8-2018

Perceived Belongingness, Self-Esteem, and Outness Level on Psychological Distress Among Lesbian, Gay, and Bisexual Individuals

Rachel Mary Haug

Follow this and additional works at: https://digscholarship.unco.edu/dissertations

Recommended Citation
https://digscholarship.unco.edu/dissertations/490
PERCEIVED BELONGINGNESS, SELF-ESTEEM, AND OUTNESS LEVEL ON PSYCHOLOGICAL DISTRESS AMONG LESBIAN, GAY, AND BISEXUAL INDIVIDUALS

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

Rachel Mary Haug

College of Education and Behavioral Sciences
Department of Applied Psychology and Counselor Education
Program of Counseling Psychology

August 2018
This Dissertation by: Rachel Mary Haug

Entitled: *Perceived Belongingness, Self-Esteem, and Outness Level on Psychological Distress Among Lesbian, Gay, and Bisexual Individuals*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in College of Education and Behavioral Sciences in School of Applied Psychology and Counselor Education, Program of Counseling Psychology.

Accepted by the Doctoral Committee

______________________________________________
Basilia Softas-Nall, Ph.D., Research Advisor

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

______________________________________________
Vilma (Betty) Cardona, Ph.D., Committee Member

______________________________________________
Susan R. Hutchinson, Ph.D., Faculty Representative

Date of Dissertation Defense _______________________________

Accepted by the Graduate School

_____________________________________________________
Linda L. Black, Ed.D.
Associate Provost and Dean
Graduate School and International Admissions
ABSTRACT


Perceived belongingness has demonstrated significant positive effects on psychological distress levels. Various other demographic and psychological constructs including sexual orientation, ethnicity, socioeconomic status (SES), self-esteem, and outness level also have been found in past literature to have significant relationships with psychological distress levels. Because sexual minority individuals are at increased risk for psychological distress, the purpose of this study was to assess the role belongingness played in psychological distress among lesbian, gay, and bisexual (LGB) university students after already accounting for these other variables through a hierarchical regression analysis. Due to the nature of hierarchical regression analysis, the effects of all variables on psychological distress (i.e., sexual orientation, ethnicity, SES, self-esteem, and outness level) were also analyzed independently. Additionally, a moderating effect of sexual orientation on the relationship between perceived belongingness and psychological distress was assessed. Results from 132 LGB students showed that the combined effect of sexual orientation, ethnicity, and SES (entered at Step 1 of the hierarchical regression analysis) on psychological distress was non-significant ($R^2 = .038$, $p = .285$). Outness level and self-esteem were entered at Step 2 of the regression analysis and explained a significant additional portion of the variance in psychological distress levels ($\Delta R^2 = .392$, $p < .001$) mainly due to the effect of self-esteem because outness level
was found to be a non-significant construct. Perceived belongingness accounted for an additional significant portion of psychological distress variance when entered at Step 3 ($\Delta R^2 = .052, p = .001$). With all of the variables in the model, 48.8% of psychological distress variance was accounted for among the sample. Sexual orientation did not moderate the relationship between perceived belongingness and psychological distress. Self-esteem and perceived belongingness are important protective factors against psychological distress among sexual minority students, so more research refining our understanding of how these constructs combat psychological distress is merited.

Specifically, research implications are discussed suggesting how future research can expand upon the current findings to better understand the results. Clinical implications are discussed emphasizing the importance of self-esteem and perceived belongingness as a way to combat psychological distress among LGB university students. These implications include some ideas that counseling psychologists can use to strengthen these constructs for clients. Theoretical implications are also discussed showcasing how the research findings fit into Meyer’s Minority Stress Theory, the theoretical framework used to guide the current research.
ACKNOWLEDGEMENTS

The completion of this dissertation would have not been possible without the incredible support and knowledge of my committee members: Drs. Softas-Nall, Rings, Cardona, and Hutchinson. Every single one of you offered guidance, perspective, input, assistance, and encouragement in various ways throughout this process, which directly aided in both the execution of the study and the documentation of it.

It is truly hard to put into words the appreciation I have for you, Dr. Softas-Nall, as you have been my sounding board from the very beginning when I didn’t have a clue about what I wanted to research for my dissertation. You helped me focus back then, and you have continued to keep me grounded and focused throughout this process, reminding me of my final goal. Your words of understanding and encouragement also tended to come at moments when I needed them most, normalizing the struggles of idea formulation, study execution, and research documentation. Your uncanny ability to know exactly how much “pushing” I needed to keep progressing with this project was pivotal, and I can guarantee I would not have finished this without you. Thank you from the bottom of my heart.

I have grown to not only be grateful for, but also desire, the thorough feedback you always seem to give, Dr. Rings. You have directly helped shape my overall research appreciation through the years, and I can see how your influence in scientific-mindedness and attention to detail have had, and will continue to have, a positive impact on my professional career. Thank you for challenging me to hold my research projects and
writing to a high standard, believing in my abilities (with unfailing enthusiasm) even when I didn’t. Your support, understanding, and motivation have been critical to the completion of this project, and I will be forever grateful.

Thank you for your encouragement in completing a study with sexual minority participants, Dr. Cardona, as well as the contributions you offered through discussion on sexual orientation development and attachment theory. The perspectives and input you shared were incredibly complementary to this project, and the support you demonstrated for me and my study throughout the process was very meaningful.

The patience you demonstrated with me as I proposed and conducted my statistics was extraordinary, Dr. Hutchinson. I consider myself extremely lucky to have been under your mentorship during this entire dissertation process, as you made the execution of the research project more straightforward and even enjoyable. I’m grateful for your willingness to serve as my faculty member since your perspective and assistance as a statistician were remarkably valuable.

Last, but certainly not least, thank you to my family, partner, classmates, and friends who have supported me in their own ways throughout this process. Thank you for your endless encouragement in the completion of this project (even if you didn’t necessarily understand all of the details) and thank you for never letting me lose sight of the person behind the research.
# TABLE OF CONTENTS

## CHAPTER

<table>
<thead>
<tr>
<th>I.</th>
<th>INTRODUCTION………………………………………………………. 1</th>
</tr>
</thead>
</table>
| | Introduction  
| | Statement of the Problem  
| | Theoretical Framework  
| | Rationale for the Study  
| | Purpose  
| | Research Questions  
| | Limitations/Delimitations  
| | Definition of Terms  
| | Summary |
| II. | REVIEW OF LITERATURE……………………………………… 15 |
| | Introduction  
| | Minority Stress Theory  
| | Review of Literature  
| | Summary |
| III. | METHODOLOGY………………………………………………….. 75 |
| | Introduction  
| | Research Design and Overview of Methods  
| | Procedure  
| | Data Analysis and Hypotheses  
| | Summary |
| IV. | RESULTS………………………………………………………… 95 |
| | Introduction  
| | Descriptive Statistics and Preliminary Analysis  
| | Assumptions  
| | Hierarchical Regression Analysis  
| | Research Question One  
| | Research Question Two  
| | Research Question Three |
Research Question Four
Summary

V. DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH ................................................................. 105

Introduction
Discussion of Results
Summary of Results
Implications
Limitations and Recommendations for Future Study
Conclusion

REFERENCES ........................................................................................................... 139

APPENDIX

A. Participants’ Reported State of Residence ................................. 175
B. Nebraska Outness Scale (NOS) ......................................................... 177
C. Rosenberg Self-Esteem Scale (RSES) .............................................. 180
D. General Belongingness Scale (GBS) ................................................. 182
E. Hopkins Symptom Checklist – 21 (HSCL-21) .......................... 184
F. Demographic Questionnaire .......................................................... 186
G. University of Northern Colorado Institutional Review Board Approval ................................................................. 188
H. Recruitment Email for Listservs ...................................................... 190
I. Recruitment Email for Resource Center Directors ..................... 192
J. Contacted Colleges and Universities for Recruitment .......... 194
K. Informed Consent ............................................................................. 196
L. Eligibility Screening Questions ...................................................... 199
M. Thank You Page: Ineligible .......................................................... 201
N. Permission to use Nebraska Outness Scale (NOS) .............. 203
O. Permission to use General Belongingness Scale (GBS) ...... 205
P. Permission to use Hopkins Symptom Checklist – 21 (HSCL-21) ................................................................. 207
Q. Personal Communication re: Rosenberg Self-Esteem Scale (RSES) ................................................................. 210
R. PsycTESTS Permission to use Rosenberg Self-Esteem Scale (RSES) ................................................................. 212
S. Thank you page and Resources ...................................................... 214
LIST OF TABLES

Table

1. Summary of Demographic Variables.................................................. 79
2. Summary of the Nebraska Outness Scale, the Rosenberg Self-Esteem Scale, the General Belongingness Scale, and the Hopkins Symptom Checklist – 21................................................................. 96
3. Pearson correlations between the Hopkins Symptom Checklist – 21, Nebraska Outness Scale, Rosenberg Self-Esteem Scale, and the General Belongingness Scale................................................................. 97
4. Hierarchical Regression Results for Model Explaining Sexual Orientation, Ethnicity, Socioeconomic Status (SES), Outness Level, Self-Esteem, and General Belongingness ................................................. 100
5. Participants’ Reported State of Residence.............................................. 176
CHAPTER I
INTRODUCTION

Perceived belongingness refers to the notion of feeling valued among a group of other individuals, experiencing a congruence with them. An achieved sense of belonging is a relatively new phenomenon to the psychological literature, but the desire, or need, to belong is a well-known idea dating back to Durkheim in 1897.

Psychological distress is one of the main concerns of counseling psychologists, especially those in a clinical setting. Psychological distress can be defined and measured in a variety of ways ranging from psychological disorders meeting specific diagnostic criteria to a general unhappiness with life. In the most general sense, research has discussed psychological distress as a wide-ranging, maladaptive functioning that can be related to a plethora of other variables regarding human functioning. One of the newer relationships discussed in the psychological literature as of the past 20 years includes the association between psychological distress and perceived belongingness (Baumeister & Leary, 1995; Holt-Lunstad et al., 2017).

One’s need to belong, and now more recently, a perceived sense of belonging, has been consistently linked to psychological health or distress depending on the presence or absence of it (Baumeister & Leary, 1995; Holt-Lunstad et al., 2017). For example, when one does not feel a sense of belonging, depression and anxiety are more likely to be experienced (Hoyle & Crawford, 1994) and suicidal ideation is more likely to be present (Bailey & McLaren, 2005) among individuals. On the contrary, when individuals feel
that they belong, they are likely to have higher overall happiness and subjective well-being (Baumeister, 1991; Pietromonaco & Collins, 2017). It seems that one’s sense of belonging has a strong tie to one’s psychological distress. In order to give accurate credit to belongingness, it is important that other variables that have also been found to have an effect on psychological distress be measured and controlled for. Ethnicity and socioeconomic status (SES) have both demonstrated throughout the literature to have had a differential effect on psychological distress. For example, higher levels of psychological distress have been repeatedly associated with identifying as an ethnic minority (i.e., Cokley et al., 2017; Gonzalez, Tarraf, Whitfield, & Vega, 2010; James, Hart, Banay, Laden, & Signorello, 2017; Young, Fang, & Zisook, 2010) and holding a lower SES (i.e., Hasin, Goodwin, Stinson, & Grant, 2005; James et al., 2017; Jury et al., 2017; Myer, Stein, Grimsrud, Seedat, & Williams, 2008). Given the repeated findings of psychological distress levels differing in regards to one’s ethnicity and SES, it is imperative that research studies assessing psychological distress take these variables into consideration.

Further, self-esteem has been found to be associated with psychological distress. Self-esteem in a very general sense can be thought of as a global, subjective appraisal of one’s self-worth. There are numerous theories about the function of self-esteem, but its exact function remains unknown (Leary & Baumeister, 2000). It has been shown to be related to cognitive functions (Greenwald, 1980), emotional patterns (Leary & Baumeister, 2000) and social interactions (Jones & Berglas, 1978; Wills, 1981). Moreover, scholars have found support for a theory highlighting how low self-esteem may operate as a risk factor for psychological distress (Douglass, Conlin, Duffy, & Allan,
The idea is that individuals with lower self-esteem also have fewer coping mechanisms or resources, so they are more likely to experience distress. It seems that there is contradicting evidence regarding the causal role between psychological distress and self-esteem (Orth et al., 2008; Roberts & Monroe, 1994), but it appears that that the two constructs are strongly linked in some regard.

The connections found among belongingness, ethnicity, SES, self-esteem, and psychological distress are plentiful in the general population. With research estimating that there are over nine million Americans identifying as lesbian, gay, or bisexual (Gates, 2011), it is important to research psychological distress among this population specifically as results are likely to be different from a general sample not taking sexual orientation into account. Every person has a sexual orientation, thought of as one’s sexual attractions, actions, and/or relationships (Moradi, Mohr, Worthington, & Fassinger, 2009), yet society tends to be more accepting of heterosexual individuals historically (Cass, 1984).

Outness, conceptualized as the verbal or nonverbal disclosure of one’s sexual orientation, has a complex relationship with psychological distress. Generally speaking, some scholars have argued that the more “out” one is, the better their mental health, while others have found it is sometimes best to conceal one’s sexual orientation to avoid stigma (Legate, Ryan, & Weinstein, 2012; Riggle, Rostosky, Black, & Rosenkrantz, 2017; Williams, Mann, & Fredrick, 2017). The benefit of avoiding stigma and any potentially accompanying negative attitudes or behaviors, comes at a cost of concealing
one’s sexual orientation, and this has been shown to increase cognitive burden, emotional strain, and higher stress (Legate et al., 2012; Meyer, 2007).

The relationship between psychological distress and sexual orientation outness becomes even more complex if one identifies as bisexual. Bisexual-identified individuals have demonstrated even lower psychological functioning than their gay and lesbian peers (Burke et al., 2017; Eliason, 2001). Researchers have come up with theories in an attempt to highlight the cause of this psychological distress discrepancy between lesbian/gay individuals and bisexual individuals including a lack of disclosure (Herek, 2009), identity confusion (Lewis, Derlega, Brown, Rose, & Henson, 2009), and feelings of exclusion (Bostwick & Hequembourg, 2014) due to a variety of societal pressures.

Given all of the above information, psychological distress seems to have an important relationship with belongingness, sexual orientation, ethnicity, SES, self-esteem, and outness level independently. On the contrary, there appears to be a lack of research to date that assesses all of these variables simultaneously, let alone testing these variables within a sexual minority sample. Further, there seem to be even fewer studies assessing the role of belongingness on psychological distress after already controlling for these other variables.

Therefore, the current study ultimately set out to investigate the role that belongingness may play in psychological distress among lesbian, gay, and bisexual individuals after accounting for sexual orientation, ethnicity, SES, self-esteem, and outness level.
Statement of the Problem

It is an unfortunate reality that those who identify as a sexual minority have poorer mental health functioning than those who identify as heterosexual (Bostwick, Boyd, Hughes, West, & McCabe, 2014; Williams & Mann, 2017). “Sexual stigma” has been coined by Herek, Gillis, and Cogan (2009) to refer to a broad range of negative events that accompany individuals when they do not identify as heterosexual, including an inferior societal status. Discrimination, harassment, verbal and physical abuse, and overall insensitivity have all been linked to increased psychological distress among sexual minority individuals portrayed through increases in depression, anxiety, substance use, and suicidal ideation to name a few (D’Augelli, Grossman, & Starks, 2006; Gonsiorek, 1993; Huebner, Rebchook, & Kegeles, 2004; Meyer, 2007; Olson & King, 1995).

At the same time, a strong sense of belongingness has been linked to positive mental health outcomes in the literature (Baumeister & Leary, 1995; Holt-Lunstad et al., 2017), but more research is necessary to address how belongingness relates to psychological distress in sexual minority individuals, specifically. Therefore, attempts to better understand the increased psychological distress levels among sexual minority individuals, along with attempts in identifying a protective factor to fight against the distress, are incredibly warranted.

Theoretical Framework

Minority Stress Theory (Meyer, 2003) refers to a conceptual framework describing a variety of stressors that sexual minority individuals face in addition to general life stressors due to their social position in society. These additional stressors,
generally found in the form of stigma, prejudice, and discrimination due to their sexual orientation, are thought to be the causes of higher psychological distress among sexual minority individuals. Three underlying assumptions of the Minority Stress Theory include the belief that minority stress is (a) unique, (b) chronic, and (c) socially-based (Meyer, 2003, 2007). This is all to say that minority stress (a) is above and beyond stress found in everyone, and (b) is continuously experienced. In addition, minority stress (c) is experienced due to a stigmatizing societal set up as opposed to innate factors within the individual.

Importantly, the accompanying Minority Stress Model not only discusses stressors but also takes into consideration one’s social support and resiliency factors when discussing the health outcomes among sexual minority individuals (Meyer & Frost, 2013). Therefore, Meyer and Frost (2013) proposed that a sexual minority’s experienced psychological distress is the net result of both negative and positive factors. Psychological distress and its associated symptoms depend on the combination of all facets.

**Rationale for the Study**

Investigating the large mental health disparities between heterosexual and non-heterosexual individuals is a social justice concern, especially in the counseling psychology field. Social justice can be conceptualized as the promotion of human development and common good through addressing challenges related to both individuals and the distribution of justice. This is one of the major tenets of counseling psychology. Counseling psychologists operating within a socially-just framework practice and advocate for the fair distribution of resources and rights to all people regardless of
various identities (e.g., sexual orientation), ideally empowering individuals or groups experiencing prejudice and confronting societal inequality. Clearly, when individuals are being discriminated against, harassed, and rejected, and therefore potentially experiencing greater psychological distress than the average person simply due to their sexual orientation, those individuals are not experiencing justice. In other words, sexual minorities to date are not being offered a fair distribution of human rights, including the right to simply exist because of their sexual orientation. Instead, sexual minority individuals seem to experience increases in psychological distress at least partly due to the simple notion that they identify as non-heterosexual. Better understanding of the multiple factors at play in the psychological distress discrepancy between heterosexual and non-heterosexual individuals, along with attempting to identify potential protective factors, is needed in order to move toward bringing greater justice to the sexual minority population. Given the importance of social justice for counseling psychologists, and how social justice relates to the current study, it is crucial to mention the specific implications that the current study holds for both research and counseling practice.

Various studies have attempted to explain the discrepancy in psychological distress levels between heterosexual and non-heterosexual individuals. There seems to be a gap in the literature measuring multiple facets of experience simultaneously in an attempt to explain psychological distress levels. The current study is intended to add to this literature base because multiple variables such as sexual orientation, ethnicity, SES, self-esteem and outness level, and their specific relationship with psychological distress were assessed simultaneously. Moreover, research has shown that belongingness plays an important role in one’s emotional, behavioral, and overall subjective well-being
(Baumeister, 1991; Baumeister & Leary, 1995; Bourhis, Montreuil, Barrette, & Montaruli, 2009; Campos & Kim, 2017). Little research has assessed this construct as a possible protective factor against psychological distress, let alone in the lesbian, gay, and bisexual communities. The current study’s ultimate purpose addressed this gap specifically, again adding to the research literature for both belongingness and psychological distress among a sexual minority population.

The results of this study are also beneficial in a practical sense given that they aid in the therapeutic prevention and intervention efforts of psychologists. For example, a better understanding of the underpinnings of psychological distress, along with newfound information on the role of belongingness, among sexual minority individuals help guide appropriate and effective psychological treatment. Additionally, advocates promoting social justice for sexual minorities may also benefit from this research in that they may be able to move forward in a specific, educated fashion in an attempt to mitigate psychological distress for lesbian, gay, and bisexual individuals. With research backing the importance of belongingness, there comes the potential for advancements in community gatherings and support, general or specific, from those with similar backgrounds to decrease psychological distress among sexual minority individuals. It is through this advocacy for mental health initiatives among non-heterosexual individuals where social justice truly lies.

Importantly, the knowledge obtained from this research adds to an ever-growing body of literature working to overcome the heterosexual-homosexual binary classification system simply by including bisexual individuals in the research project. It is becoming better understood that bisexual individuals may have unique experiences
related to their sexual orientation, qualitatively different than those experienced by
lesbian women and gay men (Balsam & Mohr, 2007; Bostwick et al., 2014). Increasing
scholarship contributions including bisexual-identified individuals as part of the sample
aids in gaining cultural competence and a better understanding of a bisexual-specific
experience among scholars and practitioners alike. It also allows for deliberate and
thoughtful visibility of the bisexual community.

**Purpose**

Given the prevalent differences in psychological functioning among non-
heterosexual and heterosexual individuals, further investigation into sexual minority
psychological distress is warranted. Also, because one’s perceived sense of belonging has
been linked to a variety of psychological health and distress aspects, it is clearly a
worthwhile construct to research further, so as to better understand the role it can play
when paired with other variables which also have been linked to psychological distress.
This research is especially needed as it pertains to sexual minority individuals. Therefore,
the ultimate purpose of the study was to assess the role belongingness played in
psychological distress among lesbian, gay, and bisexual individuals after already
accounting for sexual orientation, ethnicity, SES, self-esteem, and outness level through a
hierarchical regression analysis. A potential moderating effect of sexual orientation on
the relationship between belongingness and psychological distress was also assessed.
Moreover, due to the nature of a hierarchical regression, the relationship that all of these
variables (sexual orientation, ethnicity, SES, self-esteem, and outness level) have with
psychological distress among sexual minority individuals was also assessed through the
different stages of the analysis as outlined through the order of the research questions.
Research Questions

Q1 Do sexual orientation, ethnicity, and SES explain psychological distress among lesbian, gay, and bisexual individuals?

Q2 Do outness level and self-esteem explain psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation, ethnicity, and SES?

Q3 Does perceived belongingness help to explain psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation, ethnicity, SES, outness level, and self-esteem?

Q4 Is the relationship between perceived belongingness and psychological distress moderated by sexual orientation among lesbian, gay, and bisexual individuals?

Limitations/Delimitations

The current study was a nonexperimental, survey research design (Remler & Van Ryzin, 2011). Given this, there are a variety of limitations that need to be discussed. First, it is important to highlight that the findings of the current study have limited generalizability due to the recruitment strategies employed. More specifically, to obtain a truly random sample of lesbian, gay, and bisexual individuals among the entire population would be extremely challenging, so instead participants were found through email listservs and college/university sexual minority support organizations (see Chapter III for more detail); it is likely that those connected with such services, and therefore exposed to this research opportunity, differ from the overall sexual minority population. Results of the study should be interpreted with this in mind. Second, the self-report nature of the survey may have affected the validity of scores obtained from the survey because individuals may have (a) misunderstood survey items, (b) have poor introspection on their overall personal experience, or (c) answered the survey in hopes of appearing different than they are, especially regarding sensitive information (Groves et al., 2009;
Remler & Van Ryzin, 2011). Third, survey research has a high dropout rate. In other words, it is commonplace for participants to start the survey, but then fail to complete it. Survey completion was encouraged by the chance to win one of four $25 Darden restaurants (e.g., Red Lobster, Olive Garden) gift cards.

In addition to the limits in the study methodology, it is important to note that the Minority Stress Theory (Meyer, 2003) does not take intersecting identities (e.g., racial minority and sexual minority) into account when assessing the connection between stressors and psychological distress among sexual minorities. Intersecting identities were not the focus of the current study, but it is important to remember this drawback of the Minority Stress Theory when interpreting results, especially those found from individuals holding multiple minority statuses.

**Definition of Terms**

**Cisgender.** Merriam-Webster, Inc. (2017) defines cisgender as “of, relating to, or being a person whose gender identity corresponds with the sex the person had or was identified as having at birth.”

**Outness level.** Outness level is the term that was used to describe individuals’ openness about their sexual orientation. In this study, it was measured by the Nebraska Outness Scale (NOS; Meidlinger & Hope, 2014). There is the possibility that one’s nonverbal cues might reveal aspects of one’s sexual orientation (Mohr & Fassinger, 2000); therefore, outness level in the current study refers to both one’s verbal and nonverbal disclosure of their sexual orientation to others.

**Perceived belongingness.** Perceived belongingness can be defined as “the experience of personal involvement in a system or environment so that persons feel
themselves to be an integral part of that system or environment” (Hagerty, Lynch-Sauer, Patusky, Bouwsema, & Collier, 1992, p. 173). Other synonymous terms used throughout the study include “sense of belonging” and simply “belongingness.” In the current study, the General Belongingness Scale (GBS; Malone, Pillow, & Osman, 2012) was used to assess participants’ general perceived belongingness, or their overall sense of belonging.

**Psychological distress.** Psychological distress was defined as the general concept of maladaptive functioning resulting from stressful life events negatively impacting one’s emotional or physical operations and activities of daily living (Abeloff, Armitage, Lichter, & Niederhuber, 2000). In the current study, the Hopkins Symptom Checklist- 21 (HSCL-21; Green, Walkey, McCormick, & Taylor, 1988) was used to assess participants’ overall, subjective psychological distress.

**Self-esteem.** The broad definition of self-esteem is the subjective appraisal of one’s value or worth as a person (Marcussen, 2006). In the current study, participants’ global assessment of their personal worth was measured by the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965).

**Sexual minority.** A sexual minority is defined in the current study as any individual who identifies as non-heterosexual. Anytime that the term “sexual minority” is used, a broad range of individuals may be discussed, but if a specific label is stated (e.g., lesbian), then a specific population is being discussed in the study.

**Sexual orientation or sexual identity.** One’s sexual orientation is not necessarily the same as one’s sexual identity (Moradi et al., 2009), but these terms were used interchangeably for the purposes of the current study. Therefore, one’s sexual orientation or identity were the terms that were used to classify one’s emotional, romantic and/or
sexual attractions, actions, and/or relationships. The term “gay” (G) was used to classify a self-identified man who demonstrates any of the above social patterns for another man; the term “lesbian” (L) was used to classify a self-identified woman who demonstrates any of the above social patterns for another woman; the term “bisexual” (B) was used to classify a self-identified man or woman demonstrating any of the above social patterns for both men and women. It is fairly common for women demonstrating any of the above social patterns for other women to personally identify as gay as opposed to lesbian, but these individuals were classified as lesbian for the sake of data analysis in the current study. Moreover, it is extremely important to note that there are plenty of other sexual identities one can claim (e.g., dyke, pansexual, queer, questioning). In the current study, gay (G), lesbian (L), and bisexual (B) were the identities of focus.

**Summary**

The above introduction has discussed some important relationships found in the psychological literature. Specifically, psychological distress and its relationship with belongingness, sexual orientation, ethnicity, SES, self-esteem, and outness level of lesbian, gay, and bisexual individuals was highlighted. Moreover, the introduction pointed out noticeable differences in psychological distress levels depending on one’s sexual orientation. The Minority Stress Theory provides an optimal framework for guiding the current research since the theory discusses unique societal stressors that sexual minority individuals generally face negatively impacting their psychological health. It was presented why it is of utmost importance for the counseling psychology field to assess how all of these variables are related to each other, especially within a sexual minority population. Therefore, the goal of the current study was to assess the role
belongingness played in psychological distress among lesbian, gay, and bisexual individuals after already accounting for sexual orientation, ethnicity, SES, self-esteem and outness level through a hierarchical regression analysis. The relationships each variable has with psychological distress was also assessed, in addition to a possible moderating effect of sexual orientation on the relationship between belongingness and psychological distress.

Foreseen limitations of the study were also discussed primarily including limitations of the generalizability of the results. Operational definitions have been provided in this introduction, along with the respective measures chosen to assess each variable in the study.
CHAPTER II

REVIEW OF LITERATURE

Psychological distress, broadly thought of as the inability to function as one normally would, seems to have an increased prevalence and severity among those individuals identifying as lesbian, gay, and bisexual when compared to their heterosexual counterparts (Bostwick et al., 2014; Fenichel, 2017; Tomedi & Padilla, 2013; Williams & Mann, 2017). There have been various research studies attempting to note the reason behind this discrepancy, but only a limited number of studies have concurrently assessed multiple variables and their role in psychological distress. Moreover, research documents a strong tie between one’s perceived belongingness and their psychological distress levels (Bourhis et al., 2009; Choenarom, Williams, & Hagerty, 2005; Holt-Lunstad et al., 2017), but the unique role of belongingness after already looking at other known influences on psychological distress (e.g., sexual orientation, self-esteem) is missing from the literature, especially when it comes to sexual minority individuals. Therefore, the purpose of the current research was to investigate the role belongingness played in psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation, ethnicity, socioeconomic status (SES), self-esteem, and outness level. The individual relationships between each variable and psychological distress was also assessed, in addition to a potential moderating effect of sexual orientation on the relationship between belongingness and psychological distress.
The study is being conducted from a social justice perspective. Specifically, the study’s sample was sexual minority individuals who, generally speaking, tend to experience repeated discrimination and harassment from the society-at-large simply due to their non-heterosexual sexual orientation (Bostwick et al., 2014; Fenichel, 2017; Tomedi & Padilla, 2013; Williams & Mann, 2017). The study’s findings may encourage a better understanding of sexual minority psychological distress and possible protective factors. An increase in knowledge from ongoing research will ideally aid in the educated application of pertinent advocacy and therapeutic interventions. This, in turn, will directly and indirectly assist in improving mental health initiatives for the sexual minority population promoting the just distribution of human rights.

