 187-216.  
doi:10.1111/j.1532-7795.2006.00128.x
- 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.  
doi:10.1037/0022-3514.73.4.805

- 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.  
doi:10.1037/0022-3514.84.5.1079
- Settles, I.H. (2006). Use of an intersectional framework to understand Black women's racial and gender identities. *Sex Roles*, 54, 589-601. doi:10.1007/s11199-006-9029-8
- Settles, I.H. (2004). When multiple identities interfere: The role of identity centrality. *Personality and Social Psychological Bulletin*, 30, 487-500.  
doi:10.1177/1046167203261885
- Stone, A.L., Becker, L.G., Huber, A.M., & Catalano, R.F. (2012). Review of risk and protective factors of substance use and problem use in emerging adulthood. *Addictive Behaviors*, 37, 747-775. doi:10.1016/j.addbeh.2012.02.014
- Sturm, R.M., Breyer, B.N., Li, C., Subak, L.L., Brown, J.S., & Shindel, A.W. (2014). Prevalence of overactive bladder and stress urinary incontinence in women who have sex with women: An internet-based survey. *Journal of Women's Health*, 23, 935-940.  
doi:10.0189/jwh.2014.4878
- Tabachnick, B.G., & Fidell, L.S. (2007). *Using multivariate statistics* (5th ed.) Boston, MA: Pearson Education, Inc.
- Talley, A.E., Gilbert, P.A., Mitchell, J., Goldbach, J., Marshall, B.D.L., & Kaysen, D. (2016). Addressing gaps on risk and resilience factors for alcohol use outcomes in sexual and gender minority populations. *Drug and Alcohol Review*, 35, 484-493.  
doi:10.1111/dar.12387

- Torkelson, J. (2012). A queer vision in emerging adulthood: Seeing sexuality in the transition to adulthood. *Sexuality Research and Social Policy*, 9, 132-142. doi:10.1007/s13178-011-0078-6
- Walker, J.J., & Longmire-Avital, B. (2013). The impact of religious faith and internalized homonegativity on resilience for Black lesbian, gay, and bisexual emerging adults. *Developmental Psychology*, 49, 1723-1731. doi:10.1037/a0031059
- Wilsnack, S.C., Hughes, T.L., Johnson, T.P., Bostwick, W.B., Szalacha, L.A., Benson, P., Aranda, F., & Kinnison, K.E. (2008). Drinking and drinking-related problems among heterosexual and sexual minority women. *Journal of Studies on Alcohol and Drugs*, 69, 129-139. doi:10.15288/jsad.2008.69.129
- Zimmerman, L., Darnell, D.A., Rhew, I.C., Lee, C.M., & Kaysen, D. (2015). Resilience in community: A social ecological developmental model for young adult sexual minority women. *American Journal of Community Psychology*, 55, 179-190. doi:10.1007/s10464-015-9702-6

## **Appendix A**

### **NOTIFICATION ABOUT THE SURVEY: PROJECT IDENTITY**

#### **Introduction**

The purpose of this form is to give you information that may affect your decision whether to say YES or NO to participation in this research. If you decide to say YES, you will be able to continue with the survey after you read this document. By continuing to complete this survey, you are providing your consent. If you do not wish to participate, you may close your browser window now and not continue further with the survey.

#### **Researchers**

Responsible Project Investigator: Robin J. Lewis, Ph.D., Professor, College of Sciences, Psychology Department, Old Dominion University; rlewis@odu.edu; (757) 683-4439

Denise Calhoun, B.S., Doctoral Student, Virginia Consortium Program in Clinical Psychology, dcalh006@odu.edu

#### **Description of Research Study**

In this survey, you will be asked questions about your sense of self, personal feelings about yourself, expectations you might have about relationships and interactions with other people, and questions about your health and related behaviors. This includes questions about your alcohol consumption. If you decide to participate, you will complete a computerized survey (approximately 20-30 minutes).

#### **Exclusionary Criteria**

To be eligible for the present study, you must identify as either a lesbian or bisexual woman, identify as either White/Caucasian or African-American/Black, and be between the ages of 18-25.

