Risk and Protective Factors for Negative Psychological Outcomes in LGBTQ+ Individuals

Emalee Kerr
University of Central Florida

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RISK AND PROTECTIVE FACTORS FOR NEGATIVE PSYCHOLOGICAL OUTCOMES IN LGBTQ+ INDIVIDUALS

by

EMALEE KERR
B.S. Adrian College, 2019

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts
in the Department of Psychology
in the College of Sciences
at the University of Central Florida
Orlando, FL

Spring Term
2022

Major Professor: Steven L. Berman, Ph.D.
ABSTRACT

Previous research suggests that suicide is more prevalent among those in the LGBTQ+ community (Abelson et al., 2006), and they are also more likely to experience bullying and psychological symptoms while less likely to have adequate social support. Although many studies have examined risk factors for suicidality, the current study aimed to compare the impact of the risk factors among those in the LGBTQ+ community with those who are not. Further, this study examined the role of identity in conjunction with these other risk and protective factors. College students ($N = 501$) completed an anonymous online survey battery. Suicidality was significantly correlated with microaggressions, childhood bullying, internalized symptoms, identity distress, and negatively correlated with social support. Close to a third of the sample (31%) identified as LGBTQ+, which was higher than anticipated and may be reflective of recent changes in young people being more open to exploring their gender and sexuality than in the past. Those who identified as LGBTQ+ experienced greater suicidality and other risk factors, including identity distress, suggesting that despite the fact that identifying as LGBTQ+ is becoming more common, the risk factors for negative adjustment still remain.
ACKNOWLEDGMENTS

First and foremost, I would like to thank my mentor and advisor Dr. Steven Berman who guided me through this process. I am grateful for your endless time, energy, and knowledge. You have answered my emails at extreme hours and met with me on zoom at a moment’s notice, and for that I am incredibly grateful. You have provided me a solid foundation to be successful in my future research endeavors.

I would also like to thank the other members of my thesis committee, Dr. Jessica Waesche and Dr. Karen Mottarella for their guidance and support.
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CHAPTER ONE: INTRODUCTION

According to the American Foundation for Suicide Prevention, suicide is the tenth leading cause of death in the United States (2021). While this is a common issue across many demographics, previous research suggests that suicide is more prevalent in those who are lesbian, gay, bisexual, or queer/questioning (LGBTQ+; Abelson et al., 2006). Recent surveys by The Trevor Project, a foundation aimed to lower rates of suicide among those who are LGBTQ+, found that 40% of participants, all of whom are LGBTQ+, had “seriously considered” attempting suicide in the past year (The Trevor Project, 2020).

Previous research includes many variations of the LGBTQ+ population. For example, some include only those who are LGB. In this thesis, the population will be referred to with the label used in each specific study, as to not be deceptively over or underinclusive. Previous research has attempted to determine what factors contribute to the increased or decreased risk of suicide in the LGBTQ+ population. One study found that experiencing sadness or negative feelings tended to impact those of LGBTQ+ status more than their straight peers and led to more suicidal ideations (Abelson et al., 2006). In addition to this finding, many other studies have examined both risk factors and protective factors, e.g., social support, microaggressions/bullying, and identity distress (Ellis, 2009; Wright & Perry, 2006; Gibbs & Goldbach, 2015;).

Social support has been found to be an effective protective factor for suicidality in the general population (Kleiman & Lui, 2013). Research specific to LGBT youth suggests that family social support acts as a protective factor against negative mental health outcomes (e.g., internalized symptoms, substance use, suicide ideations; McConnell et al., 2015). Bullying has been shown to increase likelihood of suicide attempts and ideations in the general population (Bannink et al., 2014). LeVasseur and colleagues (2013) found that those in the LGBTQ+
community were more likely to both report bullying and to report having psychological distress. This raises the question of whether the psychological distress is fully due to the bullying or if other factors are involved.
CHAPTER TWO: LITERATURE REVIEW