In this chapter, a discussion of the current study’s guiding theory, Minority Stress Theory, is discussed first since it serves as the lens through which the results of the study were interpreted and presented. Next, the constructs assessed in this study, belongingness, psychological distress, sexual orientation, ethnicity, SES, self-esteem, and outness level, are reviewed independently, along with a review of the common, relevant scales related to each discussed construct. The following extensive review also highlights some of the prominent relationships each construct has to the others in the literature. Moreover, psychological distress experienced by heterosexual individuals is compared to psychological distress experienced by sexual minority individuals in the discussion below, along with a review of bisexual-specific psychological distress. All of this information hopefully aids in the understanding and appreciation of the current study.

**Minority Stress Theory**

Minority Stress Theory, a conceptual framework for understanding the excess mental health problems among lesbian, gay, and bisexual individuals due to stress
associated with stigmatized minority groups, is the guiding theoretical framework for the study (Meyer, 2003). The idea of minority stress as it pertains to sexual minorities was discussed in the literature prior to the development of the Minority Stress Theory (e.g., Brooks, 1981; Meyer, 1995), but Ilan Meyer (2003) formalized the concept. Meyer (2003) expanded upon Dohrenwend’s (1998, 2000) general stress theory discussing strengths and vulnerabilities in the environment and the individual specifically for the sexual minority persons. “Minority stress” as a concept was formed from a variety of social and psychological theoretical orientations (Meyer, 2003) and can be described as “being related to the juxtaposition of minority and dominant values and the resultant conflict with the social environment experienced by minority group members” (Meyer, 1995, p. 39). Relating this concept to sexual minorities specifically, minority stress is pertinent on a daily basis given the surrounding heteronormative society. Therefore, the Minority Stress Model ultimately suggests that sexual minority individuals generally have a higher prevalence rate of psychological distress due to an excess in experienced social stressors such as harassment, discrimination, stigma, prejudice, and victimization induced by a hostile, homophobic society (Meyer, 2003). This elevated level of social adversity and expectation of social rejection is believed to generate higher rates of mental health morbidity for lesbian, gay, and bisexual individuals (Cochran & Mays, 2013).

Included in the concept of minority stress, researchers have held three underlying assumptions. Specifically, minority stress is believed to be (a) unique – additive to general stressors that are experienced by all people, (b) chronic – regular exposure due to organized social and cultural structures in place, and (c) socially based – stemming from social processes outside of the individual (Meyer, 2003, 2007). Basically, these
assumptions say that minority stress is stress only found among those with minority identities and is continuously experienced since it comes from a stigmatizing environment because of our cultural set up and social expectations, not because the sexual minority individual is more prone to stress. Meyer (2003, 2007) discussed both distal (objective) events and proximal (personal) processes as stressors specific to sexual minorities as support for his theory. “Experienced prejudicial events” (e.g., marriage inequality) was the main distal stressor Meyer (2003, 2007) reviewed when discussing support for the Minority Stress Theory. Including “experienced prejudicial events” as a distal stressor is not to say that sexual minorities are not negatively impacted by these, but rather, these events are independent of one’s sexual minority identification. On the contrary, “expectations of rejection due to stigma,” “stress around sexual orientation concealment,” and “internalized homophobia” were the main stressors Meyer (2003, 2007) reviewed when discussing evidence for proximal stressors experienced by sexual minorities. Because these are more personal stressors by nature and, therefore, affect one’s self-identity to a greater extent, they tend to have a greater impact on psychological distress within the sexual minority individual. Of course, personal variations in the meaning of one’s sexual orientation identity are directly related to how one experiences psychological distress due to proximal stressors (Meyer, 2007). Meyer (2003, 2007) noted that proximal stressors may either exacerbate or mitigate the effects of stress. For instance, proximal stressors may have a greater influence on psychological distress among those individuals who have their sexual identity as their main identity, but a stronger sense of sexual minority identity may also be a source of strength (Meyer & Frost, 2013). In fact, Meyer (2003, 2007) also reviewed a positive construct called
“ameliorative coping processes” in support of his theory. Meyer noted that numerous studies on sexual minorities discussed the positive coping processes and resilience of those stigmatized. These are unique coping processes, including the connection to groups filled with similar others, that sexual minorities employ so as to combat the minority stress they encounter. All in all, the Minority Stress Model “articulates how the effect of stressors on health outcomes is the net result of negative (stress) and positive (ameliorative) factors” (Meyer & Frost, 2013, p. 254).

Meyer’s (2003) Minority Stress Theory continues to be the leading perspective used in research with sexual minorities, especially as it pertains to the negative effects of sexual minority discrimination. For example, Velez, Moradi, and DeBlaere’s (2015) research assessing the mental health of multiple oppressions on sexual minority Latina/o individuals was guided in part by the Minority Stress Theory. Additionally, Mohr and Sarno (2016) used the Minority Stress Theory as their conceptual framework for understanding identity-related stress and support processes for lesbian, gay, and bisexual individuals. Research assessing the added effects of multiple forms of discrimination due to various minority identities used the Minority Stress Theory framework as a guide to interpreting mental health findings (Bostwick et al., 2014). These are only three selected research studies among numerous others supporting the use of the Minority Stress Theory. Therefore, I proposed that it was the optimal theory to guide the current research since I was ultimately interested in learning more about the effects of sexual minority stressors in hopes of alleviating some of the corresponding psychological distress.
Review of the Literature

Belongingness

The positive aspects of sharing a community or environment with other creatures with whom you have common attributes is not a new phenomenon in the literature. The advantages of a shared community are supported from a very basic evolutionary perspective because one needs to be surrounded by similar organisms to procreate successfully, share resources, and defend one’s livelihood (Baumeister & Leary, 1995; Pietromonaco & Collins, 2017). As one evolves further, being surrounded by like-minded individuals allows for meaningful and advanced interactions, beyond those of basic and reproductive needs (Holt-Lunstad, et al., 2017), supporting in the development of culture. As social creatures by nature, humans tend to yearn for environments in which they feel important and valuable, or at the very least, have attributes in common with others. This craving for relatedness or belongingness is one of humans’ primary concerns. The desire to belong dates back to Freud (1930); he primarily viewed it as deriving from one’s sex drive. Thinking about belongingness in this way, it seems that this desire to belong is an innate human incentive. In fact, Maslow’s (1954) hierarchy of needs denotes belongingness as a human need, further expanding on its importance given its placement in the third tier, right after physiological and safety needs. According to Maslow, people seek to overcome feelings of loneliness and alienation by giving and receiving love and affection. Through the giving and receiving of love and affection, individuals ideally gain this overall sense that they belong. In understanding how Maslow’s hierarchy of needs operates, it is clear that belongingness also plays a critical role in leading a fulfilling life.
because this belonging need has to be met before any self-actualizing aspects of the hierarchy can be, such as creativity, spontaneity, and morality.

More recently, Baumeister and Leary (1995) highlighted that the need to belong is a powerful, fundamental, and extremely pervasive human motivation. Yalom and Leszcz (2005) agreed that the acceptance by others is of paramount importance and the need to belong is innate in us all. Researchers have clearly been captivated with how pervasive the desire to belong to someone or something is throughout time.

Baumeister and Leary’s (1995) extensive review of the literature suggests that people try to preserve relationships through a variety of means in an attempt to avoid ending them. Hazan and Shaver (1994) concluded that individuals tend to show distress near the end of a relationship and this notion is nearly universal across different cultures and ages. The avoidance of ending a relationship has even been found to be true for bad or destructive relationships (Baumeister & Leary, 1995). An individual’s desire to belong and reluctance to break social bonds seems to be deeply rooted even in unhealthy or possibly dangerous relationship settings.

Further, Bednarski and Leary (1994) found that one of the primary reasons people demonstrate a fear of death is because of their concerns with being separated from their loved ones. This concern regarding the loss of their relationship was found to outweigh concerns regarding the uncertainty of what happens after death (Bednarski & Leary, 1994). The connection between death anxiety and separation anxiety might explain why many after-death depictions emphasize a reunification with loved ones or a community of some kind; one’s fears of death may be soothed by a belief in the continuation of
belonging (Baumeister, 1991). Clearly, research supports the idea that it is important for an individual to have at least one particularly strong, close attachment (Ruehlman & Wolchik, 1988).

Though the need to belong to someone or something appears universal across all people, the quality of this relationship can vary. According to attachment theory (Bowlby, 1969), an individual’s history of interactions with their closest partners (“attachment figures”) shapes their ability to regulate emotions and behavior, to solicit and benefit from social support, to give care to others, and to capitalize on opportunities for personal growth and meaning through their social relationships (Feeney & Collins, 2015). Therefore, individuals differ in their expectations about others’ responsiveness and availability, which is reflected in their attachment style. Three common attachment styles exist (secure, anxious, and avoidant) and each style has the potential to affect the character of any relationship a person experiences. Consequently, depending on one’s attachment style, the need to belong can differ in frequency, intensity, and quality (Pietromonaco & Collins, 2017).

One’s desire to belong has been found in research throughout the decades, but it is important to realize that the idea of perceived belongingness, defined as the “experience of personal involvement in a system or environment so that person feel themselves to be an integral part of that system or environment” (Hagerty et al., 1992, p.173), is much newer to the psychological literature and is qualitatively different from the desire to belong (Malone et al., 2012). The idea of perceived belongingness is quite abstract and needs to be better understood. For starters, a system can be a relationship of some kind or an organizational support, and an environment can be thought of as something either
natural or cultural (Hagerty et al., 1992). For individuals to fulfill their need to belong, Baumeister and Leary (1995) created a belongingness hypothesis composed of two aspects. First, they argued that one must have frequent, affectively pleasant interactions with other people, and second, these interactions must be a recurring theme over time. The importance of both aspects to successfully develop a sense of belonging appears theoretically plausible. For instance, if one has affectively pleasant encounters but these encounters are short-lived, there is little to no development of the relationship, leaving a gap in one’s feelings of belonging. Similarly, if one has recurrent interactions but they are not pleasant, it would be challenging to develop a sense of belonging to specific individuals or groups of people. In these moments, the lack of an affectively-based bond can make the interaction seem behavioral in nature (Baumeister & Leary, 1995).

Additionally, Walker and Avant (1988) discussed two specific characteristics to better understand a sense of belonging. Specifically, they noted (a) people experience feeling valued, needed, or important with respect to their system or environment, or (b) they experience a fit, or congruence, with their system or environment. Again, this appears to make theoretical sense because without one of the above mentioned characteristics, it would be difficult to feel that one is a worthwhile aspect of their surrounding system or environment, or that they have anything in common with their surrounding system or environment.

Lakey and Cassady (1990) provided data to support the idea that one’s perceived sense of belonging operates similarly to a cognitive schema shaping how one interprets others’ actions. For instance, some people will have a predisposition to view others as unsupportive given their belief system regarding the quantity and quality of their
interpersonal relationships, possibly leading to a sense of belonging deficiency (Lakey & Cassady, 1990). An endless number of acquaintances or friends is not necessarily better. In fact, people seem to believe that quality and closeness is far more important than quantity in terms of friendships (Caldwell & Peplau, 1982). The desire to foster fewer but more intimate relationships supports the idea that one’s motivation to fulfill their need to belong decreases as this need is met (Baumeister & Leary, 1995). Thus, it seems that people devote their time and energy to deepening few, rewarding relationships as opposed to drawing connections with a wide variety of acquaintances.

It is also noteworthy to highlight that in the definition provided by Hagerty et al. (1992) above, there is a focus on the affective component of belongingness as opposed to objective reports on network supports. This affective component is best understood as one’s perception, or sense of, belonging. Research supports that this affective focus can be far more powerful in determining social disruption or mental health concerns (Antonucci & Israel, 1986), which is why it is a focus in Hagerty et al.’s (1992) definition of belongingness. To further explain, just because someone is involved in, or has a close proximity to, a system or environment does not necessarily mean that this individual feels a sense of belonging in said system or environment; one can simply go through the motions (Hagerty et al., 1992). Thus, participation in, and proximity to, systems and environments where there is the possibility for a sense of belonging is a necessary, but not sufficient notion. In fact, belongingness, rather than sheer social contact, appears to be the crucial buffering factor against loneliness, defined as “an individual’s subjective perception of deficiencies in his or her social relationships” (Russell, Cutrona, Rose, & Yurko, 1984, p. 1313). Jones (1981) found that lonely and non-lonely people do not
differ significantly in the amount of time they spend with people, but loneliness seems to instead be found more when there is a lack of intimate connections as opposed to a lack of social contact (Reis, 1990; Wheeler, Reis, & Nezlek, 1983).

**Measuring Belongingness**

The blossoming assessment of belongingness as a psychological construct comes in multiple forms, generally through the needs deemed appropriate by specific groups or people. An overall general sense of belongingness is a relatively new phenomenon to the literature as it is a unique element of relatedness heavily wrapped up in related, yet different constructs including social support, companionship, affiliation, attachment, alienation, and loneliness (Hagerty et al., 1992; Hagerty, Williams, Coyne, & Early, 1996; Lee & Robbins, 1995). Assessing one’s general sense of belonging can be both a strength and a weakness. The strength perspective posits that the global nature of one’s general sense of belonging has the potential to capture experiences of people who may not feel as though they belong to a specific group (i.e., LGBT community) that could be asked about as part of a research study, but feel they have a strong sense of belonging elsewhere. These strong bonds (and their effects) are arguably just as important to the person even though they may not be represented in the specific group or organization that the research is investigating. The weakness perspective theorizes that detailed information about participants’ sense of belonging in specific situations with different people is lost as participants attempt to “average” their sense of belonging when responding to questions on a general belongingness measure. So, for example, it is possible that a participant’s response could result in a moderate amount of perceived belonging after “averaging” their high perceived belonging among friends and low
perceived belonging among family. A researcher using a general sense of belonging measure would lose the specific information of where a respondent feels they do/do not belong and instead would be left to interpret a moderate amount of belonging for that participant. Taking both perspectives into account, I still decided it was best to use a general sense of belonging measure for the current research in hopes of beginning to better understand the broad role belonging may play in psychological distress among the current sample of lesbian, gay, and bisexual individuals after already accounting for other variables, prior to focusing on respondents’ sense of belonging within a specific group of people or organization.

**Sense of Belonging Instrument – Psychological Experience (SOBI-P; Hagerty & Patusky, 1995).** The SOBI-P is the most frequently cited measure in the psychological literature for assessing one’s sense of belonging. It has been used with a variety of samples including ethnically diverse populations (Lee & Williams, 2013; Liu, Yu, Wang, Zhang, & Ren, 2014) and sexual minority individuals (i.e., McCallum & McLaren, 2011; McLaren, 2009; McLaren, Jude, & McLachlan, 2008). In fact, the SOBI-P, a subscale of the overall SOBI, seems to be the first of its kind in attempting to measure one’s sense of belonging (Hagerty & Patusky, 1995). The SOBI-P, in conjunction with the SOBI-A (the second subscale assessing some antecedents or precursors to a sense of belonging including the desire and the ability for developing said sense of belonging) were found to account for 36.8% of the common variance in the exploratory factor analysis conducted during the SOBI development (Hagerty & Patusky, 1995). Evidence of construct validity of scores from the SOBI-P was also demonstrated through negative correlations between the SOBI-P and a loneliness measure ($r = -.62$ to -.76) among three different samples:
community college students, clients from inpatient and outpatient settings diagnosed with major depression, and a group of retired Roman Catholic nuns (Hagerty & Patusky, 1995). In the development of the scale, internal consistency reliability of scores from the SOBI-P ranged from $\alpha = .91$ to .93 depending on the sample, and a test-retest correlation based on scores from the student sample over an 8-week period was $r = .84$ (Hagerty & Patusky, 1995). Choenarom et al. (2005) found an even higher Cronbach’s alpha coefficient of .97 for scores on the SOBI-P among both individuals who do and do not struggle with depression. Noteworthy, the majority of items (17 out of the 18) on the SOBI-P are negatively worded, so it is possible that the instrument is indirectly measuring a sense of belonging by actually assessing a lack of belonging.

**General Belongingness Scale (GBS; Malone, 2011).** Given all of the information on the creation of the SOBI-P, Malone (2011) set out to achieve a concise and global measurement of general sense of belonging with a better balance of positively and negatively worded items in hopes of accounting for individual differences in item interpretation. In the exploratory factor analysis, the 12 proposed statements of the GBS were found to account for 59.2% of the common variance with a two-factor solution, and a parallel analysis also supported a two-factor solution, accounting for 68.3% of the common variance (Malone, 2011; Malone et al., 2012). The two factors were coined Acceptance/Inclusion and Rejection/Exclusion due to the phrasing of the items and their utility (Malone, 2011; Malone et al., 2012). All items are used to calculate an overall sense of belonging, after reverse scoring negatively worded items. High internal consistency reliability throughout GBS construction was found ($\alpha = .92$ to .95), along with strong patterns of convergent validity with scores from the SOBI-P ($r = -.86$). The
negative correlation supports convergent validity given that lower scores on the SOBI-P represent an increase in perceived belongingness (Malone, 2011; Malone et al., 2012).

Given that the GBS is new to the field as of six years ago, not many studies have documented its use. One recent dissertation conducted by Moore (2014) used the GBS to assess overall belongingness when looking at how Facebook use contributed to well-being. The author found a strong reliability coefficient of $\alpha = .94$ for scores on the GBS among the 653 participants varying in reported ethnicity, gender, and age. Additionally, scores on the GBS demonstrated strong reliability ($\alpha = .95$) in a study assessing constructs of connectedness and their overlap with nature relatedness, especially in terms of predicting happiness (Zelenski & Nisbet, 2014). To assess how the GBS performed among a sample of sexual minority individuals specifically, a pilot test of the GBS on a sample of 65 lesbian, gay, and bisexual community members was conducted. Results highlighted impressive internal consistency within the sample ($\alpha = .95$; Haug, Hinerman, & Softas-Nall, 2016). Since the aim of the current study was to assess an overall sense of belonging among sexually diverse individuals and the available psychometric properties of the GBS demonstrate adequate reliability and validity for research purposes, the GBS was used to assess participants’ sense of belonging.

**Psychological Distress**

In the literature, the concepts of mental health problems, psychological problems, mental distress, and psychological distress are used interchangeably so it is challenging to find a commonly used definition. For the purposes of the current study, psychological distress was conceptualized as the general, subjective experience in which individuals feel like they are unable to function as they normally would on a daily basis, ranging
from minimal to severe difficulties (Abeloff et al., 2000). Common indices demonstrating psychological distress found in the literature include pronounced anxiety or depression, frequent substance use, dissatisfaction with life, poor subjective well-being, and suicidal thoughts (i.e., Keyes, 2005; King et al., 2008; Orth et al., 2008; Weber-Gilmore, Rose, & Rubenstein, 2011). The cause of psychological distress is different for every person, but the overarching idea is that an individual’s psychological resources become depleted due to an excess of stressors, so they are unable to cope or readjust to additional life demands (Thoits, 1995). Stressors, broadly defined, include any environmental, social, or internal demand which requires the individual to readjust their usual behavior patterns (Thoits, 1995). Through this definition, it is clear that if one experiences an excess of stressors, problems adjusting to life demands and eventual psychological distress are likely to follow. Important to note is that psychological distress is not synonymous with mental illness. Mental illness may stem from psychological distress, but it has specific diagnostic criteria that need to be met for a diagnosis, whereas one may experience psychological distress without meeting psychological diagnostic criteria as found in the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013). To be clear, the research reviewed below discusses psychological distress, not diagnoses.

There are ample research studies assessing associations between various demographic characteristics and psychological distress. Many of these studies are correlational as opposed to causational, but it is important to be aware of some of the
common relationships found in the literature. For example, ethnicity and SES have been tied to psychological distress in various forms for different people and both are briefly reviewed below.

Psychological distress levels, especially when conceptualized as depression, have been found to differ based on ethnicity. More specifically, Hasin et al. (2005) found in their sample of over 43,000 adults that major depressive disorder was more common among Native American-identified individuals. Moreover, Young et al. (2010) found that compared to Caucasian students, Asian-Americans showcased significantly higher levels of depression. African Americans and Mexican individuals have also demonstrated significantly higher depression rates, and significantly lower mental health care use than Caucasian individuals (Gonzalez et al., 2010; James et al., 2017). The difference in depression rates among various ethnicities appears strong and recurring without a clear answer as to how or why this is the case. Cokley et al. (2017) theorized that the mental health disparities found between European Americans and racial/ethnic minority college students is at least partly explained by the differences in perceived discrimination. Since feelings of invisibility, racial segregation, and racial microaggressions are all potential avenues by which one can experience discrimination, and ethnic minorities are more likely to experience these circumstances, Cokley et al. (2017) argued it is no question people of color have higher rates of psychological distress, manifesting most commonly as anxiety or depression, and lower levels of life satisfaction.

Clearly the relationship between ethnic minorities and psychological distress is complex. To add, the research on the National Institute of Mental Health’s Collaborative Psychiatric Epidemiology Surveys highlights that the recurrence and severity of
depression among ethnic minorities is impacting those who already struggle with inequalities in healthcare (Gonzalez et al., 2010). This is a major public health concern for all people, but especially those identifying as an ethnic minority. Given the differences in experienced psychological distress depending on one’s ethnicity highlighted in this brief review, ethnicity is deemed an important construct to measure and control for in the current study.

Further, it is becoming well-founded that one’s SES is related to psychological distress, at least in developed countries. For instance, there is abundant research showcasing that there is an increased burden of anxiety and depression, through individual vulnerability in addition to decreased access to resources, among lower-income individuals (Hasin et al., 2005; Myer et al., 2008). Individuals in poverty tend to have worse health and higher mortality rates than those living above the poverty line, and the middle class also tends to have poorer health than the wealthy (American Psychological Association, Task Force on Socioeconomic Status, 2007). James et al. (2017) found that low-income individuals held 80% increased odds of being depressed when compared to higher SES individuals. Further, researchers have found that psychological stress related to poverty or job insecurity exacerbates mental and physical health conditions across the life span, in addition to creating ample room for concurrent or subsequent mental health problems such as depression, personality disorders, substance abuse, and suicide (i.e., Lorant et al., 2003; Xue, Leventhal, Brooks-Gunn, & Earls, 2005). Higher rates of anxiety, emotional stress, and depression were found to be prevalent among students coming from a low-income background while working toward an undergraduate degree (Jury et al., 2017). This decreased SES - increased
psychological distress association, commonly observed in European, Australian, and North American samples, was also found among a sample of 4,351 South African adults (Myer et al., 2008), but more research on developing countries is still needed to better understand the true impact of this association. In fact, Myer et al. (2008) noted that there have been only a few studies that assessed mental health outcomes after controlling for SES and this may lead to erroneous results interpretation. In hopes of accurate results interpretation, SES was controlled for in the current study.

Through this brief review, it seems that there are strong ties between psychological distress, ethnicity, and SES. This is, of course, not an extensive list, but with this increased awareness recognizing the differential effects of ethnicity and SES on psychological distress, it seems important to control for these factors in research when possible.

Measuring Psychological Distress

Paralleling the psychological literature and the numerous ways psychological distress is discussed, there are also several ways in which to measure psychological distress quantitatively. Researchers in many studies choose to assess one specific domain of distress (i.e., depression, anxiety) and, therefore, use symptom-specific assessments. Since the current study focused more on overall psychological distress, I used a general assessment of this variable.

The HSCL-21 is a shortened version of the 58-item Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). This widely used 21-item measure is designed to assess general psychological distress along three different dimensions: general feelings of distress (GFD), somatic distress (SD), and performance
difficulty (PD). The GFD subscale measures common thoughts and emotions associated with feeling distressed (e.g., “Feeling lonely”). The SD subscale assesses the extent to which distress is affecting the body and causing physical concerns (e.g., “Pain in the lower part of your back”). And the PD subscale assesses how distress affects one’s ability to perform daily tasks (e.g., Trouble remembering things”). Participants respond on a 4-point Likert-type scale that ranges from 1 (not at all) to 4 (extremely) indicating the extent to which the given symptom has been troublesome in the past week. Taking all three subscales together has produced a reliable and valid assessment of general psychological distress. Scores are generally averaged to derive an overall distress level; higher scores indicate greater overall distress. Green et al. (1988) found high internal consistency for the HSCL-21 through split-half reliability (.91) and through a Kuder-Richardson reliability coefficient (KR20 = .90) for total distress scores. The authors also found a clear three-factor structure to assess various symptoms of psychological distress among three different groups: a student group, a professional group, and a clinical group (Green et al., 1988). Construct validity has been demonstrated by mean scores differing significantly between clinical and non-clinical samples, and strong correlations between scores on the HSCL-21 and other anxiety measures (Deane, Leathem, & Spicer, 1992).

Cepeda-Benito and Gleaves (2000) found that the HSCL-21 produced a similar 3-factor structure in a variety of samples including European-American, African-American, and Latina/o college students. Cronbach’s alpha for a sample of Asian American sexual minorities was $\alpha = .93$ (Szymanski & Sung, 2010), and Cronbach’s alpha of .93 was also found for a sample of Latina/o sexual minority individuals (Velez et al., 2015). Due to the brief nature of the HSCL-21, the strong validity and reliability evidence across various
samples in diverse settings, and the fact that the HSCL-21 is “a highly suitable scale for comparing mean levels of discomfort for different groups” (Green et al., 1988, p. 68), the HSCL-21 was used in the current study to assess overall psychological distress.

**Belongingness and Psychological Distress**

It could be assumed that if a supportive environment where one feels like they belong is lacking in someone’s life, then there could be negative mental health repercussions. A powerful quote from Baumeister and Leary (1995) demonstrates this connection:

> The centrality of belongingness to human psychological functioning also has implications for the treatment of emotional and behavioral problems. From our standpoint, a great deal of people's psychological difficulties reflects emotional and behavioral reactions to perceived threats to social bonds. As has been shown, many of the emotional problems for which people seek professional help (anxiety, depression, grief, loneliness, relationship problems, and the like) result from people's failure to meet their belongingness needs. Furthermore, a great deal of neurotic, maladaptive, and destructive behavior seems to reflect either desperate attempts to establish or maintain relationships with other people or sheer frustration and purposelessness when one's need to belong goes unmet. (p. 25)

Specifically, ill effects on health, adjustment, and well-being when one does not fulfill this belonging aspect of their life have been found through past research (Baumeister & Leary, 1995). More specifically, Baumeister and Leary (1995) discussed how anxiety, depression, and grief have been found to relate to damaged, lost, or threatened social relationships. Hoyle and Crawford (1994) conducted a study among undergraduate
students and found that both depression and anxiety were statistically negatively correlated with a sense of belonging to their university. Direct effects between depression and sense of belonging were found even after other factors such as stress, spousal support, and social support were controlled for (Choenarom et al., 2005). Low self-esteem (Lee & Robbins, 1998) and suicidal ideation (Bailey & McLaren, 2005) are also negative consequences that have been found in the literature when one does not feel a sense of belonging. The relationship between suicide and belongingness was suggested in psychological literature by Durkheim back in 1897. Durkheim’s (1897) hypothesis does not fully explain suicide, but the hypothesis that suicide could be explained as a result of the failure to integrate socially is still partially supported in research since a lack of social integration increases the likelihood of suicide (Joiner & Van Orden, 2008; Trout, 1980).

In fact, over 100 years later, research is enhancing the ties between suicide and belongingness. Joiner’s (2005) Interpersonal Theory of Suicide incorporates three overlapping constructs: perceived burdensomeness, thwarted belongingness, and a capability for suicide. Through this theory and its extensive literature search, social isolation, or the lack of a sense of belonging, has been found to be a powerful predictor of suicidal ideation (Joiner, 2005).

In addition to lowered psychological functioning, research has also found that people who do not have adequate supportive relationships experience greater stress (Cohen & Wills, 1985), more somatic health problems (DeLongis, Folkman, & Lazarus, 1988), lowered immune system functioning (Kiecolt-Glaser et al., 1984), and overall higher risk for other disease morbidities (Holt-Lunstad et al., 2017). Further, a pragmatic loss when one does not belong to a certain group is the loss of access to knowledge or
Lowered feelings of support from others and impaired relationships with others have been found to play a vital role in overall well-being (Rogers, Emanuel, & Bradford, 2003).