#### **Risks And Benefits**

**Risks:** If you decide to participate in this study, then you may face a risk of momentary distress in completing some of the questionnaires. If you experience distress, you may stop the study at any time and resume the survey at a later time if you wish. If you have questions about the study or if you have concerns raised from your participation, you can contact the project investigators. And, as with any research, there is some possibility that you may be subject to risks that have not yet been identified.

**Benefits:** There are no direct benefits for participation in this study. However, you may acquire insight about yourself from answering the questionnaires. This study may also benefit others, as knowledge gained will help broaden understanding of the unique experiences of lesbian and bisexual women.



### **Costs And Payments**

If you decide to participate in this study, you will be entered in a raffle, with the chance to win a gift card, value of \$25, to Amazon.com. Four winners will be chosen at a later date. At the end of the survey, if you wish to be entered in the raffle, you will be provided with a link to a separate website where you can fill out an entry form.

For SONA participants: If you decide to participate in this study, you will receive (1) Psychology Department SONA research credit, which may be applied to course requirements or extra credit in certain Psychology courses. Equivalent credits may be obtained in other ways. You do not have to participate in this study, or any Psychology Department study, in order to obtain this credit.

### **Confidentiality**

All information obtained about you in this study is completely anonymous. Your name will never be associated with your responses. The results of this study may be used in reports, presentations and publications, but your responses cannot be traced back to you.

### **Withdrawal Privilege**

It is OK for you to say NO. Even if you say YES now, you are free to say NO later, and walk away or withdraw from the study -- at any time. The researchers reserve the right to withdraw your participation in this study, at any time, if they observe potential problems with your continued participation.

### **Compensation for Illness and Injury**

If you say YES, then your consent in this document does not waive any of your legal rights. However, in the event of harm arising from this study, neither Old Dominion University nor the researchers are able to give you any money, insurance coverage, free medical care, or any other compensation for such injury. In the event that you suffer injury as a result of participation in any research project, you may contact Dr. Robin J. Lewis at (757) 683-4439, or the Old Dominion University Office of Research at (757) 683-3460 who will be glad to review the matter with you.

### **Voluntary Consent**

Because this is an online survey, continuing to the next page indicates several things. By continuing to the next page you are saying that you have read and that you are satisfied that you understand this form, the research study, and its risks and benefits. If you have any questions about participating in this study, now, or in the future, please contact the investigators. And importantly, by continuing to the next page, you are telling the researcher YES, that you agree to participate in this study.

**Appendix B**  
**DEMOGRAPHIC QUESTIONNAIRE**

Please tell us about yourself:

1. How do you define your sexual identity? Would you say that you are:

- ☐ Only homosexual/lesbian
- ☐ Mostly homosexual/lesbian
- ☐ Bisexual
- ☐ Mostly heterosexual
- ☐ Only heterosexual
- ☐ Other (specify):\_\_\_\_\_.

2. Which of the following best describes who you are sexually attracted to?

- ☐ Only women
- ☐ Mostly women
- ☐ Equally men and women
- ☐ Mostly men
- ☐ Only men
- ☐ Prefer not to answer

3. Which racial group BEST describes you?

- ☐ African American or Black alone
- ☐ American Indian and Alaska Native alone
- ☐ Asian, Asian American, Native Hawaiian, or Pacific Islander alone
- ☐ European American, Caucasian or White alone
- ☐ Latino/a alone
- ☐ Multiracial
- ☐ Other: \_\_\_\_\_

4. **During the past year**, with whom have you had sex?

- ☐ Women only
- ☐ Women and men
- ☐ Men only
- ☐ No one

☐ Prefer not to answer

5. With whom have you had sex in your lifetime?

☐ Women only

☐ Women and men

☐ Men only

☐ No one

☐ Prefer not to answer

6. What is your age? \_\_\_\_\_ years

7. At what age did you first wonder about your sexual identity? \_\_\_\_\_ years

8. At what age did you self-identify as being lesbian/gay/bisexual/other? \_\_\_\_\_ years

9. At what age did you first disclose your sexual identity to someone else? \_\_\_\_\_ years

10. At what age did you first disclose your sexual identity to a parent? \_\_\_\_\_ years

11. At what age did you first disclose your sexual identity to another family member other than a parent? \_\_\_\_\_ years