Previous research found that those who are LGBTQ+ tend to have more negative outcomes including self-harm, mental health symptomology, suicidal ideation, and suicide attempts (Abelson et al., 2006; Almeida et al., 2009; Arnasson et al., 2015; Björkenstam et al., 2016). While many studies have found this relationship between LGBTQ+ and suicide attempts, Arnasson and colleagues (2015) specifically found an astounding 40% of lesbian and bisexual girls had attempted suicide at least once and an additional 5% had attempted five or more times, while 7% of heterosexual girls had attempted suicide. In gay and bisexual boys, 20% had attempted suicide between one and four times, and an additional 20% attempted five or more times, compared to 5% of heterosexual boys who had attempted suicide in their lifetime. Russell and Joyner (2001) found that even with risk factors considered across both groups, those in the LGB community were still more than twice as likely to experience suicidality. They also found the group most likely to experience suicidality were girls who were romantically attracted to girls but did not use the title of lesbian (this group largely consisted of bisexual girls).

While much of the research has focused on the difference between heterosexuals and non-heterosexuals, little research has been done on differences within the LGBTQ+ population. One study focused on suicidality and depression in bisexuals compared to homosexuals. Björkenstam and colleagues (2016) found that in terms of non-suicidal self-harm, LGB people were more likely to self-harm. Additionally, they found that bisexual women were the most likely of all groups to self-harm and to have recurrent instances of having to seek medical attention for their self-harm. However, this study did not examine any potential risk or protective factors.
Social Support

Previous research has examined the relationship between social support and mental health. One study with a sample of college students found that those with higher quality social support were less likely to have internalized psychological symptoms. Those with low quality social support were six times more likely to have depressive symptoms (Hefner & Eisenberg, 2009). Specific to suicide risk, social support has been shown to mediate the relationship between suicide risk and impulsivity (Kleiman et al., 2012). Kleiman and colleagues found that in those with low social support, impulsivity was highly correlated with suicide risk, but for those with high social support, suicide risk was the same regardless of impulsivity. Both of these studies highlight the importance of social support as a protective factor for overall mental health and suicide risk.

Social support is a prevalent issue in the LGBTQ+ community. LGBTQ+ individuals risk being ostracized for their sexuality. Padilla and colleagues (2010) found that LGB participants who reported higher levels of support from their parents experienced less overall stress and less drug usage. Those with parents who had religion-based homophobia were found to have higher levels of chronic suicidal ideations in which they thought about suicide every day (Gibbs & Goldbach, 2015). Interestingly, these participants were college-aged, and none lived at home with their parents. This study shows the life-long impact of parents who are unsupportive of their children in the LGBTQ+ community.

Eisenberg and Resnick (2006) found LGB students were less likely to have the protective factors of either social support or feeling safe at school. When social support was accounted for, LGB students were still more likely to experience suicidal ideations than straight students, but the gap started to close. This study suggests that social support is a fairly effective protective factor, but does not account for all variability, and sexual orientation is still an important factor.
to consider. Thus, it is important to try to control for protective factors in order to get a more accurate idea of the degree to which suicidality is attributable to risk or protective factors.

**Bullying and Microaggressions**

Bullying is a prevalent problem and can lead to negative outcomes (Kim & Leventhal, 2008). According to one meta-analysis, bullying impacts between 9 and 54% of K-12 students, which is a very large range. Kim and Leventhal (2008) also found that across multiple studies, those who were at some point victims of bullying experienced problems such as depression, anxiety, low self-esteem, loneliness, and suicide attempts.

Previous research has shown connections between bullying and suicidality (Klomek et al., 2015). Klomek and colleagues found that those who experienced bullying in childhood were more likely to develop internalized and externalized psychological symptoms in adulthood. Additionally, they found that those who experienced childhood bullying were more likely to experience suicidal ideations in adulthood. Klomek and colleagues (2007) found similar results. Those who infrequently experienced bullying infrequently experienced higher rates of depression, and those who experienced frequent bullying demonstrated higher likelihood of depression, suicide ideations, and attempts. They also found that girls in the sample were even more likely to experience suicidality after bullying (Klomek et al., 2007).