On the flip side, it is plausible that one’s perceived level of belongingness might serve as a protective factor against negative health outcomes. In fact, researchers have found that feeling as if one is an accepted member of a social group is a vital component to one’s emotional well-being (Bourhis et al., 2009; Holt-Lunstad et al., 2017), and belongingness has been found to have positive and important impacts on overall health functioning. (Baumeister & Leary, 1995; Pietromonaco & Collins, 2017). More specifically, past research has shown that happiness in life is strongly correlated with having achieved some close, personal relationships, along with overall subjective well-being (Baumeister, 1991; Campos & Kim, 2017). In addition, studies have indicated that solid social relationships appear to be a sufficient means of overcoming the relative deficit in happiness that introverted individuals tend to experience (Hotard, McFatter, McWhirter, & Stegall, 1989). Further, belongingness has been found to moderate the effects of combat-related stress (Hobfall & London, 1986; Solomon, Waysman, & Mikulincer, 1990) and suicide (Bryan, McNaughton-Cassill, & Osman, 2013). Generally speaking, it is clear that belongingness appears to have multiple positive and strong effects on emotional patterns and cognitive processes.

Support on the importance of belongingness to psychological well-being can be found in the therapeutic common factors literature, too (Imel & Wampold, 2008). The therapeutic process is facilitated by close, personal bonds, and the essential ingredient in client-centered therapy is unconditional social acceptance (Baumeister & Leary, 1995;
A task force completed by Norcross and Wampold (2011) found that the therapeutic relationship makes substantial and consistent contributions to the outcome independent of the type of treatment. It is also a common frame of thought that therapists assist clients in obtaining a stronger social support network. Given the research findings that people who have strong connections with others are happier, healthier, and better able to cope with the stresses of everyday life (Baumeister & Leary, 1995; Pietromonaco & Collins, 2017), it seems like an effective use of time to discuss skills in hopes of enhancing individuals’ belongingness in their everyday lives. Another avenue where the benefits of a sense of belonging can be found is in the group therapy domain. Yalom and Leszcz (2005) argued that a main part of the effectiveness of group therapy is fostering a sense of belonging, otherwise known as *group cohesiveness*. The sharing of troubles and the realization that others have similar problems is therapeutic in and of itself, but the sharing of one’s inner world and then the acceptance of others is really what has been demonstrated to be tied to positive therapeutic outcome (Yalom & Leszcz, 2005).

**Self-Esteem**

Another important variable that needs to be taken into consideration when discussing psychological distress is self-esteem. There is literature to support self-esteem’s association with both psychological distress and belongingness, but first, it is critical to understand the construct in its own right.

Self-esteem can be thought of as the global, subjective appraisal of one’s value as a person, including both beliefs and emotions about oneself (Marcussen, 2006). In other words, self-esteem is an affectively-laden self-evaluation of what one is really worth (Yalom & Leszcz, 2005). To note that self-esteem is affectively-laden is to say that...
instead of simply evaluating one’s behavior as “good” or “bad” cognitively, one will also likely feel “good” or “bad.” It is believed that “one’s perceptions of the attitudes of others toward oneself come to determine how one regards and values oneself” (Yalom & Leszcz, 2005, p. 64). These perceptions of attitudes get adopted by individuals if they are consistent and congruent, developing a stable sense of self-worth, or self-esteem.

It is important to note that global self-esteem is conceptually different from a variety of related concepts, including dimension-specific self-esteem and collective self-esteem (Crocker & Major, 1989). Global self-esteem tends to be correlated with one’s evaluations of a specific dimension of the self, but it is important to note that these ideas are not the same conceptually or empirically. For example, it is possible that one may evaluate oneself negatively on a given dimension but showcase overall high self-esteem. General self-esteem appears to be heavily affective in nature and tends to be associated with overall psychological well-being, whereas dimension-specific self-esteem (e.g., academic achievement) appears to have a stronger cognitive component relating more strongly with behavior (Jibeen, 2017). Further, collective self-esteem refers to evaluations of the worthiness of one’s social identity as opposed to one’s overall individual rating of worth. Again, it is possible to have varying levels of esteem depending on if one is evaluating oneself (global self-esteem) or a social group identity (collective self-esteem; Crocker & Major, 1989).

Self-esteem has a complex reputation in the psychological literature with researchers attempting to understand it since the 1960s. Interestingly, the actual function of self-esteem is still unknown. There are a variety of perspectives and theories attempting to discover the role of self-esteem and why people should be so concerned
with it including ideas of well-being, positive affectivity, coping, and enhancing one’s social standing (Leary & Baumeister, 2000), but the “true” function of self-esteem is still yet to be determined.

Since self-esteem is subjective by definition, it may or may not be reflective of objective ability or goodness. Regardless, self-esteem has been found to affect the way people interact with others and their surrounding environments (Chao, Longo, Wang, Dasgupta, & Fear, 2014), along with also having an impact on their private self (Jibeen, 2017; Leary & Baumeister, 2000). There is an extensive list of research regarding self-esteem’s role in social, developmental, and cognitive psychology. For example, self-esteem has been discussed in research regarding social comparison (Wills, 1981), self-handicapping (Jones & Berglas, 1978), emotional and behavioral problems (Leary, Schreindorfer, & Haupt, 1995), and ego distortion (Greenwald, 1980).

Self-esteem also has been shown to have a variety of effects on emotional patterns. For instance, depression, anxiety, jealousy and hurt feelings have all been linked to when one “loses” self-esteem (Leary & Baumeister, 2000). Therefore, research supports the notion that people showcase a strong motivation to protect or enhance their self-esteem (Jones, 1973). In fact, there are two main views in the psychological literature regarding people’s search for feedback about themselves, and both have supportive evidence. The first theory is that people will seek positive, self-enhancing feedback about themselves in hopes of boosting their self-esteem; the other is that people will seek consistent feedback confirming their already existing views of themselves (Sedikides & Strube, 1997). These theories may seem contradicting, but they are the same in that people want to avoid self-esteem losses.
Measuring Self-Esteem

In reviewing possible measures for self-esteem, two scales seemed to dominate the literature: the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992) and the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Each is reviewed in turn below.

**Collective Self-Esteem Scale (CSES; Luhtanen & Crocker, 1992).** The CSES is comprised of 16 items making up four subscales (membership, private, public, and identity). In the initial scale construction and subsequent confirmatory factor analyses, 60.7% to 72.3% of the variance was accounted for by all four subscales, and reliability analyses showcased *alphas* ranging from .73 to .88 depending on the subscale among various undergraduate student samples (Luhtanen & Crocker, 1992).

The CSES was created to be a flexible measure that could be adapted to a variety of specific identities (gender, sexual orientation, ethnicity, religious affiliation) without any psychometric consequences. Recall that a global self-esteem level can be differentiated from evaluations about one’s specific social identities (Crocker & Major, 1989). Therefore, the CSES is generally used when the researcher is interested in esteem regarding a specific identity as opposed to a global personal evaluation. The CSES in its entirety or only certain subscales have been used for assessing ethnic minority identity self-esteem (Branscombe, Schmitt, & Harvey, 1999; Cassidy, O’Connor, Howe, & Warden, 2004) and sexual minority identity self-esteem (Gray & Desmarais, 2014; Mohr & Sarno, 2016). Regardless of the assessed identity or if all of the subscales were used, the psychometric properties of the CSES appear to remain strong for research purposes.

**Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965).** This 10-item self-report measure was designed to assess a global evaluation of self-worth and it is the most
commonly used self-esteem measure in the psychological literature by far (Blascovich & Tomaka, 1991; Grilo, White, & Masheb, 2009). Scores on the RSES repeatedly demonstrated strong internal consistency regardless of the population of interest with alpha reliabilities ranging from .72 to .88 (Gray-Little, Williams, & Hancock, 1997). More specifically, self-esteem has been successfully assessed using the RSES in adolescence and young adulthood (Kidd & Shahar, 2008; Orth et al., 2008) and among sexual minority individuals (Balsam & Mohr, 2007; Haug et al., 2016; Lambe, Cerezo, & O'Shaughnessy, 2017; Mohr & Fassinger, 2000), transgender individuals (Barr, Budge, & Adelson, 2016; Garofalo, Deleon, Osmer, Doll, & Harper, 2006), and ethnic minority individuals (Chao et al., 2014; Velez et al., 2015; Szymanski & Gupta, 2009). Scores from the RSES have also demonstrated high test-retest reliability ($r = .82$; Fleming & Courtney, 1984). Validity evidence for scores on the RSES has been demonstrated through correlations with other measures of self-esteem (Demo, 1985; Rosenberg, 1979) and through negative correlations with depression, anxiety, and psychosomatic distress (Wylie, 1989). Moreover, the RSES has been successfully translated into 28 different languages and administered to 16,998 individuals in 53 nations (Schmitt & Allik, 2005). The findings from Schmitt and Allik’s (2005) cross-cultural study found that the internal consistency reliability and factor structure of scores from the RSES replicated across languages. Due to the overwhelming use and support for the RSES in the psychological literature, this measure was chosen to assess participants’ global evaluation of self-worth in the current study.
Self-Esteem and Psychological Distress

A growing body of research regarding the vulnerability model, stating that low self-esteem operates as a risk factor for psychological distress, has received support (Beck, 1967; Harris, 2010; Orth et al., 2008). Within this model, researchers believe that individuals with low self-esteem have fewer coping mechanisms or resources allowing for a higher likelihood of experiencing distress, with the opposite also being assumed (Jibeen, 2017; Orth et al., 2008). For example, Ford and Collins (2010) found that compared to high self-esteem colleagues, individuals with low self-esteem responded to rejection by appraising themselves more negatively and making more self-blaming attributions. There is debate in the literature on the direction of causality between low self-esteem and depression, specifically, since it seems to have a reciprocal effect (Orth et al., 2008; Roberts & Monroe, 1994). Some studies show support for low-self-esteem being a causal predictor for depression, whereas other studies indicate that low self-esteem is a consequence, or symptom, of depression. A more recent meta-analysis covering 77 studies conducted by Sowislo and Orth (2013) found that the effect of self-esteem on depression was significantly stronger than the effect of depression on self-esteem.

On the contrary, Marcussen (2006) found that individuals with high self-esteem tend to have better mental health and are more resilient in the face of hardship compared to those with lower self-esteem (Jibeen, 2017), perhaps because those with higher self-esteem may experience a greater sense of control over their self-evaluation (Judge, Erez, Bono, & Thoresen, 2002). Self-esteem was found to be a protective factor against one’s subjective loneliness and health status among a sample of 208 homeless youth (Kidd &
Shahar, 2008). It also has been found to buffer against negative psychological effects of discrimination among LGB individuals (Douglass et al., 2017) and patients with pulmonary tuberculosis (Feng & Xu, 2015).

An interesting point that Chao et al. (2014) found is that racism has a moderating effect on the relationships between self-esteem and psychological distress. The researchers explained that when African American individuals perceive more racism, it is likely that they have a harder time maintaining lower psychological distress, whereas when less racism is perceived, African Americans might feel that they can maintain less psychological distress regardless of their self-esteem level (Chao et al., 2014). Follow-up research and studies assessing different ethnic minority groups is warranted to see if this is a common finding, but it is important to keep in mind that self-esteem and psychological distress might be a bit more complex for those identifying as ethnic minorities.

**Self-Esteem and Belongingness**

Unlike past theories indicating that self-esteem plays a direct, causal role in thought, emotion, or behavior, Leary and Baumeister (2000) argued that self-esteem is a psychological monitor of one’s social belongingness. Through this theory, coined *Sociometer Theory*, self-esteem is not of interest to individuals for its own sake of feeling good about oneself, but because it resembles a gauge for one’s eligibility for lasting, desirable relationships (Leary & Baumeister, 2000). For example, if one has high self-esteem, this is a reflection of the perception that one is a valued person for close relationships or group membership (Leary & Baumeister, 2000). To further explain, one’s self-esteem level monitors the quality of one’s relationships so as to respond accordingly.
in hopes of maintaining a level of acceptance by other people, according to Sociometer Theory (Leary & Downs, 1995). Having a monitor for something seemingly so important to one’s overall well-being makes practical and evolutionary sense, especially because authors have also suggested that favorable self-views might sometimes be dependent on the validation and approval of others (Baumeister, 1982; Wicklund & Gollwitzer, 1982).

Yalom and Leszcz (2005) discussed the relationship between self-esteem and belongingness as it pertains to groups and group therapy. Generally, they discussed the deleterious effects of being excluded from a group on self-esteem, especially as a developing adolescent. More specifically, they discussed a reciprocal relationship between an increased sense of belonging in the therapy group and increased self-esteem. Simply put, in addition to one’s subjective self-worth appraisal, people are always concerned with and influenced by the evaluation of others, especially when that evaluation comes from the groups to which they belong (Yalom & Leszcz, 2005). With all of this in mind, it is clear that the interplay between one’s overall self-esteem and one’s desire to belong or one’s perceived sense of belonging appears clear and strong.

It cannot go unmentioned that the majority of the research noted above did not specifically differentiate results based on sexual orientation. This is not to say that the above-mentioned studies are flawed, but rather point out that there is the possibility of different results regarding non-heterosexual individuals. Therefore, a thorough review of sexual orientation and outness was conducted and reported below, along with its relationship with psychological distress, self-esteem, and belongingness.
Sexual Orientation, Identity, and Outness Levels

There are a variety of ways to define sexual orientation. Many of the definitions focus on one’s sexual attractions, actions, and/or relationships. Moradi et al. (2009) made a clear point in their research that sexual orientation described in this way may or may not be the same as one’s sexual identity. For example, it is possible that one’s same-sex sexual attractions and behaviors do not reflect one’s heterosexual identity for a variety of personal reasons. The opposite is also possible (Hunter, 2007). Importantly, in the current research, one’s sexual orientation (i.e., sexual attractions and sexual activity) was assumed to be synonymous with their sexual identity and, therefore, the terms sexual orientation and sexual identity are used interchangeably throughout the study.

Interestingly, Diamond (2005a) stated that one’s sexual identity might differ across situations and developmental lifespan. In fact, there is ample research to demonstrate that sexual identity can be fluid across the lifespan, changing as the individual continuously encounters new people and experiences (Hunter, 2007). Savin-Williams (2005) noted that individuals in adolescence experiencing same-sex attractions, fantasies, or even engaging in same-sex behaviors may not recognize or acknowledge this behavior as representative of a sexual minority identity. Even if they do acknowledge these feelings and behaviors, it is possible that they may not be prepared to identify with a culturally defined sexual identity category due to developmental or political reasons (Savin-Williams, 2001). This may be especially true for someone who experiences attractions to more than one gender and engages in sexual behavior with them (Hunter, 2007). Some may feel that conventional labels used are not descriptive for their personal experience (Russell, Clarke, & Clary, 2009). Even with this research documenting the
fluidity of sexual identity, research estimates indicate that there are over nine million self-identified lesbian, gay, or bisexual (LGB) individuals living in the Unites States (Gates, 2011). Collectively, these individuals can be classified as sexual minority individuals (Balsam & Mohr, 2007).

To better appreciate one’s “outness level” as it relates to sexual minority individuals (reviewed below), it is important to have an in-depth understanding of the processes sexual minorities go through as they explore and integrate a non-heterosexual identity into their overall self-concept. Therefore, a review of sexual identity models takes place prior to a discussion regarding sexual orientation outness.

Sexual identity development theories began getting a lot of attention in the psychological literature in the 1970s. Cass (1984) reviewed a variety of identity formation models (e.g., Cass, 1979; McLellan, 1977; Troiden, 1979) and found many similarities throughout them, primarily regarding a progression of behavioral, cognitive, and affective changes. For example, Cass (1984) mentioned that overwhelmingly across the models, individuals seem to grow in self-acceptance of a new way to describe their identity, develop a growing desire to disclose the existence of this identity to others, and yearn for more frequent contact with those who share a similar identity. These themes were even found more recently through a four-stage identity model discussing one’s awareness, exploration, commitment, and internalization (Fassinger & Miller, 1996; McCarn & Fassinger, 1996). There are many similarities among the different stage models of identity development making it appear that there is some accuracy to the development of one’s non-heterosexual identity. The few differences noted among the
models and theories have come about due to trying to capture an incredibly complex psychosocial process (Bilodeau & Renn, 2005).

It is important to note that within all of the proposed models of identity formation, there is the underlying assumption of a “change” or “shift” from one’s assumed heterosexual identity (Cass, 1984) and this can cause negative consequences for one’s emotional health, especially in the beginning (Bilodeau & Renn, 2005; Riggle et al., 2017). It is also important to note that many of the theories of identity development are described in clear-cut stages as a convenience factor, and that theorists acknowledge the process is generally much more fluid with stops, starts, and backtracking (Bilodeau & Renn, 2005).

Noteworthy, the majority of the original models have been formed through small sample sizes assessing mostly men, and focusing primarily on homosexual identity development (Bilodeau & Renn, 2005). There is continuous research attempting to better understand how these models and theories apply to women, bisexual individuals, and to different ethnic groups (i.e., Balsam & Mohr, 2007; Brown, 1995; Brown, 1997; Gonsiorek, 1995; Morris, Waldo, & Rothblum, 2001; Sears, 1989) among a variety of other demographic variables.

With all of this in mind, scholars have come to desire a more inclusive, fluid framework for understanding non-heterosexual identity. In fact, D’Augelli (1994) developed a “life-span” model of sexual orientation development attempting to take into account more fluid, social variables that the earlier models did not. Specifically, D’Augelli’s framework describes six “identity processes” that operate mostly independent of each other and are not ordered in stages; therefore, an individual might
see greater development in one area compared to another, especially at different times and in different settings. The six processes D’Augelli noted include exiting heterosexuality, developing a personal LGB identity, developing a LGB social identity, becoming a LGB offspring, developing a LGB intimacy status, and entering a LGB community.

Regardless of which model one views, the primary goal in one’s identity development is overcoming negative self-evaluation through increased self-acceptance, decreased internalized homophobia, and identity integration into the person’s whole self (Meyer, 2003). It makes sense that these aspects are all involved as the goal of one’s identity development because they feed into one another. Since internalized homophobia is defined as “self-directed prejudice, which is based on the individuals’ acceptance of and agreement with society’s negative evaluation of homosexuality” (Herek et al., 2009, p. 34), as one decreases their internalized homophobia, theoretically they are more likely to accept all parts of themselves, integrating identity components into a whole.

In addition to D’Augelli’s (1994) fluid sexual orientation development framework, Mohr and Kendra (2011) began discussing various dimensions of lesbian, gay, or bisexual identity. Specifically, the dimensions noted by the researchers include acceptance concerns, concealment motivation, identity uncertainty, internalized homonegativity/homophobia, [coming out as a] difficult process, identity superiority, identity affirmation, and identity centrality (Mohr & Kendra, 2011). Similar to the “identity processes” found in D’Augelli’s framework, these identity dimensions do not necessarily combine to achieve an overall identity representation because the various dimensions can be at different developmental phases (Mohr & Kendra, 2011). Therefore,
it is possible for one to be certain in one’s sexual identity, but still struggle with fears of rejection from others.

In a study of over 2,000 bisexual women or lesbians, Morris et al. (2001) found that, on average, their participants started questioning their heterosexuality at about the age of 18 and came out to friends and family at about 24 years old. This age range is supported through the review of a variety of identity development models (Bilodeau & Renn, 2005) and through the research of Hoburg, Konik, Williams, and Crawford (2004) who found that 30% of young women and 12 to 19% of young men reported same-sex feelings out of 202 self-identified heterosexual college students across a variety of geographical locations.

With an increased discussion regarding one’s sexual identity development came an increased discussion and conceptualization of the disclosure of sexual orientation, also known as one’s “outness level,” in the psychological literature. Outness level has been previously thought of in the psychological literature as a dichotomous variable, where one either has or has not shared one’s sexual orientation with others (Morris et al., 2001). With this view, one’s outness level would be considered a unidimensional construct. Other scholars have argued for a more continuous view of disclosure ranging from nonverbal cues to verbal declarations, and these types of disclosure can differ in various social spheres (Mohr & Fassinger, 2000). With this view, “outness levels in one sphere of functioning may be only moderately related to levels in another sphere of functioning, but outness levels in all of these spheres taken together are indicators of a general level of outness” (Mohr & Fassinger, 2000, p. 69). With all of this in mind, “coming out” is becoming more and more known as a continuous process as opposed to a one-time event
(Knoble & Linville, 2012; Mohr & Fassinger, 2003; Oswald, 2002). Further, up until recently outness was thought of as one unique construct, but Meidlinger and Hope (2014) found that outness is actually made up of two related, but unique constructs: concealment and disclosure. Disclosure has been operationally defined in studies as the active indication of one’s sexual orientation either verbally or through other actions, whereas concealment is the active avoidance of such a disclosure (Meidlinger & Hope, 2014). Importantly, Meidlinger and Hope (2014) clarified that just because one might initially openly disclose one’s sexual orientation to their parents, for example, if one is not met with acceptance, one may continue to conceal other aspects related to their sexual orientation (e.g., mentioning their significant other). It is important to note that it is completely up to the sexual minority individuals if they would like to disclose their sexual orientation (Quinn, 2006), and there are a variety of reasons why one might or might not. McCarn and Fassinger (1996) noted that even if one does not disclose one’s sexual orientation, this may not reflect a negative sexual orientation identity or psychological maladjustment, as much as it reflects an unsupportive social context. Some predictors regarding one’s level of outness that have been supported in the literature include one’s sexual orientation (lesbian versus bisexual, specifically), years questioning or certainty in one’s identity, and one’s involvement in the lesbian, gay, bisexual, and transgender (LGBT) community (Morris et al., 2001).

**Measuring Outness**

Assessing outness level in assessment form did not begin happening until the 1990s. Even with this, there was debate on whether or not outness was unidimensional (Waldo, 1999) or multidimensional (Berger, 1990). Many researchers ended up creating
their own measure of outness if it was a variable of interest (e.g., Herek et al., 2009; Morris et al., 2001). Two specific outness measures have been discussed in the literature as of late: the Outness Inventory (Mohr & Fassinger, 2000) and the Nebraska Outness Scale (Meidlinger & Hope, 2014).

**Outness Inventory (OI; Mohr & Fassinger, 2000).** The OI is a sensitive measure of outness attempting to capture the degree to which participants’ sexual orientation is known or openly talked about with people from a variety of different areas in the participants’ lives. It is the first formal attempt at scale creation for outness. Unlike past attempts, the OI tries to capture one’s outness levels even if one has not verbally disclosed their sexual orientation to some people in their lives but perhaps display subtle cues through dress or speech (Mohr & Fassinger, 2000). The OI is an 11-item self-report questionnaire representing different people one may encounter in their life including family, friends, work colleagues, and religious figures. Mohr and Fassinger (2000) found that outness could be represented in the OI by three interrelated factors (Out to World, $\alpha = .79$; Out to Family, $\alpha = .74$; Out to Religion, $\alpha = .97$) in addition to a structure in which these three factors load onto a single general outness factor. Validity evidence for scores on the OI has been documented primarily through high correlations with respondents’ identification with the LGBT community (Balsam & Mohr, 2007) and good convergent validity with predicted correlations when related to need for privacy (Mohr & Fassinger, 2000). Important to note is that the norming sample was only composed of lesbian women and gay men, and the majority of the participants were White, college-educated, and dwellers of a metropolitan area. Mohr and Fassinger believed that a similar factor structure would still have been found with a more diverse sample given past research on
multicultural sexual minorities. Since the creation of the OI, Meidlinger and Hope (2014) found internal consistency reliability estimates ranging from $\alpha = .84$ to .95 across genders including transgender individuals, and sexual orientations including bisexual individuals. Further, Moradi et al. (2010) found similar overall internal consistency levels for scores on the OI when comparing participants of color ($\alpha = .83$) and White participants ($\alpha = .82$).

**Nebraska Outness Scale (NOS; Meidlinger & Hope, 2014).** The NOS is 10-item measure that was highly influenced by the OI. Unlike the OI, the NOS conceptualizes outness as a combination of two related but distinct constructs: disclosure and concealment of sexual orientation; therefore, the NOS has two subscales that can be used independently if desired (NOS-D and NOS-C, respectively), but an overall outness score can also be found. In fact, Meidlinger and Hope (2014) found internal consistency ranging from $\alpha = .87$ to .92 across genders and sexual orientations for scores on the full-scale NOS. The full-scale NOS also showed a strong positive correlation with the OI ($r = .84$) and a moderate negative correlation with internalized homophobia ($r = -.45$), demonstrating good scale validity.

Since the NOS has only been published for roughly three years, very few studies have had time to use it in their research on sexual minorities. Important to note is that Wheldon et al. (2016) found a Cronbach’s alpha coefficient of .71 on scores from the NOS-C subscale among bisexual and gay male participants. Similarly, Currin et al. (2018) found a Cronbach’s alpha coefficient of .80 on scores from the NOS-D subscale and a Cronbach’s alpha coefficient of .86 on the scores from the NOS-C subscale among bisexual and gay male participants. The structure of the NOS including both concealment
and disclosure subscales, paired with its attempt at measuring outness without solely relying on the frequency one’s sexual orientation is discussed with others, make the NOS an appropriate assessment for overall outness in the current study.

**Outness and Psychological Distress**

There is no parallel of outness among heterosexual individuals, yet it is such a fundamental aspect of a LGB experience (Knoble & Linville, 2012), corresponding to a variety of implications for one’s social and psychological functioning. As stated above, individuals have the option to disclose their sexual orientation to others or not, and this varies greatly across relationships and domains (Legate et al., 2012). There are ample reasons for doing either in a variety of contexts, but it is important to note the common psychological costs of each. Generally speaking, disclosure can provide multiple mental health benefits, but personal or societal reasons may tempt people to conceal their sexual orientation identity (Legate et al., 2012; Riggle et al., 2017; Williams et al., 2017). If one decides to conceal their identity, the advantage is that the individual is most likely successful at avoiding possible stigmatization or negative regard; the trade-off is that research notes increased cognitive burden, more complex emotional strain, higher stress, and the diminished ability to connect with similar others (Legate et al., 2012; Meyer, 2007; Riggle et al., 2017; Viehl, Dispenza, McCullough, & Guvensel, 2017; Williams & Mann, 2017).

If one does decide to disclose, this disclosure of one’s sexual orientation can be met with a variety of reactions ranging from total rejection, harassment, and physical attacks to overwhelming acceptance (Mohr & Fassinger, 2003). It is the interpersonal acceptance of one’s sexual orientation identity that has been linked to have beneficial
ramifications. Parents are usually described as the most difficult people to disclose to and thus, are usually not the first people sexual minority individuals tell (Carnelley, Hepper, Hicks, & Turner, 2011). Disclosing one’s sexual orientation in the workplace has also been documented as an incredibly challenging endeavor sometimes resulting in the termination of employment (Ragins, Singh, & Cornwell, 2007). Mays and Cochran (2001) found in their U.S. probability sample that sexual minority individuals were twice as likely to get fired from a job than heterosexual workers.

Even if one’s disclosure is met with negativity occasionally, other studies have shown that it can have a beneficial impact. Morris et al. (2001) found that higher levels of outness predicted lower psychological distress in a large sample of over 2,000 lesbian and bisexual women, and Berger (1992) found that gay men were more satisfied with the social support they received from those who know of their sexual orientation. Disclosure of lesbian identity was associated with less anxiety, more positive affect, and greater self-esteem among a sample of 499 lesbian women (Jordan & Deluty, 1998).

It may seem tempting to think of outness and psychological distress as having a curvilinear relationship because there are risks with both concealment and disclosure, but this thinking is too simplistic. The relationship appears to be much more complex than that since one is not “guaranteed” to have high psychological distress in any given situation of disclosure or concealment of one’s sexual identity. In fact, in studies where there seems to be an association between outness and higher levels of mental health difficulties, researchers have concluded that this is most likely due to extrinsic oppression as opposed to individual internal factors (Ross, 1990). In fact, Legate et al. (2012) found through multilevel modeling that lesbian, gay, and bisexual individuals were more likely
to disclose in autonomy supportive environments, defined as interpersonal acceptance for genuine self-expression, as opposed to controlling environments. To further highlight how complex this relationship is, a recent study conducted by Riggle et al. (2017) showed that increased levels of outness predicted higher increased depressive symptoms among a sample of 373 LGB participants, primarily because of an increased risk for experiencing discrimination and minority stress. The researchers simultaneously discussed that increased outness positively affected one’s sense of authenticity, and therefore, their overall well-being (Riggle et al., 2017). Clearly, the relationship between outness level and psychological distress is a multifaceted one, and therefore outness level was deemed an important variable to control for in the current study.