12. At what age did you first "come out" to friends? \_\_\_\_\_ years

13. At what age did you first "come out" to co-workers? \_\_\_\_\_ years

14. Please indicate your gender:

☐ Male

☐ Female

15. What is your relationship status?

☐ Single/never married

☐ Cohabitating/in a committed relationship or civil union

☐ Married

☐ Divorced

☐ Widowed

☐ Other: \_\_\_\_\_

17. In what state do you currently reside? \_\_\_\_\_

### Appendix C

#### THE MULTIDIMENSIONAL INVENTORY OF BLACK IDENTITY, CENTRALITY SCALE

For each item, please use the following rating scale:

**1----- 2----- 3----- 4 ----- 5----- 6----- 7**

**Disagree Strongly**

**Agree Strongly**

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



## Appendix E

### THE LESBIAN, GAY, AND BISEXUAL IDENTITY SCALE

For each of the following questions, please mark the response that best indicates your current experience as a lesbian or bisexual woman. Please be as honest as possible: Indicate how you really feel now, not how you think you should feel. Answer each question according to your initial reaction and then move on to the next.

Some of you may prefer to use labels other than 'lesbian, gay, and bisexual' to describe your sexual orientation (e.g., 'queer,' 'dyke,' 'questioning'). We use the term LGB in this survey as a convenience, and we ask for your understanding if the term does not completely capture your sexual identity. For each item, please use the following rating scale:

**1----- 2 ----- 3 ----- 4 ----- 5 -----6**

**Disagree Strongly - Disagree - Disagree Somewhat - Agree Somewhat - Agree - Agree Strongly**

1. \_\_\_\_ I prefer to keep my same-sex romantic relationships rather private. (CM)
2. \_\_\_\_ If it were possible, I would choose to be straight. (IH)
3. \_\_\_\_ I'm not totally sure what my sexual orientation is. (IU)
4. \_\_\_\_ I keep careful control over who knows about my same-sex romantic relationships. (CM)
5. \_\_\_\_ I often wonder whether others judge me for my sexual orientation. (AC)
6. \_\_\_\_ I am glad to be an LGB person.
7. \_\_\_\_ I look down on heterosexuals.
8. \_\_\_\_ I keep changing my mind about my sexual orientation. (IU)
9. \_\_\_\_ I can't feel comfortable knowing that others judge me for my sexual orientation. (AC)
10. \_\_\_\_ I feel that LGB people are superior to heterosexuals.
11. \_\_\_\_ My sexual orientation is an insignificant part of who I am. (R) (IC)
12. \_\_\_\_ Admitting to myself that I am an LGB person has been a very painful process. (DP)
13. \_\_\_\_ I'm proud to be part of the LGB community.
14. \_\_\_\_ I can't decide whether I am bisexual or homosexual. (IU)
15. \_\_\_\_ My sexual orientation is a central part of my identity. (IC)

16. \_\_\_\_ I think a lot about how my sexual orientation affects the way people see me. (AC)
17. \_\_\_\_ Admitting to myself that I'm an LGB person has been a very slow process. (DP)
18. \_\_\_\_ Straight people have boring lives compared with LGB people.
19. \_\_\_\_ My sexual orientation is a very personal and private matter. (CM)
20. \_\_\_\_ I wish I were heterosexual. (IH)
21. \_\_\_\_ To understand who I am as a person, you have to know that I'm LGB. (IC)
22. \_\_\_\_ I get very confused when I try to figure out my sexual orientation. (IU)
23. \_\_\_\_ I have felt comfortable with my sexual identity just about from the start. (R) (DP)
24. \_\_\_\_ Being an LGB person is a very important aspect of my life. (IC)
25. \_\_\_\_ I believe being LGB is an important part of me. (IC)
26. \_\_\_\_ I am proud to be LGB.
27. \_\_\_\_ I believe it is unfair that I am attracted to people of the same sex. (IH)

Key:

IC: Identity Centrality Scale

AC: Acceptance Concerns

CM: Concealment Motivations

IU: Identity Uncertainty

IH: Internalized Homonegativity

DP: Difficult Process

## Appendix F

## THE REJECTION SENSITIVITY QUESTIONNAIRE - RACE

1. Imagine that you are in class one day, and the professor asks a particularly difficult question. A few people, including yourself, raise their hands to answer the question.