Bullying victimization is very prevalent among those who are LGBTQ+. According to one study, 23.4% of LGBT participants had experienced bullying related to their sexuality (Ellis, 2009). One important consideration is the type of bullying. More common than physically bulling, many have experienced microaggressions such as friends making jokes about their sexuality (Ellis, 2009). Ellis found that 77.9% experienced verbal microaggressions, 47.1% experienced verbal harassment and threats, 26.5% had experienced physically violent threats,
and 8.8% experienced physical violence. One limitation of these findings was a focus on microaggressions specific to college campuses. While the current study will utilize a sample of college students, microaggressions and bullying outside of the campus will be measured.

One study on non-white, gay and bisexual men who were HIV positive found that they were bullied more frequently for their sexuality, possibly because of their HIV status (Hightow-Weidman et al., 2011). These accounts of bullying were assessed through interviews in which participants were asked about the frequency and severity of bullying. While all instances were referred to as bullying, there appeared to be many accounts of events which would be considered a microaggression (e.g., after disclosing their sexuality, peers became visibly uncomfortable). Additionally, they found that those who were bullied for their sexual orientation showed more emotional distress, measured by depressive symptomology, suicidal ideations, and suicide attempts. One limitation of this study was that the sample included only non-white gay and bisexual men who were HIV positive. Because of this sample, it was unclear if any of the depressive symptoms and suicidal ideations were due to the HIV status (Hightow-Weidman et al., 2011).

Seelman et al. (2016) conducted individualized interviews that included tailored questions about microaggressions. They assessed whether participants’ affiliation to the LGBTQ+ community was due to their gender (e.g. transgender), sexual orientation (e.g. bisexual), or both (e.g. transgender bisexual), and adjusted the microaggression scale to relate closer to their situation by specifically targeting microaggressions to their gender, sexual orientation, or both. They found that those who experienced more microaggressions also experienced lower self-esteem, more anxiety, and more perceived stress. Seelman and colleagues (2016) recruited through online social networks for those who are LGBTQ+, thus, these
participants may have been more comfortable and supported through these sites and may not be representative of those not on social networks. Recent research has found a connection between exposure to homophobia and cortisol and blood pressure levels (Huebner et al., 2021). Huebner and colleagues found that while participating in interviews, LGBTQ+ participants showed higher levels of stress evidenced by higher cortisol levels and raised blood pressure when they were being interviewed by someone who they thought was homophobic, even if the interviewer never specifically said anything homophobic. These findings suggest that experiencing homophobia can impact physical health as well as mental health.

Previous research has found that those who are LGBTQ+ are more likely to experience microaggressions and other types of bullying than those who are not (Ellis, 2009), and that such bullying can lead to suicide and other negative outcomes (Kim & Leventhal, 2008). It seems that bullying is a risk factor or a moderator between being LGBTQ+ and the negative outcomes. It is the higher prevalence of bullying in this demographic that contributes to higher levels of negative outcomes.

**Identity Distress**

Young adulthood is a time for identity development (Erikson, 1968). In his theory of psychosocial development, Erikson (1959) discussed identity versus role confusion, during which where adolescents attempt to develop a sense of identity or decide who they are. Similar to this is the Cass Model of Homosexual Identity Development (1979) that focuses more specifically on identity development that incorporates sexual orientation. During the development of identity, there is potential for distress if people cannot consolidate all parts of their identity. Those who are not heterosexual have an additional facet of their identity to
consolidate since in our heteronormative society, their identity is not the assumed norm (Rosario et al., 2008).

Theories of sexual orientation have evolved over the past few decades. Originally, theories saw sexual orientation as being either homosexual (preferring those of your own gender) or heterosexual (preferring those of the other gender) and would attribute sexuality to the gender roles that individuals exemplified (Ellis, 1936). According to this theory, women who adopt masculine roles would be homosexual, and men who would adopt feminine roles would also be homosexual. Later theories argued that individuals are actually attracted to those who have the same roles as them, as opposed to assuming the other gender’s roles (Tripp, 1975). Kinsey (1948) developed a model that utilized a fluid theory of sexual orientation. In this model, an individual could fall anywhere from zero to six, zero being strictly heterosexual, and six being strictly homosexual. This model accounts for those who may be mostly homosexual but slightly heterosexual or those who are mostly heterosexual but slightly homosexual. Even this model is missing one integral part of the scale of sexual orientation: asexuality. A measure of how attracted one is to both their same sex and the opposite sex (Storms, 1980) would place individuals into quadrants of homosexual (high in same sex, low in opposite sex), heterosexual (high in opposite sex, low in same sex), bisexual (high in both), or asexual (low in both).