Knoble and Linville (2012) conducted a qualitative study on 15 same-gender couples in hopes of providing more conclusive information on the association between outness and relationship satisfaction since their review of the quantitative literature produced inconclusive findings. Through the found themes, Knoble and Linville (2012) argued that outness influences relationship satisfaction, but not necessarily in a causal or unique manner. Outness instead might be an extension of one’s underlying value system as a sexual minority in the broader culture, and this in turn might impact relationship compatibility and satisfaction.

Interestingly, due to the sample size in Morris et al.’s (2001) study, they were able to complete ethnicity-unique analyses regarding outness among lesbian and bisexual women. They found that African-American identified women were lower on outness than Latina and European-American women, yet African-American women had reportedly self-identified as a sexual minority for longer periods of time compared to other ethnic
groups (Morris et al., 2001). Further, they argued that intersecting identities of minority status, for example, in race, gender, and sexual orientation, could make psychological distress worse when discussing their results of higher psychological distress scores in African-American and Asian-American lesbian and bisexual women (Morris et al., 2001). Higher psychological distress was also found in the form of internal conflicts between one’s racial and sexual orientation identities if perceived racism occurred in a fellow sexual minority individual (Sarno, Mohr, Jackson, & Fassinger, 2015).

**Sexual Minority versus Heterosexual Psychological Distress**

To better understand the seriousness of sexual minority psychological distress, perhaps it is best to conceptualize it compared to the heterosexual majority group. Past research has shown that those who identify as non-heterosexual are at-risk for having lower levels of mental health functioning than those who identify as heterosexual (Bostwick et al., 2014). In fact, the mental health disparities between heterosexual and sexually diverse individuals has become a public health concern in the United States (Williams & Mann, 2017). Meyer (2007) attributed attempting to develop a positive identity against a variety of social stigma, or negative attitudes and beliefs from the outside community, as playing a large role in increased health risk even with the reality that individuals experience challenges in developing their identity differently (Mohr & Kendra, 2011). More specifically, “sexual stigma” was defined by Herek et al. (2009) as a broad term referring to the “negative regard, inferior status, and relative powerlessness that society collectively accords anyone associated with non-heterosexual behaviors, identity, relationships, or communities” (p. 33). Herek et al. (2009) also clarified that sexual stigma is not only limited to heterosexual individuals’ view of non-heterosexual
individuals, but also that non-heterosexual individuals may internalize this stigma (internalized homophobia) and develop their own negative views and beliefs about themselves or other non-heterosexual individuals given most people are susceptible to societal perspectives including the devaluation of same-sex behaviors and attractions. With this in mind, it is not surprising that non-heterosexual individuals may struggle with their mental health functioning. In fact, Meyer (2007) reviewed the notion that vigilance, defined as one’s constant anticipation or expectation of negative regard from the dominant culture, is a form of defensive coping among sexual minorities. This vigilance concept helps explain some of the stressful effect of stigma resulting from having a minority identity, thus lowering mental health functioning.

To demonstrate, a study conducted by Conron, Mimiaga, and Landers (2010) found that compared to heterosexual individuals, bisexual individuals reported more current sadness and past-year suicidal ideation. Recent research with population-based samples have found that gay, lesbian, and bisexual youths are at an increased risk of suicide and depression in New Zealand and the United States (Lucassen et al., 2011). In fact, a study conducted on lesbian, gay, and bisexual adults living in New Mexico found that lesbian and gay adults were more than twice as likely to report having attempted suicide as their straight peers, whereas bisexual adults reported having attempted suicide about four times the rate of their heterosexual peers (Tomedi & Padilla, 2013). A study conducted on adolescents in Boston found that sexual minority students aged 13 to 19 were three and a half more times likely to engage in self-harm and five times more likely to report suicidal ideation than their heterosexual peers (Almeida, Johnson, Corliss, Molnar, & Azrael, 2009). Other articles show that LGB teens are twice as likely to be
bullied and more than four times as likely to attempt suicide (Rosenberg, 2017). Moreover, suicidal ideation is also different between sexual orientations, at least among women, highlighting that bisexual and lesbian women have significantly higher odds of ever contemplating suicide compared to heterosexual peers (Brittain & Dinger, 2015; Kerr, Santurri, & Peters, 2013). Perhaps not surprising, two recent meta-analytic reviews found that non-heterosexuals experience an increased lifetime risk of depression, anxiety disorders, panic attacks, and substance use disorders and dependency (Cochran & Mays, 2013; Fenichel, 2017; King et al., 2008). Even aside from diagnosable psychological disorders, “subthreshold mental health problems” that tend to be indicative of psychological distress including depressed or anxious mood and substance use were found to be higher in sexual minorities (Meyer & Frost, 2013).

King et al. (2003) found that gay men and lesbian women were more likely than their heterosexual counterparts to have lower levels of overall psychological and social well-being. This is not necessarily surprising given that one’s social well-being is a reflection of one’s relationship with their environment and the people in it (Meyer & Frost, 2013). Given that sexual minority individuals face stigma in the broader community, they may experience a lack of integration with their environment and struggle with gaining the acceptance of others. Noteworthy, positive well-being within sexual minority adults was found to be significantly related to perceived supportive contexts (Legate et al., 2012). Therefore, if one does not perceive a supportive context, their well-being may decrease.

Negative health consequences for sexual minority individuals have been found to be highest in states without laws extending protection over them such as job
discrimination, hate crimes, and relationship recognition (Hatzenbuehler, Keyes, & Hasin, 2009). To demonstrate, research has consistently showcased that sexual minority individuals need to negotiate minority stressors in the workplace on both a personal and structural basis. The climate of the working environment (e.g., how heterosexist it is) has been found to be related to sexual minorities’ psychological health, job-related outcomes, and job satisfaction (Meyer & Frost, 2013). In addition, since there is no Federal law protecting lesbian, gay, and bisexual workers from employment discrimination, sexual minority individuals face a higher percentage of discrimination and harassment in the workplace due to their sexual orientation. For example, the General Social Survey (GSS), a representative probability survey, found that 27% of lesbian, gay, and bisexual respondents had experienced at least one form of discrimination related to their sexual orientation during the five years prior to the distribution of the survey (Sears & Mallory, 2011). The higher prevalence rates of discrimination were found to be experienced by those openly out at work (Sears & Mallory, 2011), but concealing one’s sexual orientation at work comes with its own minority stress ramifications, particularly the cognitive burden of “hiding” one’s identity.

Negative effects on mental health were also found to be associated with the former denial of marriage rights for same sex couples regardless of their relationship status (Riggle, Rostosky, & Horne, 2010). On June 26, 2015, the Supreme Court ruled that same-sex couples can marry nationwide, but it is apparent that sexual minority individuals are still facing appeals and other structural and personal barriers in obtaining same-sex relationship recognition and the benefits afforded through marriage. These barriers and protests continue to portray same-sex relationships as “less than” and remind
sexual minority individuals of the level of social disapproval for their relationships (Meyer & Frost, 2013). Marriage laws aside, there are even mental health differences found between single and dating/partnered sexual minorities. Specifically, those in same-sex relationships may experience greater stress related to not being accepted, especially by their families, making it difficult to achieve intimacy needs. Without being able to achieve one’s intimacy needs, there is a risk for poorer mental health and decreased relationship quality (Meyer & Frost, 2013). Internalized homophobia has even been found to add a negative influence on sexual minority women’s sexual satisfaction. Generalized sexual problems, loneliness, and other relational strains have also been found to be associated with internalized homophobia (Frost & Meyer, 2009).

Sexual violence has also been found to significantly differ depending on one’s sexual orientation. The National Intimate Partner and Sexual Violence Survey from 2010 found that within their sample of 18,049 interviews, one in six heterosexual women have been raped in their lifetime compared to one in eight lesbian women and nearly half of bisexual women (Walters, Chen, & Breiding, 2013). Moreover, Brittain and Dinger (2015) found that gay men had over six times the odds of experiencing sexual penetration without consent compared to heterosexual men in their sample of over 113,000 college students. In regard to experiencing unwanted sexual contact in general, Walters et al. (2013) found differences in prevalence rates depending on sexual orientation. Specifically, 32.3% of lesbian women, 58% of bisexual women, and 25.9% of heterosexual women reported unwanted sexual contact in their lifetime. The prevalence rate reported from bisexual women was significantly higher than both lesbian women and heterosexual women (Walters et al., 2013). Further, 32.3% of gay men, 21.1% of bisexual
men, and 10.8% of heterosexual men reported experiencing unwanted sexual contact in their lifetime. The different prevalence rates found between gay men and heterosexual men were significantly different (Walters et al., 2013). It has been found that many individuals who have experienced sexual violence suffer from higher rates of depression, stress disorders, self-injurious behaviors, eating disorders, issues with sleep, and substance abuse among other concerns (RAINN, 2016). Given the differing rates of sexual violence across sexual orientation, it can be postulated that differences in these mental health concerns (e.g., eating disorders, sleep problems) can vary by sexual orientation as well, at least as a reaction to experienced sexual violence.

Moreover, lesbian, gay, and bisexual individuals experience higher rates of poverty than their heterosexual peers. Specifically, Badgett, Durso, and Schneebaum (2013) found that 15% of heterosexual men and 21% of heterosexual women live in poverty, compared to 25% of bisexual men, 30% of bisexual women, 20% of gay men, and 23% of lesbian women. Poverty has consistently been linked to poor psychological health within individuals partly due to poverty-related stress including economic strain, exposure to violence, frequent moves and transitions, and exposure to traumatic experiences (Santiago, Kaltman, & Miranda, 2013; Wadsworth et al., 2008). With this knowledge of higher poverty rates among sexual minority individuals paired with the well-researched ill psychological effects due to poverty, one might hypothesize that sexual minority individuals are at risk for higher rates of psychological distress compared to their heterosexual peers.

Why are these mental health challenges so drastically different based on sexual orientation? Homophobia is a major contributor to this. Given that homophobia can be
broadly understood as a prejudice toward sexual minorities, victimization, stigmatization, harassment, hostility, alienation, and physical and verbal abuse can come with it increasing levels of depression and other mental health struggles (D’Augelli et al., 2006; Gonsiorek, 1993; Huebner et al., 2004; Olson & King, 1995). Further, Meyer (2007) discussed that there are direct and indirect routes of experiencing prejudice. Direct routes are easily detectable through violence and overt discrimination. One major example of direct discrimination includes hate crimes. In fact, in 2011, 21% of all hate crimes in the United States resulted from sexual orientation bias (Federal Bureau of Investigation, 2011). LGBT hate crimes have been shown to trigger distress and yield lasting effects on the psychological well-being of sexual minorities (Balsam & Hughes, 2013; Bell & Perry, 2015; Perry & Dyck, 2014).

Direct routes may be easier to see, but indirect routes are subtler and more pervasive. Examples of indirect prejudice include barriers to health care, inadequate attention to health concerns, and insensitivity or ignorance to cultural aspects of being a sexual minority (Meyer, 2007). A specific form of indirect discrimination, microaggressions, defined as unintended and unconscious insults and dismissals, has been studied qualitatively using focus groups among bisexual women. The findings highlighted that microaggressions act as stressors in the lives of these bisexual women and adversely affect their mental health and well-being (Bostwick & Hequembourg, 2014). Regardless of the prejudicial route, these discriminatory social processes are stressful and hurtful for the sexual minority individuals, and research supports this strong, positive correlation between experienced discrimination and mental health morbidity (Cochran & Mays, 2013). Stigma and discrimination have been studied, but there is a
dearth of research assessing how belongingness fits into the equation of differential mental health concerns among lesbian, gay, and bisexual individuals.

**Bisexual-Specific Psychological Distress**

Additionally, research has found that an even greater decrease in mental health functioning is possible if one identifies as bisexual as opposed to lesbian or gay because of the general lack of acceptance for bisexuality (Eliason, 2001). For example, depression and anxiety have been prevalent findings among bisexual-identified individuals, especially women, due to associated bi-stigma (Bostwick, 2012; Kerr et al., 2013; Lewis et al., 2009). Brittain and Dinger (2015) found significantly higher rates of debilitating depression among bisexual women and bisexual men when compared to their respective sex-specific peers. In a global mental health study of college-aged women, Kerr et al. (2013) found that bisexual women reported the worst mental health status in all of the following areas: anxiety, anger, depressive symptoms, self-injury, and suicidal ideation and attempts.

Bi-stigma, binegativity, and biphobia are all terms coined to discuss negative attitudes toward bisexual individuals and bisexuality (Bostwick, 2012; Eliason, 2001). There have been bisexual women who have testified to instances in which they have felt their bisexuality silenced, erased, or otherwise contested (Bostwick & Hequembourg, 2014; Flanders, Ross, Dobinson, & Logie, 2017). In fact, Israel and Mohr (2003) found that when bisexual identity is not being ignored, it is often associated with HIV/AIDS, polygamy, and promiscuity. In fact, the idea that bisexual-identified individuals are inherently unfaithful or promiscuous has continuously been found through newer research (Dyar, Lytle, London, & Levy, 2017; Hoang, Holloway, & Mendoza, 2011).
Further, researchers have found that Canadian bisexual women feel others treat their identities as a sign of indecisiveness, transitory, or simply a ploy to retain heterosexual privilege (Barker & Langdridge, 2008; Bower, Gurevich, & Mathieson, 2002). Not even therapists are immune to bisexual stigma (Mohr, Chopp, & Wong, 2013).

To add, a qualitative study conducted by Alarie and Gaudet (2013) highlighted four specific mechanisms in which participants made bisexuality “invisible.” More specifically, results showed that participants demonstrated ways in which to (a) ignore bisexuality as an identity; (b) depict bisexuality as a temporary identity, sexuality, and/or lifestyle; (c) make it difficult to be a “real,” true bisexual; and (d) devalue bisexuality as a legitimate permanent identity and lifestyle (Alarie & Gaudet, 2013). In discussing the invisibility of bisexuality, Alarie and Gaudet (2013) noted that there is a gender component that needs to be taken into account. They found that same-sex affection, even if classified as bisexual behavior, heterosexualizes women and homosexualizes men (Alarie & Gaudet, 2013); thus, male bisexuality appears to be judged more harshly. In both cases, the bisexuality experience is silenced and brushed off as transitory. Recent research by Burke et al. (2017) has shown that one rationale as to why people struggle with accepting bisexuality as a legitimate sexual orientation includes the idea that people tend to have a “need for closure.” Given bisexuality offers an inherent element of ambiguity about sexual attraction and behavior, one’s “need for closure” is likely triggered by this ambiguity, therefore negatively affecting an individual’s comfort level, along with their view of bisexual individuals. The aspect of writing both same-sex and opposite-sex affection as “indecisiveness” only makes it increasingly harder to truly identify as bisexual, especially if one is not attracted to both sexes equally. This high
standard extremely limits those who “qualify” for the bisexual identity. By devaluing bisexuality as a legitimate sexual orientation in oneself and others, individuals continue to influence others in choosing a side of the heterosexual-homosexual dichotomy so as to avoid criticism and marginalization.

A quantitative study conducted by Lannutti and Denes (2012) found that 45% of the female-identified participants claimed to have had kissed a girl before. This public display of same-sex female affection has been increasing in past years and on the surface seems to be showcasing more of a societal acceptance of female bisexuality, but this may not necessarily be the case (Diamond, 2005b; Fahs, 2009). The study by Lannutti and Denes found that participants were more likely to think of two women kissing as straight than bisexual or lesbian, and performing the act to please a male partner by acting out one of his fantasies, therefore acting more promiscuously for attention. In fact, studies have shown that bisexual experiences for women are quickly becoming a new norm or a rite of passage to underscore one’s heterosexuality particularly during emerging adulthood (Alarie & Gaudet, 2013; Fahs, 2009). What is interesting to note about this debatable increase of acceptance of bisexual physical affection does not seem to extend to same-sex male affection (Rupp & Taylor, 2010). Perhaps this finding is in support of the argument that there is not an increasing acceptance of bisexual expression for the purposes of more inclusive sexuality recognition, but for other heterosexual purposes. Moreover, Diamond (2005b) argued that an increase in the acceptance of female-female affection for the wrong reasons and the media portrayal of “straight girls trying bisexuality to then go back to heterosexuality” is harmful to the accurate understanding and perception of
bisexuality. It is harmful in many ways to those who truly identify as bisexual and for those who are looking for good role models in attempting to explore their own identity.

Researchers have argued that perhaps part of why bisexual-identified individuals experience an even greater decrease in mental health functioning is because they do not “fit” in society’s constructed binary of heterosexual or homosexual sexual orientations (Gray & Desmarais, 2014), or as Rust (2000) called living in a “monosexual view.” Balsam and Mohr (2007) determined that when compared to lesbian and gay individuals, bisexual individuals tended to show an increased identity confusion and decreased sexual orientation disclosure crediting a lack of a visible bisexual community and the societal pressures to identify within the heterosexual-homosexual binary as the key players in this. Sarno and Wright (2013) found that bisexuels experience a microaggression titled *Alien in Own Land* more frequently than their lesbian and gay peers. The *Alien in Own Land* microaggression includes the assumption made by others in the broader society that one is heterosexual. This finding is supported by previous research indicating that bisexual individuals are less likely than gay or lesbian peers to disclose their sexual orientation (Herek, 2009), but that they also have more of a desire and can more easily “pass” as heterosexual (Rust, 1993). To be more specific, Gates (2010) found that over 25% of bisexual-identified individuals do not disclose their orientation to anyone compared to only 4% of gay men and lesbian women. Regardless, this *Alien in Own Land* microaggression experienced on a daily basis can likely aid in identity confusion, which can easily lead to greater orientation-related distress than among lesbian and gay individuals (Lewis et al., 2009).
A study conducted by Callis (2013) found that the negativity around bisexuality not only prevents people from identifying as bisexual, but also discourages them from accepting bisexual identities of others. Due to this lack of acceptance, it is not uncommon for bisexual identified individuals to fluctuate in their self-identity language to match the sex of their partner at a given time, regardless of research supporting that bisexuality is stable in nature (Balsam & Mohr, 2007; Diamond, 2008). The combination of wanting to avoid stigma from coming out as bisexual and this oscillation in self-identification based on the sex of one’s partner reinforces this invisibility of bisexual individuals. Even if one does not self-identify based on the sex of their partner, others may still assume their sexual orientation (McLean, 2008b; Ochs, 1996, 2011). In particular, bisexual individuals who have opposite sex partners are often easily invisible as a sexual minority at all given heterosexuality tends to be the cultural default assumption (Balsam & Mohr, 2007; Ochs, 1996, 2011). Meidlinger and Hope (2014) reinforced the notion that being “out” as a bisexual individual may be a more complex process, possibly requiring explicit disclosure, simply due to society’s assumptions based on the gender of one’s partner, and this may or may not be worth it for the bisexual individual.

Feelings of exclusion and concerns regarding visibility have been reported in both the community-at-large as well as communities where one might not expect: the LGBT community (Bostwick & Hequembourg, 2014; Brownfield & Pollitt, 2017; Lambe et al., 2017). Bisexual-identified individuals have reported difficulties in finding a romantic partner because of their sexual identity (Bradford, 2004; Eliason, 2001). Partly why this might be the case is a combination of negative stereotypes surrounding one’s faithfulness as a partner and/or their “hypersexuality” (Alarie & Gaudet, 2013). The LGBT
community is prone to these stereotypes, too, highlighting that even lesbian women and gay men might have negative attitudes or distrust toward bisexuality (McLean, 2008a). Negative interactions with other sexual minority individuals are particularly harmful for bisexual-identified people since their sense of safety and belonging are often threatened by the very people from whom they would expect support (Mohr & Sarno, 2016). Further, if stereotypes of bisexuality are the reasons for negative interactions, this can contribute to bisexual individuals struggling with internalized homophobia (Mohr & Sarno, 2016). These feelings of rejection tend to be stronger for bisexual women than they are for bisexual men, although they still have negative repercussions for each (Alarie & Gaudet, 2013), one of the most outstanding being silencing their true identities.

Internalized biphobia, defined as the internalized belief that bisexuality is something that one should be ashamed of, is a newer concept in the research domain but it is mirrored in previous research on internalized racism and homophobia (Hoang et al., 2011; Ochs, 1996). There are fewer empirical studies on internalized biphobia, but similar results to internalized homophobia have been found in these preliminary works. More specifically, anxiety, low self-esteem, shame, depression, substance use, and suicidality have all been studied in relation to internalized biphobia (Weber-Gilmore et al., 2011). In addition, Hoang et al. (2011) found that internalized biphobia hindered identity congruence, pride, and acceptance, along with increased infidelity among their sample of 99 bisexual women. Interestingly, the majority of participants were in opposite-sex relationships at the time of the study, and the infidelity occurred with another woman outside of their current opposite-sex relationship, as opposed to the stereotypical assumption that bisexual women inevitably cheat on their same-sex partners.
(Hoang et al., 2011). The authors credited heteronormativity and biphobia for the reason being that most of the participants were in opposite-sex relationships.

**Outness and Self-Esteem**

There are a variety of ways in which self-esteem interacts with one’s sexual orientation identity. On a general level, internalized homophobia/biphobia, conceptualized as negative attitudes and views of the self, can be thought of as a specific form of low self-esteem (Herek et al., 2009). In fact, positive sexual identity was linked to higher self-esteem among sexual minority men and women in a study conducted by Luhtanen (2003). Perhaps if one’s self-esteem is lower for either personality reasons or due to internalized homophobia/biphobia, this will negatively affect one’s outness level. Moreover, sexual orientation victimization generally brought on through the disclosure of one’s sexual orientation, not surprisingly, has been found to lower one’s overall sense of self-esteem (Woodford, Kulick, & Atteberry, 2015). Williams et al. (2017) reviewed a variety of studies assessing the relationship between outness and self-esteem and results showed mixed outcomes; some studies showed higher self-esteem stemming from the concealment of one’s sexual orientation and some studies showed the opposite. It seems then that similar to the reciprocal relationship between self-esteem and psychological distress discussed earlier (Orth et al., 2008; Roberts & Monroe, 1994), the relationship between self-esteem and sexual outness is just as complex in its reciprocity, sometimes positively linked and sometimes negatively linked (Douglass et al., 2017). Given this information, it was pivotal to control for self-esteem in the current study in hopes of obtaining accurate results among the sample.
Outness and Belongingness

Since one’s sexual orientation is not necessarily a readily apparent identity, it can remain unknown, or concealed, if individuals wish. With this, it is up to the sexual minority individual to reveal their sexual orientation to others or not, but recall that recent literature highlights that each option comes with its own ramifications. Bosson, Weaver, and Prewitt-Freilino (2012) discussed some of the difficulties in trying to decide whether or not one should disclose their sexual orientation. Specifically, they talked about how one might feel “damned if they do, damned if they don’t” because if individuals reveal their identity in interpersonal relationships, they might experience threats to their social status including ostracism, rejection, and harassment, and even threats to one’s physical safety. On the contrary, if individuals do not disclose, they will likely be “misclassified” perhaps interfering with their positive identity development and negatively influencing self-esteem, in addition to experiencing mental preoccupation of keeping their identity a secret (Bosson et al., 2012; Pachankis, 2007). Of course, there are also plenty of positive potential aspects to consider as well. On a broader scale, these options are attempting to juggle one’s need to belong and one’s need to be themselves (Baumeister & Leary, 1995; Riggle et al., 2017; Swann & Bosson, 2008). Important to note is that this option to disclose sexual orientation or not does not take away the desire to find an accepting space where one feels as though they belong. An anonymous survey seeking to explore social health among bisexual-identified trainees and psychologists highlighted the need for a stronger bisexual community (Brownfield & Pollitt, 2017). Though this statement is stemming from a reflection on bisexual social health specifically as opposed to a variety
of sexual minority individuals, this anecdotal evidence showcasing a desire for meaningful connection among people corroborates the study’s purpose assessing the importance of belonging.

Further, Tatum (2003) found that those who feel marginalized were more likely to seek a sense of belonging with other individuals who also feel marginalized. This makes sense given the idea that common ground already exists simply due to experiencing a minority status. Tatum’s (2003) research specifically discussed racial minorities, but the concept can be applied to sexual minorities. In fact, Jones et al. (1984) discussed two positive functions that come about due to affiliating with a minority group: to allow stigmatized persons to experience social environments in which they are not stigmatized by others and to provide support for negative evaluations of the stigmatized minority group. Meyer (2003) noted that a shared community might fight against negative impacts of societal stigma by encouraging LGB individuals to compare themselves socially to other members of that same community as opposed to heterosexual individuals. This is line with social evaluation theory’s suggestion that members of stigmatized groups who have a strong sense of community should evaluate themselves against others like them as opposed to members of the dominant culture, ideally making the comparison less psychologically injurious (Pettigrew, 1967). Jackson (2017) reviewed other research indicating that psychosocial well-being of sexually diverse individuals is positively impacted by the support of similar others, reducing the effect of minority stress on health risk.

Attempting to find a sense of community among others who experience similar oppression due to their sexual orientation seems like a promising endeavor to begin
feeling like one belongs somewhere. It seems that some college campus communities are catching on to this notion and offer a gender and sexual minority resource center for students. Moreover, a quick Internet search yielded many results advertising the best colleges and universities for sexual minority individuals. One specific report evaluated a variety of criteria including sexual minority-specific policy inclusion, academic life, campus safety, and recruitment and retention efforts to decipher the rankings of the schools (Best Colleges, 2016). This is not an exhaustive list of evaluated criteria, but it highlights the idea that one’s sense of belonging, or at the very least feeling welcome, is strongly related to one’s overall functioning.

Intersecting identities can make one’s perceived sense of belonging increasingly challenging due to intragroup marginalization. For example, sexual minority individuals who also identify as a racial minority can experience distress surrounding where to “belong.” There is ample research supporting the notion that that sexual minority individuals of color experience homophobia among the communities of color (Griffin, 2001; hooks, 2001). This is in addition to the homophobia, and possible racism, found in mainstream society. What is additionally challenging, is that the LGBT community is predominantly White, so racial minorities might not feel a sense of belonging here either. In fact, Flores, Mansergh, Marks, Guzman, and Colfax (2009) found that gay and bisexual men of color experienced negative impacts on their self-esteem and self-worth due to racial discrimination among White LGBT communities. Noteworthy, these findings do not appear to be the same for lesbian and bisexual women of color. Lehavot, Balsam, and Ibrahim-Wells (2009) found that racially diverse lesbians and bisexual
women viewed the LGBT community to be an important and vital part of their well-being due to the social connections they can make.

Generally speaking, sexual minority communities can provide a point of information, resources, activism, socialization, and support for identity development, in addition to buffering against the impact of discrimination for sexually diverse individuals (Balsam & Mohr, 2007; Harper, Serrano, Bruce, & Bauermeister, 2016). To illustrate the importance of these communities, a qualitative review of an email discussion board occurring through a listserv hosted by Division 44 of APA after the 2016 Orlando shooting highlighted the desire for a sense of community and connectedness after an act of terrorism toward the LGBT community (Jackson, 2017). Other themes emerging from the content review included the need for action to avoid future hate crimes, self-care and coping strategies, and feelings of gratitude for the online forum (Jackson, 2017). It seems that a sense of belonging can even be found through an electronic server, positively influencing individual’s psychological experience.

**Summary**

In this chapter, Minority Stress Theory (Meyer, 2003) was outlined and the discussion highlighted that this theory is an appropriate guide for the current study given its emphasis on psychological distress as a unique experience for sexual minority individuals. A thorough review of each construct of interest (belongingness, psychological distress, ethnicity, SES, self-esteem, and sexual orientation outness) occurred independently, as well as a discussion of the documented relationships among the variables. A variety of common measures used to assess the variables of interest in a
quantitative fashion were also noted. The discussion above also reviewed some important comparisons of psychological distress depending on one’s sexual orientation.

Clearly, there are ample studies investigating different aspects of each construct in addition to how they are related as demonstrated through the review of the literature, but what is of primary interest for the current study is the relationship each construct has with psychological distress, especially within the sexual minority population. It is well-documented that lesbian, gay, and bisexual individuals experience greater psychological distress than their heterosexual counterparts, but more research is needed to better understand possible explanations for this and begin exploring protective factors for these individuals.
CHAPTER III

METHODOLOGY

It has been shown in the research literature that numerous variables, including ethnicity (Cokley et al., 2017; Gonzalez et al., 2010; James et al., 2017; Young et al., 2010), socioeconomic status (SES; Hasin et al., 2005; James et al., 2017; Jury et al., 2017; Myer et al., 2008), self-esteem (Douglass et al., 2017; Harris, 2010; Jibeen, 2017; Orth et al., 2008; Sowislo & Orth, 2013), outness level (Legate et al., 2012; Riggle et al., 2017; Williams et al., 2017), and belongingness (Bailey & McLaren, 2005; Campos & Kim, 2017; Pietromonaco & Collins, 2017) are related to psychological distress. There is limited information on how all of these variables relate to psychological distress when researched simultaneously. Similarly, there is a gap in the literature assessing the role belongingness plays in psychological distress once other variables have already been accounted for statistically. Not only is this type of research lacking in the psychological literature for the overall population, but it is especially lacking for the population who identifies as non-heterosexual.