How concerned/anxious would you be that the professor might not choose you because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

I would expect that the professor might not choose me because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

2. Imagine that you are in a pharmacy, trying to pick out a few items. While you're looking at the different brands, you notice one of the store clerks glancing your way.

How concerned/anxious would you be that the store clerk might be looking at you because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

I would expect that the store clerk might continue to look at me because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

3. Imagine you have just completed a job interview over the telephone. You are in good spirits because the interviewer seemed enthusiastic about your application. Several days later you complete a second interview in person. Your interviewer informs you that they will let you know about their decision soon.

How concerned/anxious would you be that you might not be hired because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

I would expect that I might not be hired because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)



very unlikely

very likely

4. It's late at night, and you are driving down a country road that you are not familiar with. Luckily, there is a 24 hour 7-11 just ahead, so you stop there and head up to the counter to ask the young woman for directions.

How concerned/anxious would you be that she might not help you because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned

very concerned

I would expect that she might not help me because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely

very likely

5. Imagine that a new school counselor is selecting students for a summer scholarship fund that you really want. He has only one scholarship left, and you are one of several students that are eligible for this scholarship.

How concerned/anxious would you be that the counselor might not choose you because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned

very concerned

I would expect that he might not select me because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely

very likely

6. Imagine you have just finished shopping, and you are leaving the store carrying several bags. It's closing time, and several people are filing out of the store at once. Suddenly, the alarm begins to sound, and a security guard comes over to investigate.

How concerned/anxious would you be that the guard would stop you because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned

very concerned

I would expect that the guard might stop me because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely

very likely

7. Imagine you are riding the bus one day. The bus is full except for two seats, one of which is next to you. As the bus comes to the next stop, you notice a woman getting on the bus.

How concerned/anxious would you be that she might avoid sitting next to you because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

I would expect that she might not sit next to me because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

8. Imagine that you are in a restaurant, trying to get the attention of your waitress. A lot of other people are trying to get her attention as well.

How concerned/anxious would you be that she might not attend you right away because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

I would expect that she might not attend to me right away because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

9. Imagine you're driving down the street, and there is a police barricade just ahead. The police officers are randomly pulling people over to check drivers' licenses and registrations.

How concerned/anxious would you be that an officer might pull you over because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

I would expect that the officers might stop me because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

10. Imagine that it's the second day of your new class. The teacher assigned a writing sample yesterday and today the teacher announces that she has finished correcting the papers. You wait for your paper to be returned.

How concerned/anxious would you might receive a lower grade than others because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)  
 very unconcerned very concerned

I would expect that I might receive a lower grade than others because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)  
 very unlikely very likely

11. Imagine that you are standing in line for the ATM machine, and you notice the woman at the machine glances back while she's getting her money.

How concerned/anxious would you be that she might be suspicious of you because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)  
 very unconcerned very concerned

I would expect that she might be suspicious of me because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)  
 very unlikely very likely

12. Imagine you're at a pay phone on a street corner. You have to make a call, but you don't have any change. You decide to go into a store and ask for change for your bill.

How concerned/anxious would you be that the cashier might not give you change because of your race/ethnicity?

(1) - (2) - (3) - (4) - (5) - (6)  
 very unconcerned very concerned

I would expect that the cashier might not give me change because of my race/ethnicity.

(1) - (2) - (3) - (4) - (5) - (6)  
 very unlikely very likely

## Appendix G

## THE SEXUAL MINORITY WOMEN REJECTION SENSITIVITY SCALE

1. You and your female partner are having dinner together at a restaurant. A male customer approaches your table.

How concerned/anxious would you be that the man might sexually harass you because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

How likely is it that the man will sexually harass you because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

2. You and your female partner are leaving a store holding hands. A car drives by, and the driver honks the horn loudly several times.