Therefore, the purpose of this study was to investigate the role belongingness played in psychological distress among lesbian, gay, and bisexual individuals after already accounting for sexual orientation, ethnicity, SES, self-esteem and outness level through a hierarchical regression analysis. The relationships all of these variables have with psychological distress were also assessed through the hierarchical regression, along with a potential sexual orientation moderating effect on the relationship between
belongingness and psychological distress. The specific research design, questions, hypotheses, and procedures that were used in the current study are reviewed in detail below. Information regarding the participants sampled along with the instrumentation used can also be found in this chapter.

**Research Design and Overview of Methods**

Given the study’s goal, the design was nonexperimental and cross-sectional with data collected via survey methods using nonprobability and convenience sampling and self-report measures. Quantitative methods were employed since the overarching research purpose was to better understand how much more, if any, variance in psychological distress can be accounted for by perceived belongingness among lesbian, gay, and bisexual individuals after already accounting for sexual orientation, ethnicity, SES, self-esteem, and outness levels. The independent variables included self-esteem, outness level, and perceived belongingness. Demographic variables that were controlled for included sexual orientation, ethnicity, and SES. The dependent variable was psychological distress. Web-based survey methods were used through the research platform Qualtrics (2016), as electronic surveys tend to be a cost-effective way in which to reach a large number of potential participants as well as assist in data collection and data entry (Groves et al., 2009).

**Participants and Sample Size**

Participants in this study had to be (a) 18 years or older; (b) an undergraduate or graduate student; and (c) self-identify as lesbian, gay, or bisexual. I recognize that there are a variety of other sexual minority terms with which one may identify (e.g., dyke, pansexual, queer, questioning). Lesbian, gay, and bisexual were the identifiers
specifically used in this research for convenient data analysis purposes. This was clearly mentioned in the study advertisement as well as the informed consent document. All participants must have openly identified as one of these three sexual minority statuses in hopes of eliminating unwanted exposure due to participation in the study. Participants were found through various email listservs and college/university sexual minority resource center advertisements described in the Procedure section.

An a priori sample size calculation and power analysis was conducted using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) in an effort to find the necessary sample size needed in order to be able to find statistical significance, if present, when conducting a hierarchical regression. This calculation noted that at least 114 participants with complete surveys would have to be obtained prior to analysis. This sample size was calculated using parameters that were set with a medium effect size of Cohen’s $f^2 = .15$, $\alpha = .05$, and power $(1 - \beta) = .80$, and nine total explanatory variables. To account for incomplete surveys among individuals, I waited to begin data analysis until at least 140 participants had started the survey.

Though 140 people started the survey, 132 (94%) complete surveys were used in the regression analysis. This is still 18 surveys above the required minimum to find statistical significance, if present. It appeared that people opted out of the survey at various points, making no data available for the scales following that point. The sample demographics reported below in Table 1 include information for 132 participants, all of whom are students from colleges or universities across the United States and self-identify as lesbian, gay, or bisexual. As can be seen, the majority of the sample identified as Caucasian/Non-Hispanic (70.5%), and as a cis-gender man (34.1%) or cis-gender woman
The specific sexual orientation identifications found among the sample included 27.3% gay participants, 31.1% lesbian participants, and 41.7% bisexual participants. The majority of participants were between 18 and 24 years old (64.4%) with an additional 22% of the sample stating they were between 25 and 29 years old. Over half of the sample (54.4%) reported being a current undergraduate student and 34.8% of participants stated they were enrolled in a doctoral program, resulting in 10.6% of the sample coming from Master’s programs. Table 1 shows a wide range in reported annual household incomes, with the most commonly claimed income category was between $15,000 and <$25,000 (28%).
Table 1

Summary of Demographic Variables

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>N</th>
<th>% of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-20</td>
<td>41</td>
<td>31.1</td>
</tr>
<tr>
<td>21-24</td>
<td>44</td>
<td>33.3</td>
</tr>
<tr>
<td>25-29</td>
<td>29</td>
<td>22.0</td>
</tr>
<tr>
<td>30-34</td>
<td>11</td>
<td>8.3</td>
</tr>
<tr>
<td>35 or older</td>
<td>7</td>
<td>5.3</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cisgender man</td>
<td>45</td>
<td>34.1</td>
</tr>
<tr>
<td>Cisgender woman</td>
<td>74</td>
<td>56.1</td>
</tr>
<tr>
<td>Genderqueer/genderfluid</td>
<td>8</td>
<td>6.1</td>
</tr>
<tr>
<td>Transgender</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>Agender</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Sexual Orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gay</td>
<td>36</td>
<td>27.3</td>
</tr>
<tr>
<td>Lesbian</td>
<td>41</td>
<td>31.1</td>
</tr>
<tr>
<td>Bisexual</td>
<td>55</td>
<td>41.7</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/Non-Hispanic</td>
<td>93</td>
<td>70.5</td>
</tr>
<tr>
<td>African American/Black</td>
<td>6</td>
<td>4.5</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Latino/a or Hispanic</td>
<td>14</td>
<td>10.6</td>
</tr>
<tr>
<td>Asian</td>
<td>10</td>
<td>7.6</td>
</tr>
<tr>
<td>Multi-racial/multi-ethnic</td>
<td>8</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate student</td>
<td>72</td>
<td>54.5</td>
</tr>
<tr>
<td>Master’s degree student</td>
<td>14</td>
<td>10.6</td>
</tr>
<tr>
<td>Doctoral student</td>
<td>46</td>
<td>34.8</td>
</tr>
<tr>
<td><strong>Annual Household Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $15,000</td>
<td>19</td>
<td>14.4</td>
</tr>
<tr>
<td>$15,000 to &lt;$25,000</td>
<td>37</td>
<td>28.0</td>
</tr>
<tr>
<td>$25,000 to &lt;$50,000</td>
<td>23</td>
<td>17.4</td>
</tr>
<tr>
<td>$50,000 to &lt;$75,000</td>
<td>14</td>
<td>10.6</td>
</tr>
<tr>
<td>$75,000 to &lt;$100,000</td>
<td>12</td>
<td>9.1</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>27</td>
<td>20.5</td>
</tr>
</tbody>
</table>

*Note.* N = 132.
In addition to Table 1 above, 127 of the 132 participants reported their residential status (see Appendix A). The most commonly represented states included: Massachusetts (15.7%), New York (15.7%), Texas (8.7%), Illinois (8.7%), and California (7.9%).

**Instrumentation**

The online survey consisted of the Nebraska Outness Scale (Meidlinger & Hope, 2014), the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the General Belongingness Scale (Malone, 2011; Malone et al., 2012), the Hopkins Symptom Checklist-21 (Green et al., 1988), and a demographic questionnaire for a total of five sections (60 items) requiring about 10 minutes to complete.

**Nebraska Outness Scale.** The Nebraska Outness Scale (NOS; Meidlinger & Hope, 2014) was used in the current study to operationalize participants’ level of outness, or openness, about their sexual orientation (see Appendix B). The NOS is a 10-item measure comprised of two subscales, disclosure (NOS-D) and concealment (NOS-C), each containing five statements. The subscales were created because during the development of the NOS, the authors found disclosure and concealment to be related but independent constructs regarding one’s level of outness (Meidlinger & Hope, 2014). In the NOS, participants are asked about what percent of people in a certain group (e.g., members of immediate family, people at work/school) are aware of their sexual orientation (NOS-D), and how often they avoid talking about topics related to their sexual orientation when interacting with members of certain groups (e.g., members of immediate family, people at work/school; NOS-C). Participants respond to all NOS items on an 11-point Likert-type scale ranging from “0% - None” to “100% - All” for the NOS-D, and from “0 - Never avoid” to “10 – Always avoid” for the NOS-C. To calculate an overall
outness score, items on the NOS-C are reverse-coded, and then these new NOS-C scores
along with the NOS-D scores are averaged. Possible scores for the full NOS range from 0
to 11 with higher scores indicating greater levels of outness.

The psychometric properties for the NOS found by Meidlinger and Hope (2014)
demonstrated it to be an excellent choice for operationalizing outness level. Specifically,
the authors found internal consistency reliability estimates ranging from $\alpha = .87$ to .92
across genders and sexual orientations for scores on the full-scale NOS and a strong
positive correlation ($r = .84$) with a more commonly used outness measure, the Outness
Inventory (OI; Mohr & Fassinger, 2000). Since the creation of the NOS was guided by
the construction of the OI and other, newer research (Meidlinger & Hope, 2014), the
NOS seemed to be the appropriate choice to assess outness for this study. The
Cronbach’s $\alpha$ for this study’s sample was $\alpha = .79$.

**Rosenberg Self-Esteem Scale.** The Rosenberg Self-Esteem Scale (RSES;
Rosenberg, 1965) was the measure used in the current study to operationalize overall
subjective self-esteem (see Appendix C). The RSES is a 10-item self-report questionnaire
assessing overall feelings of self-worth; it has become the most widely-used measure of
global self-esteem (Blascovich & Tomaka, 1991; Grilo et al., 2009). Five negatively-
worded statements (e.g., “I feel I do not have much to be proud of”) and five-positively
worded statements (e.g., “I take a positive attitude toward myself”) about oneself
comprise the RSES. Participants respond to the questions on a 4-point Likert-type scale
with responses ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Items are then
summed to obtain a total score after reverse-coding the negatively-worded statements. Total RSES scores range from 10 to 40; higher scores indicate greater levels of self-esteem.

The RSES was used in the current study to assess participants’ self-esteem given the consistently strong reliability on scores across a variety of populations (e.g., Balsam & Mohr, 2007; Barr et al., 2016; Chao et al., 2014; Kidd & Shahar, 2008; Lambe et al., 2017) and languages (Schmitt & Allik, 2005). Impressive internal consistency (α = .92) was also found through a pilot test on a sample of 65 lesbian, gay, and bisexual community members (Haug et al., 2016). Validity evidence for the RSES has been documented through strong correlations in the predicted ways with other self-esteem measures (Demo, 1985; Rosenberg, 1979) and depression, anxiety, and psychosomatic distress measures (Wylie, 1989). The flexibility of the RSES and the corresponding support for its use across the decades made it an ideal choice for assessing self-esteem. Cronbach’s alpha for this study’s sample was α = .91.

**General Belongingness Scale.** The General Belongingness Scale (GBS; Malone, 2011; Malone et al., 2012) was used in the current study to operationalize participants’ sense of belonging, or their perceived belongingness (see Appendix D). The GBS is a 12-item measure that assesses a sense of general belongingness capitalizing on the distinctness of belongingness among a variety of related, yet different constructs. The 12 items (e.g., “I feel connected with others” and “I have close bonds with family and friends”) were built to assess belongingness in three domains including personal, societal, and general areas. The items are rated on a seven-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Six statements need to be reverse-coded before
summing all of the scores together to find a general sense of belonging score. Total scores can range from 12 to 84 with higher summed scores indicating a greater general sense of belonging.

A reliability coefficient of $\alpha = .94$ was found for a study assessing Facebook use and well-being in 653 participants (Moore, 2014) which was in line with the scale construction findings ($\alpha = .92$ to .95; Malone, 2011; Malone et al., 2012). Moreover, a pilot test of the GBS on a sample of 65 lesbian, gay, and bisexual community members highlighted impressive internal consistency within the sample ($\alpha = .95$; Haug et al., 2016). Evidence of convergent validity with other belongingness measures (SOBI-P; $r = -.86$; Malone, 2011; Malone et al., 2012) has also been documented in the literature. Due to these findings, the GBS was designated as an adequate measure for assessing participants’ general feelings of belongingness in the current study. The Cronbach’s reliability estimate for this study’s sample was $\alpha = .93$.

**Hopkins Symptom Checklist-21.** The Hopkins Symptom Checklist-21 (HSCL-21; Green et al., 1988) is a 21-item self-report questionnaire that is used to assess overall psychological distress (see Appendix E). Participants use a 4-point Likert-type scale ranging from 1 (not at all) to 4 (a lot) to indicate the extent to which various symptoms of distress (e.g., “Feeling lonely” and “Pain in the lower part of your back”) were bothersome within the past seven days. All 21 responses are averaged to find an overall psychological distress score ranging from 1 to 4, with higher scores indicating greater psychological distress.

The HSCL-21 was used in the current study to assess psychological distress among participants because scores from the measure have demonstrated strong reliability
throughout its construction (KR20 = .90; Green et al., 1988), and in its later use with a variety of samples including Asian American sexual minorities (α = .93; Szymanski & Sung, 2010) and Latina/o sexual minorities (α = .93; Velez et al., 2015). Further, the HSCL-21 has demonstrated evidence of validity through factor analysis with a variety of ethnic minority populations (Cepeda-Benito & Gleaves, 2000) and through strong correlations with other anxiety measures (Deane et al., 1992). Given this information, the HSCL-21 was deemed an adequate measure for assessing participants’ psychological distress. The Cronbach’s reliability estimate for this study’s sample was α = .90.

**Demographic questionnaire.** The demographic questionnaire was a seven-item questionnaire developed for the current study that asked participants about their age, gender, sexual orientation, ethnicity, education level, annual household income, and state of residence (see Appendix F). Some items were open-ended, and some items were forced-choice responses including the question asking about sexual orientation. Participants were provided the definitions of “gay,” “lesbian,” and “bisexual” used for the current study and they self-identified their sexual orientation after having read these options.

**Procedure**

Prior to any recruitment efforts or collecting any data, permission was granted by the University of Northern Colorado Institutional Review Board (IRB). Once the study was granted approval (see Appendix G), the study participants were recruited through a variety of means. APA standards on quantitative research highlight the importance of noting the recruitment timeframe (Appelbaum et al., 2018). Recruitment efforts and data collection for the current study started on January 26, 2017 and ended on March 2, 2017.
First, I advertised the current study on a variety of email listservs (see Appendix H) such as APA Divisions 17 (Society of Counseling Psychology), 35 Section IV (Society for the Psychology of Women: Lesbian, Bisexual, and Transgender Concerns), and 44 (Society for the Psychological Study of Lesbian, Gay, Bisexual, and Transgender Issues).

Secondly, I contacted college/university sexual minority resource centers in which I already have established relationships (i.e., College of St. Benedict, Colorado State University, University of Colorado – Boulder) asking for their assistance in disseminating the call for research participants (see Appendix I).

Additionally, I contacted another 40 college/university sexual minority resource centers not already accounted for above, asking for their help in advertising the call for participants. Twenty of these institutions came from the first 20 colleges listed on the “Best Liberal Arts Colleges in America” ranking list (Niche.com Inc, 2017a) and the other 20 institutions came from the first 20 universities listed on the “Top Public Universities in America” ranking list (Niche.com Inc, 2017b). See Appendix J for the full list of contacted colleges and universities. Both recruitment advertisements contained a brief description of the study’s purpose and procedures, eligibility criteria, and the URL link which took the prospective participants to an online informed consent document (see Appendix K) and survey powered by Qualtrics (2016). Given the sampling technique employed, there was no way to calculate a response rate given it is impossible to know how many eligible participants saw the advertisement.

Participants who chose to participate in the study clicked on the link to the questionnaire within the advertisement or typed the URL into their web browser. The
URL took participants to an online consent form describing the purpose of the study and anonymity and confidentiality procedures, ideally enhancing the likelihood of honest answers, as well as providing my and my research advisor’s contact information in case the participants had any questions. Anonymity was held given I did not collect any personally identifying information including IP addresses from the computers on which the participants completed the survey. As can be seen, participants were asked to provide some demographic information, but this information was not used in any way to identify the participants.

Participants were reminded that participation was voluntary and that they could stop their participation at any point. They were encouraged to complete the survey in full given there was a chance to win one of four $25 Darden restaurants (e.g., Red Lobster, Olive Garden) gift cards. If interested, participants had the option to enter their email address in a separate survey at the end of the research survey for a chance to win. Emails remained confidential, only accessible by me for the purposes of selecting raffle winners.

Participants read the informed consent information, agreed to participate by clicking the next button “>>,” and then were directed to the survey. Specifically, participants confirmed their eligibility to participate in the study by answering three separate screening questions about age, student status, and sexual orientation (see Appendix L). If the participant answered “yes” to all three questions, they then completed the questionnaires described above in the Instrumentation section. If the participant answered “no” to one or more of the three screening questions, they were re-directed to a “Thank you” page explaining their ineligibility to participate in the study (see Appendix M). Permission to use the NOS, GBS, and HSCL-21 in the current research study was
granted by the creators (see Appendices N-P, respectively). Original author permission was unavailable for the RSES (Rosenberg, 1965), but this measure has been used in the psychological literature for over 50 years. Moreover, recent research with sexual minorities has transferred the original paper format of the RSES successfully into a web-based format utilizing Qualtrics (Barr et al., 2016; S. Budge, personal communication, September 7, 2016; see Appendix Q). Further, the APA PsycTests database specifies that the measure was published for public use for research purposes (see Appendix R).

A final “Thank you” page displayed at the end of the survey also advertised relevant mental health resources (see Appendix S) if participants felt they needed to utilize such services after participating in the study. The complete questionnaire was estimated to take approximately 10 minutes, and this turned out to be an adequate estimate given the logged completion time displayed by Qualtrics averaged a little longer than 10 minutes. A small pilot test of the Qualtrics survey was completed prior to launching it for public use to fix any glitches that may have hindered participants’ survey completion.

Upon recruitment completion, the survey data were downloaded from Qualtrics (2016) into a password-protected Excel file on my flash drive only available to me. The data were then uploaded into a statistical software package, SPSS Version 23.0 (IBM Corp., 2015), cleaned, organized, and reverse-coded as necessary. For surveys to be included in the analyses, all items must have been answered; this was ensured by removing surveys that had any missing data points as assessed through data compilation in Qualtrics (2016) from the data analysis process. The one exception to this rule was a survey that had every item answered aside from one item on the GBS. Analyses showed
that there was a minimal effect in the *mean* and *standard deviation* scores of GBS items by keeping this survey in the analysis; specifically, the *mean* increased by .01 and the *standard deviation* decreased by .05. Therefore, this survey was deemed acceptable to keep in the analysis.

Email addresses of those participants who opted to enter into the random prize drawing were exported into a separate Excel file. I randomly selected four winners and contacted them via email to notify them of how they could access their prize. All of these email addresses were deleted as soon as I heard back from the four raffle winners confirming they were able to access their prize. Other than notifying the four raffle winners, I did not have direct contact with any participants at any time during the study.

**Data Analysis and Hypotheses**

SPSS 23.0 (IBM Corp., 2015) was used to conduct all analyses for the study. Appropriate descriptive statistical analyses were run prior to running any analyses used to answer the research questions. Preliminary psychometric analyses were conducted regarding the reliability (Cronbach’s *alpha*) and validity (Pearson correlations) of the measures within the current sample. Descriptive statistics were also conducted for responses to the measures (e.g., means, standard deviations, ranges, outliers) and for the demographic variables.

Prior to running the hierarchical regression, I ensured that the four assumptions of multiple regression were met. First, I assessed skewness and kurtosis to see if the residuals in the model were normally distributed. Ideally, skewness and kurtosis are 0 in a perfectly normal distribution but are often considered reasonable with values between
– 1.0 and 1.0. Skewness and kurtosis values in the current study ranged between -.42 and .07, therefore suggesting a relatively normal distribution. To further assess if the residuals were normally distributed, I did a visual inspection of a residual histogram paired with a normal bell curve. A visual inspection of a residual histogram highlighted a relatively normal distribution which indicated that the regression assumption of normality of the residuals had been met.

The assumptions of linearity (the postulation that there is a linear relationship between the explanatory variables and the dependent variable) and homoscedasticity (the notion that the variability of the residuals of the independent variables is the same across all values of the independent variables) were analyzed by a visual assessment of a residual scatterplot (Pedhazur, 1997; Tabachnick & Fidell, 2013). No residual pattern was found in the scatterplot, thus suggesting that the assumptions of linearity and homoscedasticity were met. Additionally, no discernable pattern in the residual scatterplot suggested that no relevant variables were left out of the regression model.

Internal consistency scores for all four measures were calculated to assess the extent to which variables were measured without error. Scores on all four measures demonstrated acceptable internal consistency ($\alpha \geq .79$) among the current study’s sample indicating that the variables were measured without excessive error.

In addition to testing these assumptions, I assessed the independence of variables by looking at the variance inflation factor (VIF) since an absence of collinearity among the independent variables is desirable in regression analyses. A VIF higher than 4 demonstrates the presence of multicollinearity among the explanatory variables (O’Brien, 2007), which means there is substantial collinearity between two or more of the
explanatory variables. VIF values ranged from 1.04 to 1.74. With all VIF values this low, multicollinearity was not deemed a concern. I also checked the data for any outliers and determined that there were no data points that seemed to be substantially influencing the overall data.

Given that all of the above assumptions were found to be met, and additional data checks verified the apparent cleanliness of the data, the hierarchical regression was run with the data as they were. The following research questions and hypotheses were developed to help best understand the gathered data and to support the study’s purpose.

Q1 Do sexual orientation, ethnicity, and SES explain psychological distress among lesbian, gay, and bisexual individuals?

H1 Bisexual individuals were expected to report greater levels of psychological distress than lesbian or gay individuals after controlling for ethnicity and SES.

H2 Lesbian, gay, and bisexual individuals of color were expected to report greater levels of psychological distress than individuals identifying as Caucasian/Non-Hispanic after controlling for sexual orientation and SES.

H3 As annual income decreased among lesbian, gay, and bisexual individuals, psychological distress was expected to increase, after controlling for sexual orientation and ethnicity.

Q2 Do outness level and self-esteem explain psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation, ethnicity, and SES?

H4 As outness level increased among lesbian, gay, and bisexual individuals, psychological distress was expected to decrease, after controlling for sexual orientation, ethnicity, SES, and self-esteem.

H5 As self-esteem increased among lesbian, gay, and bisexual individuals, psychological distress was expected to decrease, after controlling for sexual orientation, ethnicity, SES, and outness level.

Q3 Does perceived belongingness help to explain psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation, ethnicity, SES, outness level, and self-esteem?
H6  Perceived belongingness was expected to aid in explaining psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation, ethnicity, SES, outness level, and self-esteem. Specifically, perceived belongingness was expected to be negatively related to psychological distress.

Q4 Is the relationship between perceived belongingness and psychological distress moderated by sexual orientation among lesbian, gay, and bisexual individuals?

H7 Sexual orientation was expected to moderate the relationship between perceived belongingness and psychological distress among lesbian, gay, and bisexual individuals. Specifically, it was hypothesized that among those reporting higher levels of perceived belongingness, there would be no difference in psychological distress based on sexual orientation. Conversely, it was hypothesized that among those reporting lower levels of perceived belongingness, there would be differences in psychological distress based on sexual orientation with bisexual individuals reporting higher psychological distress than either gay or lesbian individuals.

All of the research questions were answered through the use of one hierarchical regression. Hierarchical regression was used to evaluate the relationship between the independent variables and the dependent variable after controlling for the effect one or more other independent variables had on the dependent variable (Pedhazur, 1997). The regression model consisted of four steps, and the order in which the nine explanatory variables were entered into the analysis was based on logical and theoretical reasons. First, the demographic variables of sexual orientation, ethnicity, and SES (Q1) were entered into the model in hopes of verifying the relationship between these explanatory variables and psychological distress, as shown in previous research, in the given sample. Categorical variables (i.e., sexual orientation and ethnicity) were dummy coded prior to their inclusion in the regression analysis (Pedhazur, 1997). Ethnicity was dummy coded into Caucasian (coded as “1”) and non-Caucasian (coded as “0”) groups due to a low number of participants identifying as non-Caucasian. With ethnicity separated in this
manner, 93 participants (70.5%) identified as Caucasian and 39 participants (29.6%) identified as non-Caucasian. Bisexual individuals were used as the reference group in the model, so they were *dummy* coded into “0” as the reference group. Gay and lesbian individuals were both *dummy* coded into “1” indicating that their sexual orientation was different from bisexual, but gay and lesbian were used as distinct categories for the sake of the regression analysis. Therefore, three different sexual orientation groups were formed. SES was treated as a continuous variable in the regression analysis to save degrees of freedom even though SES was an ordinal variable based on participants’ selecting an income category on the demographic questionnaire.

Second, outness level and self-esteem (Q2) were added to the model due to previously found associations these variables have with psychological distress in the literature. Next, belongingness (Q3) was added to the model since it was ultimately the variable of interest and I wished to see if belongingness could account for additional variance in psychological distress after all of the other variables were added to the model.

Product variables of gay*belongingness and lesbian*belongingness were created in SPSS to aid in the assessment of a potential moderating effect of sexual orientation on the relationship between perceived belongingness and psychological distress (Q4; Pedhazur, 1997). Since bisexual-identified individuals were *dummy* coded as the reference group (“0”) in SPSS, only two product variables (gay*belongingness and lesbian*belongingness) had to be created for the purposes of the regression analysis. These interaction terms were entered into the regression analysis last to see if any interaction effects were found.
The $R^2$ and $R^2$ Change statistics were used to assess overall variance and any
additional variance accounted for as the independent variables were added to the model
in the steps, and part $r^2$ coefficients were examined to see how much unique variance
each variable accounted for in the dependent variable at each step. Beta coefficients were
noted in terms of direction and strength of the relationship between each independent
variable and the dependent variable in the model. Further, the $F$ statistic was used to test
statistical significance of the $R^2$ among the independent and dependent variables, as well
as the change in $R^2$ at each step as variables were added to the model. Given an alpha
level of .05 is commonly used in psychology research (Tabachnick & Fidell, 2013), a
significance level of $p < .05$ was used to determine statistical significance of the first
three analyses. Because product variables constitute a higher order term and the power
within tests of product variables is inherently low (Aiken & West, 1991), an alpha level
of .10 was used only for Q4.

**Summary**

This study was a nonexperimental, quantitative design utilizing self-report
surveys including the Nebraska Outness Scale (NOS; Meidlinger & Hope, 2014), the
Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), General Belongingness Scale
(GBS; Malone, 2011; Malone et al., 2012), and the Hopkins Symptom Checklist – 21
(HSCL-21; Green et al., 1988). The primary purpose of this study, guided by Minority
Stress Theory (Meyer, 2003), was to investigate the role that belongingness played in
psychological distress among lesbian, gay, and bisexual individuals after accounting for
sexual orientation, ethnicity, SES, self-esteem, and outness level through a hierarchical
regression analysis. Other goals for the study included investigating the relationship each
of these variables has with psychological distress, along with assessing a potential moderating effect between belongingness and psychological distress depending on one’s sexual orientation. A review of the selected measures and recruitment strategies were discussed in this chapter, and information regarding the sample’s demographic information was presented. Pertinent information regarding the statistical analyses that were employed to answer the research questions was also highlighted.
CHAPTER IV

RESULTS

This nonexperimental study was designed to assess the role of multiple variables on psychological distress among a sample of lesbian, gay, and bisexual university students, with special attention paid to the role of perceived belongingness. Results of the study are outlined in this chapter. Information about the scales used and the hierarchical regression analysis implemented to answer the four research questions can also be found in this chapter. Detailed information about participant demographics can be found in the previous chapter, Chapter III.

Descriptive Statistics and Preliminary Analysis

Various statistics, including mean, standard deviation, range, skewness, kurtosis, and Cronbach’s alpha ($\alpha$), for all included scales used in the current study can be found in Table 2 below. Scores on all four measures demonstrated acceptable internal consistency ($\alpha \geq .79$) among the current study’s sample and were above the recommended cutoff of .70 when using measures for research purposes (Dimitrov, 2012). These Cronbach’s alpha levels for the measures also indicate that the variables were measured without excessive error.
Table 2

Summary of the Nebraska Outness Scale, the Rosenberg Self-Esteem Scale, the General Belongingness Scale, and the Hopkins Symptom Checklist – 21

<table>
<thead>
<tr>
<th></th>
<th>NOS</th>
<th>RSES</th>
<th>GBS</th>
<th>HSCL – 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (SD)</td>
<td>6.21 (1.91)</td>
<td>29.89 (5.64)</td>
<td>57.23 (13.70)</td>
<td>1.91 (.51)</td>
</tr>
<tr>
<td>Range</td>
<td>1.40-10.40</td>
<td>14-40</td>
<td>15-84</td>
<td>1.00-3.38</td>
</tr>
<tr>
<td>Skewness</td>
<td>-.23</td>
<td>-.28</td>
<td>-.21</td>
<td>.63</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-.22</td>
<td>-.22</td>
<td>-.42</td>
<td>.07</td>
</tr>
<tr>
<td>α</td>
<td>.79</td>
<td>.91</td>
<td>.93</td>
<td>.90</td>
</tr>
</tbody>
</table>

Note. N = 132. HSCL-21 = Hopkins Symptom Checklist – 21, NOS = Nebraska Outness Scale, RSES = Rosenberg Self-Esteem Scale, GBS = General Belongingness Scale

Assumptions

Prior to running the regression, the assumptions of multiple linear regression analyses were checked with the current data to ensure that the results could be interpreted with confidence. Skewness and kurtosis values were used to assist in testing the assumption of normality of the residuals. As can be seen in Table 2 above, though not relevant to the regression normality assumption, skewness values for the observed data ranged from -.28 (self-esteem) to .63 (psychological distress). Kurtosis values ranged from -.42 (belongingness) to .07 (psychological distress). A visual inspection of a residual histogram supported these values, highlighting a relatively normal distribution which indicated that the regression assumption of normality of the residuals was met.

A visual inspection of a residual scatterplot was examined to test for the assumptions of homoscedasticity and linearity. Given there was no residual pattern found in the scatterplot, the assumptions of homoscedasticity and linearity appeared to be met and the lack of discernable pattern in the scatterplot also suggested no important variables were left out of the model.
Additionally, the multicollinearity of the independent variables in the model was assessed by VIF values. VIF values ranged from 1.04 (socioeconomic status (SES)) to 1.74 (belongingness). With all VIF values this low, there did not appear to be any substantial impact of any explanatory variable on the variance of other variables, indicating no serious multicollinearity (O’Brien, 2007).

Further, correlations between psychological distress, outness, self-esteem, and belongingness were computed (see Table 3). The HSCL-21 was significantly negatively correlated with the NOS \((r = -0.165, p = 0.029)\), RSES \((r = -0.632, p < 0.001)\), and GBS \((r = -0.585, p < 0.001)\). The NOS was significantly positively correlated with the RSES \((r = 0.173, p = 0.024)\) and GBS \((r = 0.267, p = 0.001)\). Lastly, the RSES was significantly positively correlated with the GBS \((r = 0.602, p < 0.001)\).

**Table 3**

*Pearson correlations between the Hopkins Symptom Checklist – 21, Nebraska Outness Scale, Rosenberg Self-Esteem Scale, and the General Belongingness Scale*

<table>
<thead>
<tr>
<th></th>
<th>HSCL-21</th>
<th>NOS</th>
<th>RSES</th>
<th>GBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSCL-21</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOS</td>
<td>-0.165*</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSES</td>
<td>-0.632**</td>
<td>0.173*</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>GBS</td>
<td>-0.585**</td>
<td>0.267**</td>
<td>0.602**</td>
<td>—</td>
</tr>
</tbody>
</table>

*Note. N = 132. *p < .05; **p < .01; HSCL-21 = Hopkins Symptom Checklist – 21, NOS = Nebraska Outness Scale, RSES = Rosenberg Self-Esteem Scale, GBS = General Belongingness Scale*

**Hierarchical Regression Analysis**

Multiple regression analyses are useful when there are several explanatory variables of interest and when those explanatory variables are correlated with the
dependent variable to some extent (Tabachnick & Fidell, 2013); therefore, multiple regression analysis, specifically one four-step hierarchical multiple regression analysis, was used to assess the explanatory power of various demographic (i.e., sexual orientation, ethnicity, and SES) and psychological (i.e., outness level, self-esteem, and perceived belongingness) constructs on psychological distress among the sample of self-identified lesbian, gay, and bisexual individuals. The four steps of the analysis corresponded to the four research questions in the current study, and each is reviewed in turn below. The demographic constructs of sexual orientation, ethnicity, and SES were entered in Step 1 of the regression model. Remember that categorical variables (i.e., sexual orientation and ethnicity) were dummy coded prior to being entered into the regression analysis so they could be entered in Step 1 as vectors, and SES was treated as a continuous variable in the regression analysis to save degrees of freedom even though SES was an ordinal variable based on participants’ selecting an income category on the demographic questionnaire. Outness level and self-esteem were entered in Step 2, with belongingness added to the model by itself in Step 3 of the regression. Lastly, a potential moderating effect of sexual orientation on the relationship between perceived belongingness and psychological distress was tested in Step 4. This hierarchical regression analysis allowed me to assess which explanatory variables were statistically significant in explaining some variance in psychological distress overall, and it allowed me to see how much psychological distress was uniquely explained by the various explanatory variables through the steps of the regression. I used statistical significance of \( p < .05 \) to determine if each of the first three steps of the hierarchical regression, corresponding to their own research questions, were statistically significant. A significance level of \( p < .10 \) was used for statistical
significance for Step 4 of the hierarchical regression due to low power generally found in testing product variables (Aiken & West, 1991).

Research Question One

Research question one assessed the previously supported relationships between various demographic variables and psychological distress in the current study. Namely, research question one tested whether sexual orientation, ethnicity, and SES significantly account for variance in psychological distress among the current sample of lesbian, gay, and bisexual individuals. Results presented in Step 1 of Table 4 below show that the findings did not support this notion since $R^2 = .038 \ (p = .285)$; this indicates that only 3.8% of the variance in psychological distress was accounted for by sexual orientation, ethnicity, and SES combined. To break down research question one further, three specific hypotheses about the individual demographic variables were also tested.
Table 4

Hierarchical Regression Results for Model Explaining Sexual Orientation, Ethnicity, Socioeconomic Status (SES), Outness Level, Self-Esteem, and General Belongingness

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$B$</th>
<th>SE $B$</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.038</td>
<td>.038</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gay</td>
<td></td>
<td></td>
<td>-.059</td>
<td>.109</td>
<td>-.052</td>
</tr>
<tr>
<td>Lesbian</td>
<td></td>
<td></td>
<td>.046</td>
<td>.105</td>
<td>.042</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td>-.003</td>
<td>.100</td>
<td>-.003</td>
</tr>
<tr>
<td>SES</td>
<td></td>
<td></td>
<td>-.052</td>
<td>.026</td>
<td>-.181*</td>
</tr>
<tr>
<td>Step 2</td>
<td>.431</td>
<td>.392**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outness</td>
<td></td>
<td></td>
<td>-.013</td>
<td>.019</td>
<td>-.051</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td></td>
<td></td>
<td>-.056</td>
<td>.006</td>
<td>-.628**</td>
</tr>
<tr>
<td>Step 3</td>
<td>.483</td>
<td>.052**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belonging</td>
<td></td>
<td></td>
<td>-.011</td>
<td>.003</td>
<td>-.301**</td>
</tr>
<tr>
<td>Step 4</td>
<td>.488</td>
<td>.005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gay x Belonging</td>
<td></td>
<td></td>
<td>.000</td>
<td>.006</td>
<td>-.022</td>
</tr>
<tr>
<td>Lesbian x Belonging</td>
<td></td>
<td></td>
<td>-.006</td>
<td>.006</td>
<td>-.293</td>
</tr>
</tbody>
</table>

Note: $N = 132$. *$p < .05$, **$p < .01$; Total $R^2 = .488$

First, it was hypothesized that bisexual individuals would report greater levels of psychological distress than gay or lesbian individuals after controlling for ethnicity and SES (H1). As can be seen in Table 4, there was no statistically significant difference between gay men ($\beta = -.052, p = .591$) and bisexual individuals’, nor lesbian women ($\beta = .042, p = .662$) and bisexual individuals’, psychological distress levels after already controlling for ethnicity and SES.

Second, it was hypothesized that individuals of color would report greater levels of psychological distress than individuals identifying as Caucasian/Non-Hispanic after controlling for sexual orientation and SES (H2). Interestingly, as can be seen in Table 4, results did not support this hypothesis ($\beta = -.003, p = .975$).

Third, it was hypothesized that as individuals’ annual income decreases, psychological distress levels would increase, after controlling for sexual orientation and
ethnicity (H3). According to the results shown in Table 4, this hypothesis was supported at the .05 level ($\beta = -.181, p = .044$) even though the overall regression step including the three variables of sexual orientation, ethnicity, and SES was not found to be statistically significant. This result would indicate that as one’s SES level decreases, one’s psychological distress level increases, with the opposite also being true. This result needs to be interpreted with caution, though, since the overall $R^2$ was not found to be statistically significant which suggests that none of the individual explanatory variables in Step 1 should be found significant. Of note, the part correlation ($r = -.177$) and unstandardized regression coefficient ($B = -.052$) show that the magnitude of SES’s effect on psychological distress appears to be small. These findings mean that only 3.1% of the variance in psychological distress can be attributed to SES alone ($r^2 = .031$) after controlling for sexual orientation and ethnicity, and that for every additional increase in income category, one’s psychological distress score will decrease by an average of .05 points.

**Research Question Two**

Research question two was answered by assessing the significance of relationships between two psychological constructs (i.e., sexual orientation outness and self-esteem) and psychological distress, after controlling for the demographic constructs among the current sample. Overall, research question two, corresponding to Step 2 of the hierarchical regression in Table 4, was found to be statistically significant at the .05 level ($R^2 \text{ change} = .392, p < .001$). That is, 39.2% of the variance in psychological distress was
accounted for by the explanatory variables of outness level and self-esteem, above and beyond what was explained by the demographic variables of sexual orientation, ethnicity, and SES.

Specifically, it was hypothesized that as outness level increased among the sample, psychological distress would decrease, after controlling for sexual orientation, ethnicity, SES, and self-esteem (H4). Opposite of what was expected, results in Table 4 show that this hypothesis was not supported (β = -.051, p = .477).

On the contrary, the hypothesis that there would be a negative relationship between self-esteem and psychological distress, after controlling for sexual orientation, ethnicity, SES, and outness level (H5), was supported by the statistically significant coefficient for self-esteem (β = -.628, p < .001). In other words, as one’s self-esteem level increases, one’s psychological distress level decreases, after adjusting for their sexual orientation, ethnicity, SES, and outness level. Step 2 of the hierarchical regression is statistically significant mainly because of the self-esteem variable. Specifically, the part correlation (r = -.602) indicates that 36.2% of the variance in psychological distress can be explained by self-esteem alone (r² = .362) after controlling for sexual orientation, ethnicity, SES, and outness level. This means that 36.2% of the additional 39.2% explained variance in psychological distress at Step 2 of the regression analysis can be attributed to self-esteem alone.

**Research Question Three**

The third research question, evaluated by Step 3 in Table 4, assessed if perceived belongingness could significantly explain even more variance in psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation,
ethnicity, SES, outness level, and self-esteem. As expected, results supported the hypothesis that belongingness not only significantly explained psychological distress over and above the other variables already included in the model ($R^2_{\text{change}} = .052$, $\beta = -.301$, $p = .001$), but also in the anticipated direction (H6). As one’s perceived belongingness increases, one’s level of psychological distress significantly decreases.

With belongingness added to the model on top of the aforementioned explanatory variables, 48.3% of the variance in psychological distress is accounted for cumulatively by all variables in the model ($R^2 = .483$), and belongingness uniquely accounts for 5.2% of this variance in psychological distress.

**Research Question Four**

Research question four asked about a potential moderating effect of sexual orientation on the relationship between perceived belongingness and psychological distress among the sample. For this research question, remember that an *alpha* level of .10 was used due to the inherent lower power within tests of product variables (Aiken & West, 1991). As can be seen in Table 4, the hypothesis of finding a moderating effect of sexual orientation (H7) was not supported by the results ($R^2_{\text{change}} = .005$, $p = .561$). The $R^2_{\text{change}}$ value indicates that only 0.5% of the variance in psychological distress was uniquely explained by an interaction effect. More specifically, it was hypothesized that bisexual individuals’ psychological distress levels would differ more so than gay or lesbian individuals’ psychological distress at low perceived belongingness levels. This hypothesis was not supported by the results given neither product variable was statistically significant, which indicated there is no moderating effect for sexual orientation on the relationship between belongingness and psychological distress based
on product variables for gay and lesbian dummy-coded groups ($\beta = -0.022, p = .948$ and $\beta = -0.293, p = .324$), respectively. With all of the variables in the model, 48.8% of the variance in psychological distress among the sample is accounted for.

**Summary**

The analysis used to answer the four research questions for the current study was one four-step hierarchical regression examining the relationships among sexual orientation, ethnicity, SES, outness level, self-esteem, perceived belongingness, and psychological distress. Prior to running the regression, all assumptions were tested and found to be met. Regression results indicated that SES, self-esteem, and perceived belongingness were all statistically significant in explaining psychological distress among the current sample of self-identified lesbian, gay, and bisexual individuals, with self-esteem easily explaining the most unique variance of the three constructs. The one demographic construct, SES, was independently statistically significant at the $p < .05$ level ($p = .044$) despite the overall first step of the regression analysis which combined the effects of all of the demographic variables (sexual orientation, ethnicity, SES) together failing to reach significance. The two psychological constructs of self-esteem and belongingness were significant at the $p < .01$ level ($p < .001$ and $p = .001$, respectively). With all variables in the model, 48.8% of the variance of psychological distress was explained.
CHAPTER V
DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH

Psychological distress, defined as the general concept of maladaptive functioning resulting from stressful life events negatively impacting one’s emotional or physical operations and activities of daily living (Abeloff et al., 2000), is a reality that many of us face. Even though psychological distress is common among people from many different backgrounds, it is more commonly experienced by those who identify as non-heterosexual because of an increased likelihood of experiencing discrimination, harassment, and verbal and physical abuse (Bostwick et al., 2014; Fenichel, 2017; Herek et al., 2009; Tomedi & Padilla, 2013; Williams & Mann, 2017). The large mental health discrepancies between heterosexual and non-heterosexual individuals is a huge social justice concern, one in line with counseling psychologists’ pledge to promote the fair distribution of basic human rights. Therefore, the current study’s most general goal was to achieve a better understanding of non-heterosexual psychological distress in hopes of identifying some protective factors so as to inform clinical and research practices through a social justice lens.

An extensive review of the literature and conceptualization through minority stress theory (Meyer, 2003, 2007) were used to identify various established relationships found between both demographic and psychological constructs with psychological distress in previous literature. Non-heterosexual sexual orientation (Bostwick et al., 2014;
Fenichel, 2017; Tomedi & Padilla, 2013; Williams & Mann, 2017), non-Caucasian ethnicity (Cokley et al., 2017; Gonzalez et al., 2010; James et al., 2017; Young et al., 2010) and low socioeconomic status (SES; Hasin et al., 2005; James et al., 2017; Jury et al., 2017; Myer et al., 2008) were demographic variables found to have recurring relationships with psychological distress in previous studies. Overall self-esteem (Douglass et al., 2017; Harris, 2010; Jibeen, 2017; Orth et al., 2008; Sowislo & Orth, 2013), one’s degree of outness given one identifies as a sexual minority (Legate et al., 2012; Riggle et al., 2017; Williams et al., 2017), and one’s perceived sense of belonging to a community of some kind (Bailey & McLaren, 2005; Bourhis et al., 2009; Campos & Kim, 2017; Pietromonaco & Collins, 2017) all have documented relationships with psychological distress in past research as well, though these relationships tend to be more complex. What seemed to be missing from the literature was research assessing the effects of all of these variables simultaneously on psychological distress within a sexually diverse population. Since belongingness has been linked to both psychological health as well as distress depending on one’s perceived level of connectedness (Bailey & McLaren, 2005; Bourhis et al., 2009; Campos & Kim, 2017; Pietromonaco & Collins, 2017), and seems to be currently lacking research among sexual minority individuals, belongingness was the ultimate construct of interest for the current research. Therefore, the purpose of the study was to assess the role belongingness played in psychological distress among lesbian, gay, and bisexual individuals after accounting for sexual orientation, ethnicity, SES, self-esteem, and outness level through a hierarchical regression analysis. The relationship between belongingness and psychological distress was also examined to see if sexual orientation acted as a moderator. Due to the nature of a hierarchical regression
analysis, the four research questions and their associated hypotheses were formulated to assess what sort of relationship each variable (sexual orientation, ethnicity, SES, self-esteem, and outness level, belongingness) has with psychological distress within the current sample of self-identified lesbian, gay, and bisexual individuals. These relationships were all assessed independently as well as collectively in hopes of identifying the protective factors against psychological distress in the sample.

In the current chapter I discuss the results reported in the previous chapter in greater depth, including a discussion on how they fit with previous research. Implications for practice, theory, and research are also discussed, along with the limitations of the study and future directions for further research.

**Discussion of Results**

A total of 132 participants were used for the hierarchical regression to answer the four proposed research questions. It is important to take into account sample characteristics when interpreting results and making conclusions for any study. Therefore, it is important to highlight that the majority of the current study’s sample identified as Caucasian/Non-Hispanic (70.5%) and as a cisgender man or woman (34.1% and 56.1%, respectively). About half of the participants stated they were undergraduate students (54.5%), followed in frequency by doctoral students (34.8%) and then Master’s degree students (10.6%), with the most commonly-reported age ranging between 18 and 24 years old (64.4%). Noteworthy, an adequate representation of the three different self-identified sexual orientation identities was found within the sample (27.3% gay, 31.1% lesbian, 41.7% bisexual), along with a wide variety of reported annual household incomes.
Research Question One

Research question one (Q1) asked: Do sexual orientation, ethnicity, and SES explain psychological distress among lesbian, gay, and bisexual individuals? The research on these three variables and their relationship with psychological distress have all been documented in the literature (Bostwick et al., 2014; Cokley et al., 2017; Fenichel, 2017; Gonzalez et al., 2010; Hasin et al., 2005; Herek et al., 2009; James et al., 2017; Jury et al., 2017; Myer et al., 2008; Tomedi & Padilla, 2013; Williams & Mann, 2017; Young et al., 2010). This past research guided the construction for each hypothesis (H1-H3) individually, as well as the proposition that the effects of all three variables combined would account for a significant portion of the variance in psychological distress among the sample.

H1  Bisexual individuals were expected to report greater levels of psychological distress than lesbian or gay individuals after controlling for ethnicity and SES.

H2  Lesbian, gay, and bisexual individuals of color were expected to report greater levels of psychological distress than individuals identifying as Caucasian/Non-Hispanic after controlling for sexual orientation and SES.

H3  As annual income decreased among lesbian, gay, and bisexual individuals, psychological distress was expected to increase, after controlling for sexual orientation and ethnicity.

Contrary to what was expected, results indicated that a non-significant portion of psychological distress was accounted for by all three variables (sexual orientation, ethnicity, and SES) combined. More specific testing of each variable independently also failed to find significance for the effects of sexual orientation and ethnicity on psychological distress after accounting for the other two variables. In other words, there were no significant differences in psychological distress found when participants were of
different sexual orientations (lesbian, gay, or bisexual) or ethnicities (Caucasian versus non-Caucasian). Both of these findings were unexpected (refer to H1 and H2 for the respective hypotheses) since ample past research highlights how distress levels tend to be higher for individuals who identify as non-heterosexual (Bostwick et al., 2014; Fenichel, 2017; Herek et al., 2009; Tomedi & Padilla, 2013; Williams & Mann, 2017) and non-Caucasian (Cokley et al., 2017; Gonzalez et al., 2010; James et al., 2017; Young et al., 2010). Given that both of these findings have repeatedly demonstrated significant differences when compared to heterosexual and Caucasian groups, respectively, it was surprising to not find significance in these two variables. This is especially surprising because the psychological distress levels reported in the current study ($M = 1.91, SD = .51$) were almost identical to the psychological distress levels reported in Szymanski and Sung’s (2010) study involving Asian-American sexual minority individuals ($M = 1.90, SD = .61$), and were actually higher than those reported in a study involving Latina/o sexual minority individuals ($M = 1.79, SD = .51$; Velez et al., 2015).

Despite current research continuing to show high mental health disparities between non-heterosexual and sexual minorities (Fenichel, 2017; Williams & Mann, 2017), society is seemingly attempting to close this gap which may have led to the insignificant findings regarding the relationship between sexual orientation and psychological distress. Acceptance of same-sex relationships continues to increase across the nation and the federal legalization of same-sex marriage occurring in 2015 is a historical timestamp emphasizing this notion. In fact, the rate at which LGBT teens attempt suicide has decreased since the federal legalization of same-sex marriage (Raifman, Moscoe, Austin, & McConnell, 2017). Moreover, research shows that younger
generations, especially the Millennial Generation (born 1981 or later) express higher levels of support for same-sex marriage than any other generation (Pew Research Center, 2017). The Millennial Generation was the generation surveyed in this study primarily, so it is possible that the mental health disparities were nonexistent, or less apparent, in the sample due to generational effects of sexual minority acceptance. Perhaps the participants of this study have not experienced as high of levels of discrimination and homophobia as has been reported in previous literature. Research also shows that even more than half (56%) of Baby Boomers (born 1946 to 1964) favor same-sex marriage, though all of the generations show a continuous rise in acceptance over time (Pew Research Center, 2017). This trend of increased acceptance likely has positively affected the psychological levels of sexual minorities across the nation by potentially mitigating negative experiences from close loved ones and strangers alike. Since academic research can be delayed a few years from the timestamp of life events due to the nature of scientific processes, it is possible that mental health disparities between non-heterosexual and heterosexual individuals will continue to shrink as the trend to accept non-heterosexual relationships and marriages continues.

Similar to trends seen in the acceptance of sexual minorities among the Millennial Generation, there is an increased acceptance of ethnic minorities demonstrated as well (Frey, 2016). Moreover, racial diversity in general continues to increase in the United States, and Millennials play a large role in this demographic change. According to 2015 Census data, only 55.8% of Millennials identified as White, down from 63% in 2000 and 73% in 1990 (Frey, 2016). Though this is good information to consider since an increased acceptance of ethnic minorities in the society-at-large could positively affect ethnic
minorities’ psychological distress levels, it likely is not the complete story. Perhaps the more likely reason significance was not found regarding the relationship between non-Caucasian ethnicity and increased psychological distress levels is due to a low sample size of non-Caucasian identified individuals. With a low sample size, it is hard for the sample to accurately reflect the broader population of ethnic minorities, thus perhaps leading to this study’s nonsignificant findings which happen to be in contradiction to various other studies (Cokley et al., 2017; Gonzalez et al., 2010; James et al., 2017; Young et al., 2010).

It is also possible that neither sexual orientation, nor ethnicity, were found to explain a significant portion of psychological distress in the current sample due to the recruitment efforts employed (see Chapter III for a thorough review). Campus climate, defined as the current attitudes, behaviors, and standards of faculty, staff, administrators, and students concerning the level of respect for individual needs, abilities, and potential, has been found to be directly associated with student mental health functioning as well as academic success for sexually diverse students (Byron, Lowe, Billingsley, & Tuttle, 2017) and ethnic minority students (Juang, Ittel, Hoferichter, & Miriam Gallarin, 2016). The recruitment efforts employed in the current study included contacting some of the “best colleges” and “top universities” in the United States as found by Niche.com Inc (2017a, 2017b), and a positive campus climate was one of the many factors used to determine which institutions made these lists. Specifically, data on numerous factors coming from the United States Department of Education, paired with an analysis of millions of reviews from students and alumni, were taken into consideration when creating these “best colleges” and “top universities” lists (Niche.com Inc, 2017a, 2017b).
For example, data regarding academic quality, admission rate, financial assistance, student life experience, and campus quality are a few of the factors analyzed to create these lists. Because of this recruitment strategy, it is possible that the participants who attended one of these institutions have a more positive experience with their non-majority identity in general compared to same-aged peers attending a different college/university or working in the community. In this instance, the anticipated differential effects sexual minority status and non-Caucasian ethnicity have on psychological distress would be minimized in the sample. Further discussion on this notion can be found in the limitations section of this chapter.

Interestingly, SES as an independent explanatory variable of psychological distress was found to have a significant negative relationship with psychological distress even though the overall significance test of Step 1 including the combined variables of sexual orientation, ethnicity, and SES was not found to be significant. Even though this finding supports H3 and appears to be congruent with other research regarding low SES’s deleterious effects on psychological distress (Hasin et al., 2005; James et al., 2017; Myer et al., 2008), this result needs to be interpreted with caution. Since the combination of variables (sexual orientation, ethnicity, and SES) failed to reach significance in Step 1, it is unclear why SES was found to be a significant independent explanatory variable for psychological distress. The part correlation coefficient found in Chapter IV indicated that 3.1% of psychological distress can be explained by SES alone, after controlling for sexual orientation and ethnicity. Though this seems like a small percentage, it is possible that the overall $R^2$ in Step 1 could be significant with a larger sample size, especially because current findings show that SES already explains 3.1% of the total 3.8% of
psychological distress found in this first step of the regression analysis composed of all three variables (sexual orientation, ethnicity, and SES).

**Research Question Two**

Research question two (Q2) asked: Do outness level and self-esteem explain psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation, ethnicity, and SES? Since both outness level and self-esteem have independently strong, albeit complex, relationships with psychological distress documented in the literature, it was important to include these constructs in the regression model. Specifically, it was hypothesized that by adding both outness level and self-esteem to the model, a significant portion of psychological distress variance would be accounted for, over and above what was accounted for by the demographic variables assessed in Q1. Results supported this hypothesis because a significant additional portion of the variance in psychological distress was, in fact, explained by adding outness level and self-esteem to the regression model.

The fourth and fifth hypotheses (H4 and H5), guided by past research on the complex relationships self-esteem (Douglass et al., 2017; Harris, 2010; Jibeen, 2017; Roberts & Monroe, 1994; Sowislo & Orth, 2013) and outness level (Legate et al., 2012; Morris et al., 2001; Ragins et al., 2007; Riggle et al., 2017; Williams et al., 2017) have with psychological distress, were formulated to best understand how each of the explanatory variables were affecting psychological distress in the sample, if at all, after demographic variables were accounted for.

**H4** As outness level increased among lesbian, gay, and bisexual individuals, psychological distress was expected to decrease, after controlling for sexual orientation, ethnicity, SES, and self-esteem.
H5 As self-esteem increased among lesbian, gay, and bisexual individuals, psychological distress was expected to decrease, after controlling for sexual orientation, ethnicity, SES, and outness level.

Results showed that the overall significant support for Q2 strictly came from the addition of self-esteem, and that outness level was not a significant explanatory variable of psychological distress in the sample.

The fourth hypothesis (H4) predicted there would be a negative explanatory relationship between outness level and psychological distress, meaning that the more one is “out,” the less likely they will experience psychological distress. Though a significant negative relationship between outness level and psychological distress was found in the current study as evidenced by a simple correlation coefficient ($r = .165, p = .029$), the beta weight ($\beta = -.051$) of outness level failed to reach significance in order to explain some portion of psychological distress variance. The fact that outness level was not a significant explanatory variable in this study was surprising given the complex relationship it has with psychological distress as evidenced by prior research. For example, various research studies were discussed in Chapter II highlighting that sometimes individuals experience less psychological distress after disclosing their sexual orientation to others because they are free from the cognitive burden of “hiding” (Berger, 1992; Jordan & Deluty, 1998; Legate et al., 2012; Morris et al., 2001; Viehl et al., 2017; Williams et al., 2017), whereas others experience less psychological distress when they choose to conceal their sexual orientation identity so as to avoid stigma, harassment, discrimination, and perhaps even assault (Legate et al., 2012; Mays & Cochran, 2001; Ragins et al., 2007; Riggle et al., 2017). It is possible that the variance of psychological distress that outness level could have accounted for was already accounted for by any of
the demographic variables (sexual orientation, ethnicity or SES) entered in Step 1 of the regression, or by self-esteem also entered in Step 2 of the regression model. It is also possible that by using the full-scale NOS as opposed to keeping the subscales separate, I lost explanatory power due to the related, but distinct subscales (i.e., disclosure and concealment) of the NOS. Regardless, the explanatory power of outness level on psychological distress was not as strong as I had originally thought. Additional research on the independent explanatory power of outness level on psychological distress is needed to better understand the role it can play in multiple regression models.