How concerned/anxious would you be that the driver might have honked because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

How likely is it that the driver honked because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

3. You are on a date with a woman at a restaurant. The waiter provides you and your date with poor service.

How concerned/anxious would you be that the poor service may have been because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

How likely is it that the poor service was because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

4. You and your female partner are walking together holding hands. Several men are gather on a corner outside of a bar.

How concerned/anxious would you be that you may be harassed or assaulted because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that you will be harassed or assaulted because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

5. You are at a bar with a female friend and an intoxicated male approaches you and attempts to pick you up. You turn him down and he reacts angrily, calling you a "dyke."

How concerned/anxious would you be that he might physically assault you because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that he will physically assault you because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

6. You and your female partner are looking to buy a house. After looking at a house together with a realtor, the realtor fails to schedule an appointment to view a house she represents.

How concerned/anxious would you be that the realtor failed to schedule an appointment because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that the realtor failed to schedule an appointment because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

7. A few of your female co-workers regularly try to set you up with men, but they never try to set you up with women.

How concerned/anxious would you be that they may be doing this because they don't accept your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that they are doing this because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

8. You are hanging out with a group of heterosexual female co-workers, and the subject turns to boyfriends and husbands.

How concerned/anxious would you be that they may treat you differently because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that they will treat you differently because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

9. A new female friend of yours makes negative remarks about lesbians.

How concerned/anxious would you be that she may not want to be friends with you if she knew of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that she wouldn't want to friends if she knew of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

10. You disclose your sexual orientation to a new friend. Your friend doesn't express concern about it, but your friendship soon drifts apart.

How concerned/anxious would you be that the drifting apart of this friendship is because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that your friendship drifted apart because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

11. You walk into the locker room at the gym and begin to change. A woman near you moves to a different part of the locker room.

How concerned/anxious would you be that she may have moved because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that she moved because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

12. Your supervisor begins raising concerns about your performance at work for the first time after you bring your female partner to a company picnic.

How concerned/anxious would you be that your supervisor may be raising concerns about your performance at work because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that that your supervisor is raising concerns about your performance at work because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

13. You notice your relatives looking at you and your female partner at a family reunion, but they don't come over to talk to you.

How concerned/anxious would you be that they may not have come over to talk to you because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that they didn't come over to talk to you because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

14. You and your female partner are getting married. Several of your co-workers do not come to the wedding ceremony.

How concerned/anxious would you be that they may not have come because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that they did not come because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

15. The principle at your child's elementary school has never spoken to you and your partner at school events, but you often see him speaking with other parents.

How concerned/anxious would you be that he may not have spoken to you because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that he doesn't speak to you because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely



16. During a lecture on sexual orientation, your professor includes several stereotypes about lesbian and bisexual women as if they were facts. After the lecture, you approach the professor and politely point out the incorrect aspects of the lecture. You receive a lower grade than expected in the class.

How concerned/anxious would you be that you may have received a lower grade in the class because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

How likely is it that you received a lower grade in the class because of your sexual orientation?

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

## Appendix H

## THE REJECTION SENSITIVITY QUESTIONNAIRE

1. You ask someone in class if you can borrow his/her notes.

How concerned/anxious would you be over whether or not this person would want to lend you his/her notes?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

I expect that the person would willingly give me his/her notes.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

2. You ask your boyfriend/girlfriend to move in with you.

How concerned/anxious would you be over whether or not the person would want to move in with you?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

I expect that he/she would want to move in with me.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

3. You ask your parents for help in deciding what programs to apply to.

How concerned/anxious would you be over whether or not your parents would want to help you?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned                      very concerned

I expect that they would want to help me.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely                      very likely

4. You ask someone you don't know well out on a date.

How concerned/anxious would you be over whether or not the person would want to go out with you?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that the person would want to go out with me.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

5. Your boyfriend/girlfriend has plans to go out with friends tonight, but you really want to spend the evening with him/her, and you tell him/her so.

How concerned/anxious would you be over whether or not your boyfriend/girlfriend would decide to stay in?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that the person would willingly choose to stay in.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

6. You ask your parents for extra money to cover living expenses.

How concerned/anxious would you be over whether or not your parents would help you out?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that my parents would not mind helping me out.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

7. After class, you tell your professor that you have been having some trouble with a section of the course, and ask if he/she can give you some extra help.