On the contrary, the results from the current study support H5’s prediction that there would be a significant negative explanatory relationship between self-esteem and psychological distress in the sample of lesbian, gay, and bisexual individuals. This means that results indicated significantly less psychological distress was experienced among those with higher self-esteem. The fact that Step 2 of the regression analysis accounted for an additional 39.2% of the variance in psychological distress ($p < .01$) with only self-esteem as a significant explanatory variable in this step indicates that self-esteem in the current study had a robust, favorable effect on psychological distress. Specifically, self-esteem individually accounted for 36.2% of the additional 39.2% explained variance in psychological distress at Step 2 of the regression analysis. These results are similar to findings from other research indicating strong relationships between high self-esteem and low psychological distress (Douglass et al., 2017; Jibeen, 2017; Kidd & Shahar, 2008; Sowislo & Orth, 2013). Perhaps Marcussen’s (2006) findings can be applied to this study’s sample, namely individuals with higher self-esteem tend to have more resiliency in the face of hardship compared to those with lower self-esteem, thus potentially
explaining less psychological distress. In fact, researchers have found that self-esteem plays a protective factor against negative psychological affect among LGB individuals after experiencing sexual orientation discrimination (Douglass et al., 2017). Feeling an internal sense of worth, despite what others think or say, seems to be extremely important if one is to face “sexual stigma” (Herek et al., 2009), negative judgements from the society at large, almost daily. It is also possible that participants in this study with a high sense of self-esteem feel a greater sense of control over their self-evaluation, thus reducing mental health impacts; this would be comparable to what Judge et al. (2002) found regarding the close relationship between self-esteem and locus of control. Regardless of the specific mechanics of how self-esteem negates the deleterious effects of psychological distress, the findings from the current study are not only in line with prior research, but are clearly important to continue investigating.

**Research Question Three**

Research question three (Q3) asked: Does perceived belongingness help to explain psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation, ethnicity, SES, outness level, and self-esteem? The hierarchical regression analysis found that after all of the other explanatory variables were controlled for, perceived belongingness accounted for a significant additional portion of the variance in psychological distress at the $p < .01$ significance level. This means that even after the effects of the five other variables (sexual orientation, ethnicity, SES, outness level, and self-esteem) on psychological distress were taken into consideration, one’s level of perceived belonging could uniquely explain an additional 5.2% of psychological distress among the sample, indicating the prominence of its effect.
More specifically, it was hypothesized in the sixth hypothesis (H6) that belonging and psychological distress would have a significant negative explanatory relationship, meaning as one’s level of belonging increases, psychological distress decreases.

H6 Perceived belongingness was expected to aid in explaining psychological distress among lesbian, gay, and bisexual individuals after controlling for sexual orientation, ethnicity, SES, outness level, and self-esteem. Specifically, perceived belongingness was expected to be negatively related to psychological distress.

The results from the study support this hypothesis and stand to provide evidence of a significant negative relationship between belongingness and psychological distress in the sample. This positive effect of belongingness, or feeling as though one is a valued member of some sort of community, on psychological distress is similar to other research that has been conducted (Bourhis et al., 2009; Bryan et al., 2013; Campos & Kim, 2017; Holt-Lunstad et al., 2017; Pietromonaco & Collins, 2017). Generally speaking, Baumeister and Leary (1995) found that it was common among participants who did not fulfill this belonging aspect of their life to struggle with ill effects on health, adjustment, and well-being through their review of belonging research. More specifically, depression (Choenarom et al., 2005), emotional disruption (Bourhis et al., 2009) and suicidal ideation (Bailey & McLaren, 2005; Bryan et al., 2013) are a few discussed negative effects of lacking a sense of belonging cited in the literature. Even though the positive, helpful effect of belongingness has been well documented in past literature, the current results are among the first to showcase its true importance due to the nature of the hierarchical regression analysis. Since perceived belongingness explained a significant portion of psychological distress variance even after the effects of five other variables were controlled for in the hierarchical regression analysis, it clearly is a construct worth
attending to in future research. These results highlight the importance of perceived belongingness as a safeguard against experienced psychological distress among the sample of lesbian, gay, and bisexual participants, and it is clearly a construct worth more research time and attention.

**Research Question Four**

Finally, research question four (Q4) asked: Is the relationship between perceived belongingness and psychological distress moderated by sexual orientation among lesbian, gay, and bisexual individuals? Not only was a potentially overall moderating effect being examined, but a specific hypothesis (H7) was created given a review of the literature showcasing unique psychological stressors for bisexual-identified individuals (Alarie & Gaudet, 2013; Balsam & Mohr, 2007; Brownfield & Pollitt, 2017; Flanders et al., 2017; Mohr & Sarno, 2016).

**H7** Sexual orientation was expected to moderate the relationship between perceived belongingness and psychological distress among lesbian, gay, and bisexual individuals. Specifically, it was hypothesized that among those reporting higher levels of perceived belongingness, there would be no difference in psychological distress based on sexual orientation. Conversely, it was hypothesized that among those reporting lower levels of perceived belongingness, there would be differences in psychological distress based on sexual orientation with bisexual individuals reporting higher psychological distress than either gay or lesbian individuals.

The results showed no significant moderating effect of sexual orientation on the relationship between belongingness and psychological distress. This is in direct opposition to what was predicted, along with what past research has shown about bisexual-identified individuals feeling excluded (Bostwick & Hequembourg, 2014; McLean, 2008a; Mohr & Sarno, 2016) and having poorer mental health outcomes than
lesbian women or gay men (Balsam & Mohr, 2007; Brittain & Dinger, 2015; Callis, 2013; Lewis et al., 2009; Kerr et al., 2013).

It is possible that no moderating effect was found given that the sample was recruited through various sexual minority email listservs and from university gender and sexuality resource centers. This alone shows that the participants, regardless of their sexual orientation identity, are connected to some form of group which could be meaningful to them potentially leading to some form of sense of belonging.

Also, since being an undergraduate or graduate student was one of the eligibility criteria, this could have affected the chances of finding an interaction between belongingness and psychological distress. College and university settings tend to be places of greater personal acceptance, when compared to the community at large, where educated individuals aspire to broaden their and others’ knowledge and perspectives (Gross, 2014). Therefore, regardless if the participants felt strongly connected to their listserv or school’s gender and sexuality resource center, they could have had ample opportunities to find connection through various other resources and activities offered through the student campus community hopefully allowing them to find a place of belonging. These possible opportunities to find a community where one belongs, whatever that may be, could potentially mitigate the effects of “otherness” experienced due to one’s sexual orientation (similar to results for H6), therefore muting a difference between specific sexual identity psychological distress within the sample.

**Summary of Results**

The current study assessed the role perceived belongingness has on psychological distress among self-identified lesbian, gay, and bisexual higher education students after
controlling for a variety of other variables (sexual orientation, ethnicity, SES, self-esteem, and outness level) that have been found to have relationships with psychological distress. Because one’s sexual orientation, ethnicity, and SES have been found to have significant relationships with psychological distress in previous literature (Bostwick et al., 2014; Cokley et al., 2017; Fenichel, 2017; Gonzalez et al., 2010; Hasin et al., 2005; James et al., 2017; Jury et al., 2017; Myer et al., 2008; Tomedi & Padilla, 2013; Williams & Mann, 2017; Young et al., 2010), all three of these variables were accounted for in the overall regression analysis and analyzed independently at Step 1. Surprisingly, the combination of sexual orientation, ethnicity, and SES did not account for a significant portion of the variance in psychological distress. Unlike what has been shown in past research and what was predicted in the current study, neither sexual orientation (Balsam & Mohr, 2007; Bostwick et al., 2014; Fenichel, 2017; Herek et al., 2009; Tomedi & Padilla, 2013; Williams & Mann, 2017) nor ethnicity (Cokley et al., 2017; Gonzalez et al., 2010; James et al., 2017; Young et al., 2010) were independently found to have statistically significant relationships with psychological distress among the current sample. Conversely, SES was found to have an independently significant relationship with psychological distress among the sample despite the overall combination of variables failing to reach significance. Even though this result of a significant negative relationship between SES and psychological distress is in line with past research (Hasin et al., 2005; James et al., 2017; Jury et al., 2017; Myer et al., 2008) this result needs to be interpreted with caution since the entire Step 1 of the regression analysis was insignificant.
Outness level among sexual minority individuals and overall self-esteem have been linked to psychological distress in previous literature as well (Douglass et al., 2017; Jibeen, 2017; Legate et al., 2012; Orth et al., 2008; Riggle et al., 2017; Sowislo & Orth, 2013; Williams et al., 2017). Therefore, these two psychological constructs were controlled for in the overall regression analysis at Step 2 and their unique relationships with psychological distress were also assessed. Together, both outness level and self-esteem accounted for a substantial portion of the variance in psychological distress (39.2%) in the current study. Contrary to what was expected, though, outness level did not have a significant negative explanatory relationship with psychological distress. Due to the complex relationship outness level has with psychological distress found in previous literature (Legate et al., 2012; Mays & Cochran, 2001; Morris et al., 2001; Ragins et al., 2007; Riggle et al., 2017; Viehl et al., 2017), this result was surprising. It is possible that the explanatory power of outness level was affected due to other variables already being in the regression model. Thus, the explanatory variable of self-esteem was the main reason Step 2 of the regression was found to be significant as evidenced by the independent significant relationship between self-esteem and psychological distress among the sample. This anticipated significant negative relationship between self-esteem and psychological distress is consistent with multiple other studies demonstrating the positive effect self-esteem has on psychological distress (Douglass et al., 2017; Harris, 2010; Jibeen, 2017; Marcussen, 2006; Orth et al., 2008; Roberts & Monroe, 1994; Sowislo & Orth, 2013). Clearly self-esteem maintains to be an important protective factor against psychological distress as evidenced by past literature and the current study’s findings.
Perceived belongingness, the explanatory variable of interest, was assessed independently in Step 3 of the regression analysis. Results indicated that belongingness was found to have a significant negative relationship with psychological distress which means that as one’s perceived sense of belonging increased, their psychological distress decreased. Though this finding is similar to past research assessing the independent relationship between belongingness and psychological distress (Bailey & McLaren, 2005; Bourhis et al., 2009; Bryan et al., 2013; Campos & Kim, 2017; Choenarom et al., 2005; Pietromonaco & Collins, 2017), the current study is among the first studies attempting to assess the additional role perceived belonging can play in protecting against psychological distress after other variables have already been accounted for. Results highlight that belongingness is perhaps an even more important protective factor against psychological distress than originally realized as it uniquely accounted for an additional 5.2% of psychological distress variance after five other variables were already in the regression model. Besides this being a significant finding, this result is important to highlight because one of the main purposes for the study was to hopefully identify a protective factor for sexual minority individuals in hopes of promoting mental health.

Lastly, the potential moderating effect of sexual orientation on the relationship between perceived belongingness and psychological distress failed to reach significance (see Step 4). This result is contrary to previous research which documents the potential for bisexual-identified individuals to experience even greater psychological distress than their lesbian or gay counterparts (Balsam & Mohr, 2007; Brittain & Dinger, 2015; Callis, 2013; Kerr et al., 2013; Lewis et al., 2009). Recruitment strategies, eligibility criteria, and an overall trend for increased acceptance of sexual minorities (Pew Research Center,
2017) could all be reasons why no moderation effect was found. Further research on a potential sexual orientation interaction effect on the relationship between perceived belongingness and psychological distress is needed to clarify this unanticipated result.

**Implications**

**Clinical Implications**

The findings of this study highlight that both self-esteem and belongingness can serve as important protective factors against psychological distress among LGB college students as evidenced by their significant negative relationships with psychological distress. Given this, it is imperative for university counseling center practitioners to assess clients’ self-esteem and perceived belongingness levels as part of the structured interview or ongoing therapy sessions. Regardless of the presenting concern, both high self-esteem and high perceived belongingness seem to have a significant negative relationship with psychological distress. Therefore, an accurate assessment of clients’ self-esteem and belongingness levels can allow for accurate treatment planning. For example, the treatment planning would likely look different between two LGB persons who are in significant distress if one already displays high self-esteem and a place of belonging when the other does not.

To possibly address a lack of belonging in a LGB client, it is important for counselors to determine in what setting or domain the client wishes they felt a stronger sense of belonging. If the client reports feeling a lack of belonging in their family, friendships, or romantic relationships, emotional processing with a clinician will likely be beneficial for this client prior to attempting to increase perceived belonging. In addition to individual therapy, family therapy and couples counseling would likely be effective
treatments to use in these instances to enhance a sense of understanding and belonging. Group therapy is another possible avenue to enhance students’ sense of belonging. Overall perceived belongingness has the potential to be positively affected by either support groups where individuals are able to connect with similar others, or through interpersonal process groups where individuals can learn more about themselves in relation to other people. In either of these environments, clients will likely increase their understanding of themselves and others, in addition to forming meaningful connection.

If the client reports a desire for an increase in their peer network, brainstorming options about what the client is interested in will be helpful. Noteworthy to mention is that just because the client identifies as non-heterosexual does not mean that they inherently will have an interest in associating with only other sexual minority members, if at all. Clinicians should be cautious against making this assumption and instead be mindful to ask the LGB client where they most desire a feeling of belonging. Once this is established, the clinician and client could collaborate on finding available campus and community resources that align with the type of network the client is yearning for.

Aspects getting in the way of connection besides available communities, such as social anxiety or apathy, could be addressed in therapy with the clinician in hopes of setting clients up for success as they embark on finding a meaningful place of belonging. In getting to know the client’s situation better, it is possible that the client may disclose that their self-esteem or internalized homophobia/biphobia is negatively affecting their comfort level in even attempting to find connection. These specific topics, then, could be worked through on an individual basis promoting personal acceptance while simultaneously promoting the importance of finding a place of belonging among
meaningful others. The goal in finding a place of belonging and building self-esteem is to minimize experienced psychological distress for LGB individuals.

Low self-esteem can be a tough issue to address in individual counseling because it oftentimes is at the core of a person’s being. Ways in which to approach enhancing self-esteem will likely be dictated by a clinician’s theoretical orientation. For example, negative/maladaptive core beliefs might be the focus of individual therapy sessions if the clinician is operating from a cognitive-behavioral therapy standpoint, whereas attachment needs will take precedence if emotion-focused theory is the lens through which the clinician views the client’s concerns. Regardless of the specific approach to strengthening overall self-esteem, building on clients’ strengths and resiliency factors is critical to bolstering self-esteem. Through open dialogue with the client, strengths will be identified and applied to other areas of their life, ideally aiding in the enhancement of self-esteem. The enhancement of self-esteem, though complex and often challenging, is worth the time and effort. This is especially true for LGB students according to the results of this study, seeing how self-esteem accounted for such a large portion of psychological distress among the sample.

Another noteworthy point to keep in mind regarding enhancing college students’ sense of belonging (and perhaps even self-esteem) involves something much more complex than the advertisement of, and connection to, various campus or community organizations. Outreach, education, and advocacy promoting social justice for sexual minority individuals in the campus and local communities will likely be more impactful than the simple act of connecting clients to resources because the local and campus cultures set a tone of acceptance (or disapproval) of sexual minority individuals.
Consequently, any advertised college or community resource will be affected by this tone of acceptance to varying degrees. For instance, even if there is a sexual minority resource center on campus, but the tone of the campus as a whole is one of unacceptance, the client may be experiencing distress due to feeling a lack of belonging at the college in general. This will likely negatively affect LGB students’ self-esteem level which will negatively affect their ability to combat psychological distress. Therefore, the significance of outreach, education, and advocacy by counseling psychologists on behalf of sexual minority individuals is critical as it can help set a more accepting vibe to the campus and local communities by reducing stigma. Outreach and education efforts could be general in nature discussing the importance of inclusion and the negative effects of stereotypes, discrimination, and prejudice against any minority person, or the outreach efforts could be specific to sexual minority individuals by providing education on proper terminology and debunking myths of sexual diversity, for example. Not only are these outreach and education efforts in line with psychologists’ call to be social justice advocates attempting to empower individuals or groups experiencing prejudice, but they will ideally assist in creating even more opportunities for one to find a sense of belonging because of reduced stigma and discrimination. The more outreach, education, and advocacy that can be done on behalf of LGB individuals, the less prejudice and discrimination will ideally be present in the campus and community cultures. This will then hopefully allow for a more equal experience in finding a place of belonging regardless of one’s sexual orientation.
Theoretical Implications

The study was conducted from a social justice perspective guided by Minority Stress Theory (Meyer, 2003, 2007). Minority Stress Theory (Meyer, 2003, 2007) argues that sexual minority individuals are at a greater risk of experiencing repeated discrimination and harassment from the society-at-large simply due to their non-heterosexual sexual orientation. This, in turn, negatively affects sexual minority individuals’ overall mental health. Thinking from a social justice standpoint and the increased chance of poor mental health among sexual minority individuals, the current study assessed to see how well, if at all, perceived belongingness acted as a protective factor against psychological distress among lesbian, gay, and bisexual adults. The findings indicated that both self-esteem and perceived belongingness were significant protective factors against psychological distress among the sample.

The findings from this study fit nicely into Meyer’s (2003, 2007) Minority Stress Theory conceptualization. Specifically, the results can be interpreted within the theory’s framework through the four general stressors sexual minority individuals tend to face according to Meyer (2003, 2007). These include “experienced prejudicial events,” “expectations of rejection due to stigma,” “stress around sexual orientation concealment,” and “internalized homophobia.” Meyer (2003, 2007) also labeled one coping strategy (“ameliorative coping processes”) commonly used to combat minority stress in his theory. The specific ways the results from the current study relate to the Minority Stress Theory are outlined below.

The significant negative relationship found between belongingness and psychological distress adds a specific significant practice to Meyer’s (2003, 2007)
discussed concept of “ameliorative coping processes.” For example, feeling as though one belongs within a specific system or environment can serve as a unique aspect that combats some of the stress experienced as a sexual minority. Ideally, a positive group membership regardless of what it looks like can serve as a function of a non-threatening, non-stigmatizing environment where the individual feels free to be themselves.

Additionally, the significant negative relationship found between self-esteem and psychological distress outlines another specific construct that aids individuals in coping with the stress of identifying as a non-heterosexual individual. Higher self-esteem (e.g., holding a positive view of oneself, feeling satisfied with oneself) appears to offer a significant way to positively manage the stressors that can accompany one’s life simply due to their sexual orientation. It is possible that the negative stressors Meyer (2003, 2007) outlined negatively affect one’s self-esteem, but it is still imperative to highlight that positive self-esteem, acting as an ameliorative coping process, has the potential to serve as a protective factor against psychological distress among LGB individuals as evidenced by the results among the current sample.

The significant negative relationship perceived belongingness has with psychological distress could be more specifically viewed through the lens of the Minority Stress Theory as perceived belongingness buffering the effects of the stressors “experienced prejudicial events” and “expectations of rejection due to stigma.” For example, the more one feels as though they belong, the more likely they are among others who are accepting, so the less likely they are going to experience prejudice or rejection due to their sexual orientation (at least in the contexts where their feelings of belonging are highest). Of course, it is possible for a person to experience prejudice and/or rejection
in any context, especially contexts outside of the environment where they feel their highest sense of belonging, thus indicating limits to this positive effect of belonging.

Nevertheless, the protective aspects associated with a sense of belonging to someone or something can help diminish the overall negative effects of two of the most important stressors sexual minority individuals face according to Meyer (2003, 2007), “experienced prejudicial events” and “expectations of rejection due to stigma.”

Moreover, the significant negative relationship self-esteem has with psychological distress could be more specifically viewed through the lens of the Minority Stress Theory as self-esteem buffering the effects of the stressor “internalized homophobia.” It seems to make theoretical sense that self-esteem, defined as the subjective appraisal of one’s value or worth as a person (Marcussen, 2006), can buffer the effects of internalized homophobia, which oftentimes manifest as psychological distress. Therefore, if one holds higher self-esteem, they will likely be able to refrain from internalizing negative homophobic messages received in society and instead maintain a higher sense of self-worth and value. This, in turn, will likely protect them from a degree of psychological distress commonly experienced by LGB individuals.

The results of this study discussed in terms of how they fit with Meyer’s (2003, 2007) Minority Stress Theory showcase additional support for the general theory as a way to conceptualize the stress a sexual minority individual may face. Additionally, the study’s results highlight some specific ways LGB individuals can combat some of the common stressors outlined by the Minority Stress Theory. Of course, the results of this study need to be taken in the context of the sample, namely, the majority of participants
were Caucasian, cis-gender, undergraduate students under the age of 25. Even with this fact, the theoretical implications the results offer and how nicely they correspond to Meyer’s (2003, 2007) Minority Stress Theory must be noted.

**Research Implications**

There have been multiple studies assessing the relationship that various demographic and psychological constructs have with psychological distress. Among this past research, psychological distress has been linked to sexual orientation (Bostwick et al., 2014; Fenichel, 2017; Tomedi & Padilla, 2013; Williams & Mann, 2017), ethnicity (Cokley et al., 2017; Gonzalez et al., 2010; James et al., 2017; Young et al., 2010), SES (Hasin et al., 2005; James et al., 2017; Jury et al., 2017; Myer et al., 2008), outness level (Legate et al., 2012; Riggle et al., 2017; Williams et al., 2017), self-esteem (Douglass et al., 2017; Harris, 2010; Jibeen, 2017; Orth et al., 2008; Sowislo & Orth, 2013), and perceived belongingness (Bailey & McLaren, 2005; Bourhis et al., 2009; Campos & Kim, 2017; Pietromonaco & Collins, 2017) in various ways. The majority of the studies looking at relationships between these variables and psychological distress have usually been assessing only one construct at a time. Therefore, the current study and results add to the literature on psychological distress by discussing how it can be explained by a specific combination of demographic and psychological constructs. The combination of tested variables in this study were chosen due to individual findings from previous research, but this is seemingly the first study where this specific combination of variables was used to explain psychological distress, especially among a sample of lesbian, gay, and bisexual individuals. Due to the nature of a hierarchical regression, the importance of all of the construct relationships with psychological distress were able to be assessed
during the analysis. Therefore, this research provides an opportunity to better understand how these variables relate to psychological distress independently and collectively among a sample of LGB undergraduate and graduate students.

Findings from this research indicate that the demographic variables of choice (sexual orientation, ethnicity, and SES) were not significant in explaining psychological distress, but two of the three chosen psychological variables (self-esteem and perceived belongingness) were significant. Further research attempting to study the effects of multiple demographic and psychological constructs on psychological distress among LGB individuals could glean helpful information from the results of this study in hopes of explaining an even greater amount of variance in psychological distress levels among lesbian, gay and bisexual participants. The explanatory power of the outness level has on psychological distress is an avenue that specifically needs further exploration due to contradictory findings in past research (Legate et al., 2012; Morris et al., 2001; Ragins et al., 2007; Riggle et al., 2017; Williams et al., 2017) and the fact that a non-significant explanatory relationship was found in the current study. Any additional information that can be gathered about the independent explanatory power of the outness level has on psychological distress would be extremely helpful in clarifying this relationship and aid in understanding the role it can play in multiple regression models.

Because this research highlighted the empirical importance of self-esteem and belongingness in explaining LGB psychological distress, specifically, both perceived belongingness and self-esteem appear to be worthwhile constructs to research further. Future research could assess how and why they relate to psychological distress among sexual minority individuals compared to other specific populations. The relationships that
psychological distress, self-esteem, and perceived belonginess all have with each other would also likely be an avenue of empirical interest given the results of this study. The more resources dedicated to further studying perceived belongingness and self-esteem, the more our understanding of how and why they relate to psychological distress will be enhanced. The more enhanced knowledge we can get on the relationships between perceived belongingness, self-esteem, and psychological distress, the more specific and helpful our interventions and applications will be in hopes of promoting mental health.

Another implication of this study involves the purposeful inclusion of bisexual-identified individuals. By doing so, the results of this study have the potential to add to the expanding literature regarding bisexual mental health and protective factors. Though lesbian, gay, and bisexual individuals were all combined as a general group of “sexual minorities” for three of the four research questions, purposefully including bisexual individuals in this study allows for a greater footprint of bisexuality in the research literature. On this note, the significant findings of self-esteem and perceived belongingness ideally attest that these two factors could be protective against psychological distress among any person who identifies as lesbian, gay, or bisexual. The combining of these participants together as one LGB sample at first was intentional, in hopes of finding protective factors for a wider range of sexual minority persons. Similarly, the individual assessment of a potential moderating effect of sexual orientation on the relationship between perceived belongingness and psychological distress (Q4) was also intentional in hopes of distinguishing significant differences in protective factors among the three sexual orientations included in this study. Even though a moderating effect was not found in the current study, the intention of noting a potential difference
between sexual orientations supports the importance of treating bisexuality differently from lesbian or gay identity, something gaining empirical support in the literature.

**Limitations & Recommendations for Future Study**

As with all research, there were limitations to this study. One methodological limitation includes the self-report nature of the online survey for both the demographic questionnaire, as well as the measures used to examine various psychological constructs. It is possible that participants (a) misunderstood survey items, (b) had poor introspection on their overall personal experience which would hinder the accuracy of the report, or (c) answered the survey in hopes of appearing different than they are, especially regarding sensitive information (Groves et al., 2009; Remler & Van Ryzin, 2011). Therefore, the validity of the scores obtained from the survey may be limited, so results need to be interpreted with this in mind.

The non-probability convenience sampling technique utilized to find participants for the current research is also a methodological limitation because it is possible that the participants who were reached via the specific email listservs and college/university resource centers are not an accurate reflection of the entire lesbian, gay, and bisexual student population. Not only were a finite number of college/university gender and sexuality resource centers contacted for the purposes of this research, it was the center’s discretion whether they wished to advertise the call for participants to their students. Moreover, because only a finite number of college/university sexuality resource centers were contacted for participation recruitment purposes and these institutions came from “best colleges” and “top universities” ranking lists (Niche.com Inc, 2017a, 2017b), the generalizability of the results to lesbian, gay, and bisexual students living across the
United States is limited seeing how the most commonly represented states in the current study included Massachusetts (15.7%), New York, (15.7%), Texas (8.7%), Illinois (8.7%), and California (7.9%). It is important to note what criteria were used to make a liberal arts college “best” and a university “top” according to Niche.com Inc (2017a, 2017b). Data on numerous factors coming from the United States Department of Education, paired with an analysis of millions of reviews from students and alumni, were taken into consideration when creating these lists (Niche.com Inc, 2017a, 2017b). For example, data regarding academic quality, admission rate, financial assistance, student life experience, and campus quality are a few of the factors analyzed to create these lists. There has been some minor shifting in what colleges and universities make the first 20 advertised “best colleges” and “top universities” lists now that it is 2018, primarily toward the bottom ranking slots, which is why the specific list of contacted colleges and universities for participation recruitment in 2017 is outlined in Appendix J.

The generalizability of the results is also limited because a student would have to be connected to their college/university resource center in some regard for them to see the advertisement posted. This same sentiment holds true for the email listservs as well; to see the recruitment advertisement on a chosen listserv, a potential participant must have been a subscriber to that listserv. The LGB students who were not exposed to the study advertisement, chose not to take the survey, or dropped out of the survey once they started may not be represented in the data. These limits to generalizability are important to remember when interpreting the research findings as the sample is not necessarily an accurate reflection of the overall lesbian, gay, and bisexual student population. Therefore, it is recommended that further research on belongingness be conducted in additional and
different listservs and college/university settings. Examining the role belongingness plays on psychological distress among a non-student, community-based sample of lesbian, gay, and bisexual individuals would also prove to be informative. It would be interesting to see if results could be replicated or if data would produce different findings. The more we can learn about the potential protective role of belongingness against psychological distress among lesbian, gay, and bisexual individuals, the better off we will be as psychologists to enact educated intervention.

The discussion earlier in Chapter II identified both a strength and a weakness to measuring one’s general sense of belonging (as assessed by the General Belongingness Scale (GBS)). The weakness perspective offered an argument that detailed information about where one feels they do/do not belong has the potential to be lost as participants attempt to “average” their sense of belonging across a variety of communities when responding to the GBS. Therefore, the results of one’s general sense of belonging found in the current study may not be an accurate reflection of their true sense of belonging in various groups/situations which could hinder the true assessment of how their belonging is related to their psychological distress. For example, the GBS question “I feel accepted by others” could be context dependent in that one may have a high sense of belonging among close friends, but a low sense of belonging within their immediate family. In this example, the “average” of these opposite feelings of belonging fail to honor the true sense of belonging the individual has in the different circumstances and can result in inaccurately identifying the effect belongingness has on psychological distress.

It is also possible that participants were only thinking of a specific group of people or unique community when responding to the GBS items as opposed to
generalizing their feelings of belongingness, though I, the researcher, was not privy to this information and instead was left interpreting the responses as general belongingness scores. For example, if participants have a high sense of belonging among family, but lack connection to their student community, they may have answered the GBS items only through the lens of holding a high sense of belonging among family. If this was the case, the participant would have shown an overall high sense of general belonging, but this is not accurate given they failed to include the experienced lack of connection to peers in their scores. Moreover, if multiple participants were only reflecting on one specific group or organization when answering GBS items, it is likely that this group or organization differed between participants. For instance, one participant could have been focusing on their high sense of belonging in their family and another participant could have been answering questions about high perceived belonging among fellow sports teammates. Though both participants were reflecting on a high sense of belonging, they (a) were reflecting on distinct groups of people which was lost due to the nature of the study and (b) failed to generalize their sense of belonging which could affect results.