How concerned/anxious would you be over whether or not your professor would want to help you out?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that my professor would want to help me out.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely

very likely

8. You approach a close friend to talk after doing or saying something that seriously upset him/her.

How concerned/anxious would you be over whether or not your friend would want to talk to you?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned

very concerned

I expect that he/she would want to talk with me to try and work things out.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely

very likely

9. You ask someone in one of your classes to have coffee.

How concerned/anxious would you be over whether or not the person would want to go?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned

very concerned

I expect that the person would want to go with me.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely

very likely

10. After graduation, you can't find a job and ask your parents if you can live at home for awhile.

How concerned/anxious would you be over whether or not your parents would want you to come home?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned

very concerned

I expect that I would be welcome at home.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely

very likely

11. You ask your friend to go on a vacation with you over Spring Break.

How concerned/anxious would you be over whether or not your friend would want to go with you?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that he/she would want to go with me.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

12. You call your boyfriend/girlfriend after a bitter argument and tell him/her you want to see him/her.

How concerned/anxious would you be over whether or not your boyfriend/girlfriend would want to see you?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that he/she would want to see me.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

13. You ask a friend if you can borrow something of his/hers.

How concerned/anxious would you be over whether or not your friend would want to loan it to you?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that he/she would willingly loan it to me.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

14. You ask your parents to come to an occasion that is important to you.

How concerned/anxious would you be over whether or not your parents would want to come?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that my parents would want to come.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

15. You ask your friend to do you a big favor.

How concerned/anxious would you be over whether or not your friend would do you this favor?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that he/she would willingly do this favor for me.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

16. You ask your boyfriend/girlfriend if he/she really loves you.

How concerned/anxious would you be over whether or not your boyfriend/girlfriend would say yes?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that he/she would answer yes sincerely.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

17. You go to a party and notice someone on the other side of the room and then you ask them to dance.

How concerned/anxious would you be over whether or not the person would want to dance with you?

(1) - (2) - (3) - (4) - (5) - (6)  
very unconcerned very concerned

I expect that he/she would want to dance with me.

(1) - (2) - (3) - (4) - (5) - (6)  
very unlikely very likely

18. You ask your boyfriend/girlfriend to come home to meet your parents.

How concerned/anxious would you be over whether or not your boyfriend/girlfriend would want to meet your parents?

(1) - (2) - (3) - (4) - (5) - (6)

very unconcerned

very concerned

I expect that he/she would want to meet my parents.

(1) - (2) - (3) - (4) - (5) - (6)

very unlikely

very likely

## Appendix I

### THE ALCOHOL USE DISORDERS IDENTIFICATION TEST

Alcohol use can affect your health and can interfere with certain medications and treatments, so it is important that we ask some questions about your use of alcohol. Your answers will remain confidential so please be honest with your answers. Choose the answer that best describes you.

1. How often do you have a drink containing alcohol?

Never | Monthly or less | 2-4 times a month | 2-3 times a week | 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

1 or 2 | 3 or 4 | 5 or 6 | 7 to 9 | 10 or more

3. How often do you have six or more drinks on one occasion?

Never | Less than monthly | Monthly | Weekly | Daily or almost daily

4. How often during the last year have you found that you were not able to stop drinking once you had started?

Never | Less than monthly | Monthly | Weekly | Daily or almost daily

5. How often during the last year have you failed to do what was normally expected of you because of drinking?

Never | Less than monthly | Monthly | Weekly | Daily or almost daily

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

Never | Less than monthly | Monthly | Weekly | Daily or almost daily

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

Never | Less than monthly | Monthly | Weekly | Daily or almost daily

8. How often during the last year have you been unable to remember what happened the night before because of your drinking?

Never | Less than monthly | Monthly | Weekly | Daily or almost daily

9. Have you or someone else been injured because of your drinking?

Never (0) | Yes, but not in the past year (2) | Yes, during the last year (4)



10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?