Consequently, as research begins to uncover the basic role belongingness plays with psychological distress among LGB individuals after already accounting for other variables, more explicit research assessing belongingness to different groups or organizations can be conducted to assess what types of belonging are most advantageous for working against psychological distress among LGB individuals. To do this kind of research, it is likely necessary that a greater number of belonging measures be created and validated in order to find suitable results.
Important to mention is that the current study did not address the effects of intersecting identities on psychological distress. Many participants held multiple identities (e.g., ethnic minority and sexual minority) and though ethnicity and SES were controlled for in this study, the additive effects of multiple identities were not examined in the sample. This is important to remember as the results for psychological distress are interpreted. Future research could assess the role belongingness plays in psychological distress among individuals holding intersecting minority identities. Since people hold multiple identities and each plays a role in our lives, the results from research such as this has the potential to hold additional practical implications.

Lastly, given that self-esteem and belongingness were the two constructs found to have significant relationships with psychological distress among the sample of lesbian, gay, and bisexual participants, further research involving these two constructs will likely be informative. For example, conducting research with different variables in place of those found to be non-significant in this study to see if self-esteem and belongingness still have significant relationships with psychological distress could be interesting. Research assessing the effects perceived belongingness and self-esteem have on specific forms of psychological distress (i.e., depression, anxiety, insomnia) could also be educational as researchers attempt to truly understand the buffering effects of these two constructs against psychological distress among LGB individuals. The results of studies such as these would build on this foundational research and would likely aid in advancing education and policy promoting psychological health among sexual minority individuals.
Conclusion

The current study’s findings will preferably be among a wide collection of studies attempting to better understand sexual minority psychological distress and possible protective factors. Avenues to continue building upon this research were discussed earlier in this chapter. With enhanced knowledge of sexual minority psychological distress and protective factors, research, advocacy, and therapeutic intervention will be able to be applied in a more refined fashion in hopes of improving mental health initiatives for the sexual minority population. As counseling psychologists, it is our duty to pay attention to and address social justice inequality, so promoting helpful, culturally sensitive mental health initiatives can be our role in ensuring the just distribution of human rights.

The results of this study highlight that perceived belongingness and self-esteem are substantial protective factors against psychological distress among lesbian, gay, and bisexual university students. Though there are limitations to the generalizability of the results found in this study, the results nevertheless suggest noteworthy implications in research, theory, and practice. Perhaps the most significant implication discussed above is the call for increased outreach, education, and advocacy on behalf of sexually diverse individuals. These efforts will ideally lead to a more accepting society of sexual diversity in general, hopefully creating a greater overall feeling of belonging as sexual minorities go about their lives in the campus and local communities, thereby overwhelmingly decreasing experienced psychological distress.
REFERENCES


Alarie, M., & Gaudet, S. (2013). “I don’t know if she is bisexual of if she just wants to get attention”: Analyzing the various mechanisms through which emerging adults invisibilize bisexuality. *Journal of Bisexuality, 13*(2), 191-214.


doi: 10.1016/j.jad.2013.05.087

doi:10.1016/j.jesp.2017.02.003

doi:10.1080/00918369.2016.1196994

doi: 10.1080/15299716.2013.755730


doi: 10.1037/amp0000122


APPENDIX A

PARTICIPANTS’ REPORTED STATE
OF RESIDENCE
Table 5

*Participants’ Reported State of Residence*

<table>
<thead>
<tr>
<th>State</th>
<th>N</th>
<th>% of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>California</td>
<td>10</td>
<td>7.9</td>
</tr>
<tr>
<td>Colorado</td>
<td>5</td>
<td>3.9</td>
</tr>
<tr>
<td>Connecticut</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>Florida</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>Georgia</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Illinois</td>
<td>11</td>
<td>8.7</td>
</tr>
<tr>
<td>Iowa</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Kansas</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Kentucky</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Louisiana</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Maryland</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>20</td>
<td>15.7</td>
</tr>
<tr>
<td>Michigan</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Minnesota</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>Missouri</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>Nebraska</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Nevada</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>New Jersey</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>New Mexico</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>New York</td>
<td>20</td>
<td>15.7</td>
</tr>
<tr>
<td>North Carolina</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Ohio</td>
<td>4</td>
<td>3.1</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>Ontario, Canada</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Quebec, Canada</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Tamaulipas, Mexico</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Tennessee</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>Texas</td>
<td>11</td>
<td>8.7</td>
</tr>
<tr>
<td>Virginia</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Washington</td>
<td>7</td>
<td>5.5</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>1</td>
<td>0.8</td>
</tr>
</tbody>
</table>

*Note. N = 127.*
APPENDIX B

NEBRASKA OUTNESS SCALE (NOS)
(Meidlinger & Hope, 2014)
Nebraska Outness Scale (NOS)

*NOS-D: What percent of the people in this group do you think are aware of your sexual orientation (meaning they are aware of whether you consider yourself straight, gay, etc)?*

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of your immediate family (e.g., parents and siblings)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members of your extended family (e.g., aunts, uncles, grandparents, cousins)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People you socialize with (e.g., friends and acquaintances)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People at your work/school (e.g., coworkers, supervisors, instructors, students)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers (e.g., someone you have a casual conversation with in line at the store)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(See next page for NOS-C)
**NOS-C: How often do you avoid talking about topics related to or otherwise indicating your sexual orientation (e.g., not talking about your significant other, changing your mannerisms) when interacting with members of these groups?**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Half of the Time</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of your immediate family (e.g., parents and siblings)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members of your extended family (e.g., aunts, uncles, grandparents, cousins)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People you socialize with (e.g., friends and acquaintances)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People at your work/school (e.g., coworkers, supervisors, instructors, students)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers (e.g., someone you have a casual conversation with in line at the store)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

ROSENBERG SELF-ESTEEM SCALE (RSES)
(Rosenberg, 1965)
Rosenberg Self-Esteem Scale (RSES)

The questions below ask that you indicate how you generally feel about yourself. Please respond to each statement by selecting a number to indicate how much you agree or disagree with the following statements.

1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

1. I feel that I’m a person of worth, at least on an equal plane with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times.
10. At times I think I am no good at all.
APPENDIX D

GENERAL BELONGINGNESS SCALE (GBS)
(Malone, 2011; Malone et al., 2012)
General Belongingness Scale (GBS)

Instructions: Here are some statements with which you may or may not agree. Using the key listed below, rate the responses that most closely reflects your feelings about each statement.

   Strongly Somewhat Somewhat Strongly

1. I feel connected with others.
2. I fit amongst my friends and family.
3. When I am with other people, I feel like a stranger.
4. Because I don’t belong, I feel distant during the holiday season.
5. I have a place at the table with others.
6. I have close bonds with family and friends.
7. I feel isolated from the rest of the world.
8. I feel like a social outcast.
9. When I am with other people, I feel included.
10. I feel accepted by others.
11. I feel as if people don’t care about me.
12. I feel like an outsider.
APPENDIX E

HOPKINS SYMPTOM CHECKLIST – 21 (HSCL-21)
(Green et al., 1988)
Hopkins Symptom Checklist – 21 (HSCL-21)

Instructions: How have you felt during the past seven days including today? Use the following scale to describe how distressing you have found these things over this time.

1. Difficulty in speaking when you’re excited
2. Trouble remembering things
3. Worried about sloppiness or carelessness
4. Blaming yourself for things
5. Pain in the lower part of your back
6. Feeling lonely
7. Feeling blue
8. Your feelings being easily hurt
9. Feeling others do not understand you or are unsympathetic
10. Feeling that people are unfriendly or dislike you
11. Having to do things very slowly in order to be sure you’re doing them right
12. Feeling inferior to others
13. Soreness of your muscles
14. Having to check and double check what you do
15. Hot or cold spells
16. Your mind going blank
17. Numbness or tingling in parts of your body
18. A lump in your throat
19. Trouble concentrating
20. Weakness in parts of your body
21. Heavy feelings in your arms and legs
APPENDIX F

DEMOGRAPHIC QUESTIONNAIRE
Demographic Questionnaire

1. What is your age?

2. What is your current self-identified gender?

3. What is your self-identified sexual orientation? (Note: Some of you may prefer to use labels not available below to describe your sexual orientation, but please select an orientation from the following that most closely matches your emotional, romantic, and/or sexual attractions, behaviors, and/or relationships.)
For the purposes of this study, the following definitions will be used: gay = a self-identified man who demonstrates any of the above social patterns for another man; lesbian = a self-identified woman who demonstrates any of the above social patterns for another woman; bisexual = a self-identified man or woman who demonstrates any of the above social patterns for both men and women
   a. Gay
   b. Lesbian
   c. Bisexual

4. Which of the following categories below do you feel best describes your race or ethnicity?
   a. Caucasian/Non-Hispanic
   b. African-American/Black
   c. American Indian or Alaskan Native
   d. Pacific Islander
   e. Latino/a or Hispanic
   f. Asian
   g. Multi-racial/multi-ethnic
   h. I prefer not to respond

5. Are you:
   a. An undergraduate student
   b. A Master’s degree student
   c. A doctoral student

6. What is your annual household income? (Please include student loans, work study, graduate assistantships, etc. in this estimate)
   a. Less than $15,000
   b. $15,000 to <$25,000
   c. $25,000 to <$50,000
   d. $50,000 to <$75,000
   e. $75,000 to <$100,000
   f. $100,000 or more

7. What state do you currently reside in?
APPENDIX G

UNIVERSITY OF NORTHERN COLORADO
INSTITUTIONAL REVIEW
BOARD APPROVAL
DATE: December 9, 2016
TO: Rachel Haug
FROM: University of Northern Colorado (UNCO) IRB
PROJECT TITLE: [869136-1] Perceived Belongingness, Self-Esteem, and Outness Level on Psychological Distress Among Lesbian, Gay, and Bisexual Individuals
SUBMISSION TYPE: New Project
ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS
DECISION DATE: December 9, 2016
EXPIRATION DATE: December 9, 2020

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Rachel -

Thank you for your patience with the UNC IRB process. Your IRB application is exceptionally well-prepared and there are no requests for additional materials or amendments/modifications to the submitted materials or protocols. You are commended for inclusion of thorough recruitment materials and for provision of mental health resources in case participants need referrals. Your research is verified/approved exempt and you may begin participant recruitment and data collection.

Best wishes with your dissertation research.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

We will retain a copy of this correspondence within our records for a duration of 4 years.

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

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

RECRUITMENT EMAIL FOR LISTSERVS
Recruitment Email for Listservs

Dear Prospective Participant,

My name is Rachel Haug and I am a 5\textsuperscript{th} year doctoral student in the Counseling Psychology program at the University of Northern Colorado. I am currently conducting a study for my dissertation that examines the role of perceived belongingness on psychological distress after already assessing one’s sexual orientation, ethnicity, socioeconomic status, self-esteem and outness level among lesbian, gay, and bisexual individuals. This study has received Institutional Review Board (IRB) approval through the University of Northern Colorado (Approval Number 989138-1). Your participation will directly help me in obtaining my doctoral degree, so thank you in advance.

I would like to invite you to participate in this 10-minute online survey if you (a) are 18 years or older, (b) are an undergraduate or graduate student, and (c) self-identify as lesbian, gay, or bisexual. I recognize there are multiple other terms one may identify as (e.g., dyke, pansexual, queer, questioning). Gay, lesbian, and bisexual are the chosen identifiers specifically used for research analysis purposes in the current study. I would greatly appreciate your participation in this important research, but only if you feel you can stay true to yourself.

By participating in this salient research, you will have the opportunity to enter your email address into a drawing to win one of four $25 Darden restaurants (e.g., Red Lobster, Olive Garden) gift cards through a different survey as a sign of my appreciation.

If you would like to participate, please follow the following link to learn more and begin.

\underline{\textbf{Survey Link}}

Your participation is completely anonymous. If you have any questions, please feel free to email me at haug4845@bears.unco.edu. Your email will be kept confidential and will not be linked to your survey answers in any way if you choose to participate.

Thank you for your time and consideration.

Sincerely,

Rachel Haug
Counseling Psychology Doctoral Student
University of Northern Colorado
APPENDIX I

RECRUITMENT EMAIL FOR RESOURCE CENTER DIRECTORS
Recruitment Email for Resource Center Directors

Dear [Site/Director],

My name is Rachel Haug and I am a 5th year doctoral student in the Counseling Psychology program at the University of Northern Colorado. I am currently conducting a study for my dissertation that examines the role of perceived belongingness on psychological distress after already assessing one’s sexual orientation, ethnicity, socioeconomic status, self-esteem and outness level among lesbian, gay, and bisexual individuals. This study has received Institutional Review Board (IRB) approval through the University of Northern Colorado (Approval Number 989138-1).

I’m wondering if you would be willing to assist me in reaching potential participants for this important research by forwarding this request along to members of your organization through email and/or by posting this invitation somewhere in your main office area or on your website. Any assistance you can provide will directly aid in the attainment of my doctorate, so thank you in advance.

Eligibility requirements for the 10-minute online survey are as follows: (a) 18 years or older, (b) undergraduate or graduate student, and (c) self-identification as lesbian, gay, or bisexual. I recognize there are multiple other terms one may identify as (e.g., dyke, pansexual, queer, questioning). Gay, lesbian, and bisexual are the chosen identifiers specifically used for research analysis purposes in the current study. I would greatly appreciate the members of your organization to participate in this salient research, but only if they feel they can stay true to themselves.

By participating in this study, individuals will have the opportunity to enter their email address into a drawing to win one of four $25 Darden restaurants (e.g., Red Lobster, Olive Garden) gift cards through a different survey as a sign of my appreciation.

If someone would like to participate, please have them follow the following link to learn more and begin.

Survey Link

Participation is completely anonymous. If you, or any of the possible participants, have any questions for me, please feel free to email me at haug4845@bears.unco.edu. Your email will be kept confidential and will not be linked to survey answers in any way if you/they choose to participate.

Thank you for your time and consideration.

Sincerely,

Rachel Haug
Counseling Psychology Doctoral Student
University of Northern Colorado
APPENDIX J

CONTACTED COLLEGES AND UNIVERSITIES
FOR RECRUITMENT
20 Top Public Universities contacted
University of Michigan – Ann Arbor, MI
University of California – Los Angeles, CA
University of Virginia – Charlottesville, VA
University of Texas – Austin, TX
Virginia Tech – Blacksburg, VA
University of North Carolina – Chapel Hill, NC
Georgia Institute of Technology – Atlanta, GA
University of Illinois at Urbana-Champaign – Champaign, IL
University of Wisconsin – Madison, WI
College of William and Mary – Williamsburg, VA
University of Florida – Gainesville, FL
Penn State – University Park, PA
Ohio State University – Columbus, OH
Colorado School of Mines – Golden, CO
Texas A&M University – College Station, TX
Purdue University – West Lafayette, IN
University of California – Santa Barbara, CA
University of Georgia – Athens, GA
University of Washington, Seattle, WA
University of Minnesota, Twin Cities – Minneapolis, MN

20 Best Liberal Arts Colleges contacted
Bowdoin College – Brunswick, ME
Pomona College – Claremont, CA
Washington & Lee University – Lexington, VA
Carleton College – Northfield, MN
Colgate University – Hamilton, NY
Williams College – Williamstown, MA
Amherst College – Amherst, MA
Barnard College – New York, NY
Haverford College, Haverford, PA
Harvey Mudd College – Claremont, CA
Claremont McKenna College – Claremont, CA
Middlebury College – Middlebury, VT
Swarthmore College – Swarthmore, PA
Bates College – Davidson, NC
Colby College – Waterville, ME
Hamilton College – Clinton, NY
University of Richmond – Richmond, VA
Grinnell College – Grinnell, IA
Reed College – Portland, OR
Wellesley College – Wellesley, MA
APPENDIX K

INFORMED CONSENT
CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH

**Project Title:** Perceived Belongingness, Self-Esteem, and Outness Level on Psychological Distress Among Lesbian, Gay, and Bisexual Individuals

**Researcher:** Rachel Haug, Department of Applied Psychology and Counselor Education
Email: haug4845@bears.unco.edu

**Research Advisor:** Basilia Softas-Nall, Ph.D., Department of Applied Psychology and Counselor Education
Phone: 970-351-1631; Email: basilia.softas-nall@unco.edu

**Project Description:** The purpose of this study is to assess the role that perceived belongingness plays in psychological distress among lesbian, gay, and bisexual individuals after already accounting for a variety of other variables. You will be asked to complete questions regarding some demographic information, level of sexual orientation outness, self-esteem, sense of belonging, and any experienced psychological distress. The survey should take about 10 minutes to complete. At no point will you be asked to provide your name. Instead, data will be assigned random numbers and any results will be reported through numerical form only. Therefore, you will never be identified, and your responses will not be able to be traced back to you. At the end of the questionnaire, you will have the option to participate in a raffle for one of four $25 Darden restaurants (i.e., Red Lobster, Olive Garden) gift cards. If you choose to participate in the raffle, a separate survey will ask you for a current email address. All emails will be held confidential and will not be able to be linked back to certain responses on the original survey.

**Eligibility:** You are invited to participate in the study if you (a) are 18 years or older, (b) are an undergraduate or graduate student, and (c) self-identify as lesbian, gay, or bisexual. Some potential participants may prefer to use labels other than lesbian, gay, and bisexual to describe their sexual orientation (e.g., dyke, pansexual, queer, questioning). For the purposes of this research attempting to parse out unique experiences for lesbian, gay, and bisexual individuals, the use of these terms in this survey serves as a convenience, and the researcher asks for your understanding if the terms do not completely capture your sexual identity.

**Potential Risks of the Study:** Potential risks in this project are minimal. As with any similar study, you may experience mild discomfort in answering questions directly pertaining to your level of sexual orientation outness, self-esteem, sense of belongingness, and any experienced psychological distress. It is not believed that this
possible degree of discomfort will be substantially greater than what may be usually encountered in daily life. You have the right to pause or discontinue the survey at any time and for any reason. Appropriate mental health support resources are included at the end of the survey in the event that you decide to access such support.

**Potential Benefits of this Study:** You are not expected to benefit directly from this study, but your participation may have indirect benefit. More specifically, your responses will add to the psychological research assessing how several variables relate to psychological distress among sexual minority individuals, along with evaluating belongingness as a possible protective factor against psychological distress. A better understanding of scientific underpinnings of psychological distress will ideally allow for enhanced psychological prevention, intervention, and advocacy.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please complete the questionnaires if you would like to participate in this research. By completing the questionnaires, you will give us permission for your participation. You may print this form for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

By clicking the next button “>>”, you are indicating that you understand your rights as a research participant and agree to participate in this study.
APPENDIX L

ELIGIBILITY SCREENING QUESTIONS
Eligibility Screening Questions

Are you at least 18 years old? ___Yes ___No

Are you at least a part-time undergraduate or graduate student? ___Yes ___No

Do you self-identify as any of the following: lesbian, gay, or bisexual? ___Yes ___No
APPENDIX M

THANK YOU PAGE: INELIGIBLE
Thank You Page: Ineligible

Thank you for your interest in this research study! Unfortunately, you do not currently meet the eligibility requirements in order to participate. If you have any questions regarding your status, please do not hesitate to contact Rachel Haug at haug4845@bears.unco.edu or (320) 493-7291.

Thank you again!
APPENDIX N

PERMISSION TO USE NEBRASKA OUTNESS SCALE (NOS)
Permission to use Nebraska Outness Scale (NOS)

From: Debra Hope <dhope1@unl.edu>
Sent: Monday, August 22, 2016 8:47:25 AM
To: Haug, Rachel
Subject: RE: Nebraska Outness Scale question

Hi Rachel
You have our permission to use the Nebraska Outness Scale for your dissertation research. Good luck with your interesting project. I love it when people look at a positive factor for our community for a change!
Deb

Debra A. Hope, Ph.D.
Department of Psychology
University of Nebraska-Lincoln

From: Haug, Rachel [mailto:haug4845@bears.unco.edu]
Sent: Saturday, August 20, 2016 4:50 PM
To: Debra Hope <dhope1@unl.edu>
Subject: Nebraska Outness Scale question

Hello Dr. Hope,

My name is Rachel Haug and I am a fifth year doctoral student in the Counseling Psychology PhD program at the University of Northern Colorado. I am working on my dissertation and am extremely interested in perceived belongingness as a possible protective factor in the LGBTQ community. Needless to say, I am impressed by the work you have done with the NOS and I am hoping to use it in my own personal study.

I see that in the PsycTests database, electronic methods are approved, but I'm curious if I can receive email verification that this also includes Qualtrics distribution methods, since it is general practice for UNC dissertations to include copies of granted permission to use the chosen measures.

Thank you for your time and consideration. I look forward to your response!
Rachel

Rachel Haug
Doctoral Student in Counseling Psychology
University of Northern Colorado
haug4845@bears.unco.edu
APPENDIX O

PERMISSION TO USE GENERAL BELONGINGNESS SCALE (GBS)
Permission to use General Belongingness Scale (GBS)

From: Glenn Malone <glennpm2662@gmail.com>
Sent: Monday, February 01, 2016 3:27 PM
To: Haug, Rachel
Cc: david.pillow@utsa.edu
Subject: Re: General Belongingness Scale Question

Hello Rachel,

The GBS is available for your use for research purposes. Good luck with your research.
Best,
Glenn

From: Haug, Rachel [mailto:haug4845@bears.unco.edu]
Sent: Wednesday, January 20, 2016 10:30 PM
To: glennpm2662@gmail.com
Cc: David Pillow
Subject: General Belongingness Scale Question

Hello Dr. Malone and Dr. Pillow,
My name is Rachel Haug and I am a fourth year doctoral student in the Counseling Psychology PhD program at the University of Northern Colorado. I am in the very beginning stages of my dissertation and am extremely interested in perceived belongingness as a possible protective factor in the LGBT community. Do I have your permission to use the GBS in its original form in an online format via Qualtrics for my dissertation? I am in need documentation that this would, in fact, be OK with the creators.

Thank you for your consideration,
Rachel

Rachel Haug, BA
Doctoral Student in Counseling Psychology
University of Northern Colorado
haug4845@bears.unco.edu
APPENDIX P

PERMISSION TO USE HOPKINS SYMPTOM CHECKLIST – 21 (HSCL-21)
Permission to use Hopkins Symptom Checklist – 21 (HSCL-21)

From: Tony Taylor <Tony.Taylor@vuw.ac.nz>
Sent: Saturday, September 10, 2016 5:28:26 PM
To: Haug, Rachel; Matt Crawford
Cc: Frank Walkey
Subject: Re: Hopkins Symptom Checklist-21 Question

By all means use the Hopkins 21, Rachel. It has been proved a sturdy sound measure in many critical clinical and cross-cultural circumstances in which English is a language in common use. ..and Frank Walkey was so painstaking in his item analysis.

If you have a multi-cultural population, you might find it necessary to get the items translated into equivalents .....

All the best

Tony T

A.J.W.Taylor PhD
Emeritus Professor of Psychology
Victoria University of Wellington, NZ


From: Matt Crawford <Matt.Crawford@vuw.ac.nz>
Sent: Monday, September 5, 2016 11:57:07 PM
To: Haug, Rachel
Cc: Frank Walkey; Tony Taylor
Subject: Re: Hopkins Symptom Checklist-21 Question

Hi Rachel,
Frank and Tony are Emeritus, but are around from time to time. I have ccd them on this email just in case either might still use their VUW accounts. I don't imagine that either would have a problem with your use of the scale for research purposes. 
May your yaks be ever plentiful,
-matt

From: Haug, Rachel
Sent: Tuesday, 6 September 17:27
Subject: Hopkins Symptom Checklist-21 Question
To: Matt Crawford
Hello Dr. Crawford,

My name is Rachel Haug and I am a fifth year doctoral student in the Counseling Psychology PhD program at the University of Northern Colorado, USA. I am working on my dissertation and am extremely interested in perceived belongingness as a possible protective factor in the LGBTQ community. I am looking at using the Hopkins Symptom Checklist -21, but am having difficulty tracking down the authors for permission to use the scale via Qualtrics distribution methods. Is Dr. Frank Walkey, Dr. Dianne Green, or Dr. Antony Taylor still employed at Victoria University of Wellington by chance? If not, can you point me in the direction of someone who can give me permissions to use this measure? I do see in the PsycTests database that this measure is approved to be used for research purposes, but it states in paper format. I want to verify it is OK to use in an online format as well. Also, it is general practice at my school for dissertations to include copies of granted permission to use the chosen measures (over and above PsycTests permissions).

Thank you for your time and assistance. I look forward to your response!

Rachel

Rachel Haug
Doctoral Student in Counseling Psychology
University of Northern Colorado
haug4845@bears.unco.edu
APPENDIX Q

PERSONAL COMMUNICATION re: ROSENBERG
SELF-ESTEEM SCALE (RSES)
Personal Communication re: Rosenberg Self-Esteem Scale (RSES)

From: Stephanie Budge <stephaniebudge525@gmail.com>
Sent: Wednesday, September 7, 2016 11:54 AM
To: Haug, Rachel
Subject: Re: Question regarding a self-esteem scale used in a recent publication

Hi Rachel,

The measure is widely available, so we just used the measure in the format it is provided in (we transferred it to Qualtrics, but in the same format). Let me know if you have questions about this!

Stephanie

On Tue, Sep 6, 2016 at 11:20 PM, Haug, Rachel <haug4845@bears.unco.edu> wrote:
Hello Dr. Budge,

My name is Rachel Haug and I am a fifth year doctoral student in the Counseling Psychology PhD program at the University of Northern Colorado. I am working on my dissertation and extremely interested in assessing perceived belongingness as a possible protective factor in the LGBTQ community after already accounting for a variety of related factors. Needless to say, I was impressed with your recent work regarding belongingness in the transgender community.

I was curious how you went about receiving permission, if at all, to use the RSES in an online format. I do see that in the PsycTests database there are permissions spelled out for the measure, but I do not see anything about an online format specifically.

Thank you for your time and assistance,
Rachel

Rachel Haug
Doctoral Student in Counseling Psychology
University of Northern Colorado
haug4845@bears.unco.edu
APPENDIX R

PSYCTESTS PERMISSION TO USE ROSENBERG SELF-ESTEEM SCALE (RSES)
PsycTESTS Permission to use Rosenberg Self-Esteem Scale (RSES)

**Rosenberg Self-Esteem Scale**
Version Attached: Full Test

PsycTESTS Citation:

Instrument Type:
Rating Scale

Test Format:
4-point response format ranging from strongly disagree to strongly agree.


Permissions: Test content may be reproduced and used for non-commercial research and educational purposes without seeking written permission. Distribution must be controlled, meaning only to the participants engaged in the research or enrolled in the educational activity. Any other type of reproduction or distribution of test content is not authorized without written permission from the author and publisher. Always include a credit line that contains the source citation and copyright owner when writing about or using any test.

PsycTESTS™ is a database of the American Psychological Association
doi: 10.1037/t01038-000
APPENDIX S

THANK YOU PAGE AND RESOURCES
Thank You Page and Resources

Thank you for participating! By clicking the next button “>>” you will submit your responses.

You will also be redirected to the raffle page. If you would like to be included in the raffle for a chance to win one of four $25 Darden restaurants (i.e., Red Lobster, Olive Garden) gift cards, you will be asked to enter your name and email address. Please note that this is a separate survey and your responses will not be linked to your personal information should you choose to participate in the raffle. Thank you again for participating!

Resources

If you feel that you would like to talk to someone further about your experiences with belongingness, sexual identity and/or mental health concerns, below is a list of national resources for you to contact who can then help you narrow down your search to a specific geographical region.

**National Suicide Prevention Lifeline: 1-800-273-TALK (8255)**
Suicide hotline, 24/7 free and confidential, nationwide network of crisis centers. Online chat also available.
http://www.suicidepreventionlifeline.org/

**The Trevor Project: 866-488-7386**
The Trevor Project is the leading national organization providing crisis intervention and suicide prevention services to lesbian, gay, bisexual, transgender and questioning (LGBTQ) young people ages 13-24.

**The Gay, Lesbian, Bisexual and Transgender National Hotline: (888) 843-4564**
The GLBT National Youth Talkline (youth serving youth through age 25): 800-246-7743
Both provide telephone, online private one-to-one chat and email peer-support, as well as factual information and local resources for cities and towns across the United States.

**Crisis Text Line: Text START to 741-741**
Crisis Text Line is free, 24/7 support for those in crisis. Text from anywhere in the USA to text with a trained Crisis Counselor.

**Psychology Today**
Locate a mental health professional in your area
https://www.psychologytoday.com/
NAMI
NAMI is the National Alliance on Mental Illness, the nation’s largest organization for people with mental health difficulties and their families having affiliates in every state and in more than 1,100 local communities across the country. NAMI provides support, education, and advocacy.

www.nami.org
Helpline: 1-800-950-6264