Never (0) | Yes, but not in the past year (2) | Yes, during the last year (4)

## Appendix J

### THE BRIEF YOUNG ADULT ALCOHOL CONSEQUENCES QUESTIONNAIRE

Below is a list of things that sometimes happen to people either during, or after they have been drinking alcohol. Next to each item below, please mark either YES or NO to indicate whether that item describes something that has happened to you **IN THE PAST MONTH.**

1. While drinking, I have said or done embarrassing things. **Yes | No**
2. I have had a hangover (headache, sick stomach) the morning after I have been drinking. **Yes | No**
3. I have felt very sick to my stomach or thrown up after drinking. **Yes | No**
4. I have often ended up drinking on nights when I had planned not to drink. **Yes | No**
5. I have taken foolish risks when I have been drinking. **Yes | No**
6. I have passed out from drinking. **Yes | No**
7. I have found that I needed larger amounts of alcohol to feel any effect, or that I could no longer get high or drunk on the amount that used to get me high or drunk. **Yes | No**
8. When drinking, I have done impulsive things that I have regretted later. **Yes | No**
9. I've not been able to remember long stretches of time while drinking heavily. **Yes | No**
10. I have driven a car when I knew I had too much to drink to drive safely. **Yes | No**
11. I have not gone to work or missed classes at school because of drinking, a hangover, or an illness caused by drinking. **Yes | No**
12. My drinking has gotten me into sexual situations I later regretted. **Yes | No**
13. I have often found it difficult to limit how much I drink. **Yes | No**
14. I have become very rude, obnoxious, or insulting after drinking. **Yes | No**
15. I have woken up in an unexpected place after heavy drinking. **Yes | No**
16. I have felt badly about myself because of my drinking. **Yes | No**
17. I have had less energy or felt tired because of my drinking. **Yes | No**
18. The quality of my work or my schoolwork has suffered because of my drinking. **Yes | No**
19. I have spent too much time drinking. **Yes | No**

20. I have neglected obligations to my family, work, or school because of drinking. **Yes | No**

21. My drinking has created problems between myself and my partner/spouse, parents, or other near relatives. **Yes | No**

22. I have been overweight because of drinking. **Yes | No**

23. My physical appearance has been harmed by my drinking. **Yes | No**

24. I have felt like I've needed a drink after I'd gotten up (that is, before breakfast). **Yes | No**

## VITA

### Denise M. Calhoun

ODU Department of Psychology  
250 Mills Godwin Life Sciences Bldg.  
Norfolk, VA 23529

Primary Phone: (262) 408-7426  
dmcalhoun327@gmail.com

### EDUCATION

#### 2013 - present

#### **Virginia Consortium Program in Clinical Psychology Norfolk, VA**

Ph.D., expected August 2018  
University-based, APA accredited program, jointly sponsored by:  
Eastern Virginia Medical School, Old Dominion University, and  
Norfolk State University

#### 2013

#### **University of Wisconsin-Stevens Point Stevens Point, WI**

B.S., Psychology, Concentration in Human Services, *summa cum  
laude*

### PRESENTATIONS

**Calhoun, D.M.** (2016, September). *Sexual Minority Stress, Intimate Partner Violence, and Alcohol Use among Racially and Ethnically Diverse Lesbian Women*. Presented at the annual Virginia Consortium Program in Clinical Psychology Research Day, Norfolk, VA.

**Calhoun, D.M.**, Lewis, R.J., & Braitman, A.L. (2016, May). *Racial/Ethnic Differences in Lesbian Women's IPV, Hazardous Alcohol Use, Parental Violence, and Sexual Minority Stress*. Poster presented at the 28<sup>th</sup> annual Association for Psychological Science convention, Chicago, IL.

**Calhoun, D.M.**, Mason, T., & Lewis, R.J. (2014, August). *Sexual Minority Stress and Alcohol Use: Drinking to Cope as a Response to Stress*. Poster presented at the 122<sup>nd</sup> annual meeting of the American Psychological Association, Washington DC.

### PUBLICATIONS

Winstead, B. A., Lewis, R. J., Kelley, M. L. Mason, T. B., **Calhoun, D. M.**, & Fitzgerald, H. N. (2017). Intervention for violence and aggression in gay and lesbian relationships. In P. Sturme (Ed.), *The Wiley handbook of violence and aggression*.