Identity development is a long and complex process. Erikson (1959) suggested that various psychosocial issues, including identity are developed in age related stages throughout one’s life. The stage of adolescence is typically focused on the psychosocial crisis of identity versus role confusion. In this stage, individuals explore different roles goals, values, and behaviors, in an attempt to gain a sense of direction and purpose to their lives.
Marcia (1966) operationalized some of Erikson’s ideas to create four distinct identity statuses based on exploration and commitment to identity. Those who are in the diffusion status (low in exploration and commitment) are characterized by lack of direction in identity development while also making no effort to resolve their lack of direction. An example of this would be someone who has not yet decided a career path and is not actively trying to do so. Those who are in foreclosure (low in exploration and high in commitment) are characterized by prematurely committing to an aspect of their identity without considering other options first. An example of this would be someone who works in their parent’s business or career path without considering any other options. Those in moratorium (high in exploration and low in commitment) are characterized by those actively exploring options for their future and not yet committed to one path. An example of this would be someone who has worked many short-term jobs and is still exploring options. Those in achievement (high in exploration and commitment) are characterized by having previously explored many options for domains of their identity and are now committed to one. An example of this would be someone who had previously worked in many careers but is now committed to one.

Using the same concept of the four identity statuses from Marcia (1966), the Measure of Sexual Identity Exploration and Commitment consists of four identity statuses pertaining to the specific identity domain of sexuality. In this case, exploration would pertain to being open to new sexual experiences, including exploring one’s sexual orientation. Commitment would refer to those who are committed to their sexual preferences. Using these concepts of exploration and commitment, the same four identity statuses are created from Marcia (1966), except they are specifically targeted towards the identity domain of sexuality. For example, those high in both exploration and commitment (achieved) may have spent time exploring their sexual orientation
and have now committed to a label for their sexual orientation. An example of those who have committed to a sexuality without exploring (foreclosure) would be someone who has assumed they are straight their whole life and continue to label themselves as straight but have not spent any time considering other orientations. An example of those who are high in exploration but low in commitment (moratorium) would be someone who does not give themselves a specific label of their sexual orientation but are still actively exploring their orientation. Finally, an example of someone who is low in both (diffused) would be someone who has not spent any time exploring their sexual orientation but is also not tied to one label for their orientation. These four statuses are those that were used for the current study.

Correlational research has found that identity distress is related to mental health and psychological adjustment (Gfellner & Cordoba, 2020; Samuolis et al., 2015). Gfellner and Cordoba (2020) found that within a sample of college students, those who have higher levels of identity distress were more likely to have difficulties adjusting to college and were also more likely to experience internalized symptoms of depression, anxiety, adjustment disorders, eating problems, and substance/alcohol use. Similarly, Samuolis and colleagues (2015) found that identity distress was higher in participants who reported being diagnosed with and obtaining treatment for depression, anxiety, and substance use disorders. Specifically, within those with these diagnoses, the identity distress was exceptionally high in the identity domains of friendship and long-term goals. While previous research has shown a relationship between identity distress and psychological symptoms, there has been minimal research on the relationship between identity distress and suicide.

Those who are in the LGBTQ+ community may be at a disadvantage in this identity development process. In other minority groups, members can learn cultural norms and
acceptance within their families and friends. For example, a Hispanic adolescent would be accepted and taught Hispanic culture from their family. Those who are in the LGBTQ+ community are not necessarily given that same opportunity, and some may be shunned for their sexual orientation or gender identity. They may not have a role model in their lives to help them learn about, accept, and make their sexual orientation a part of a cohesive identity.

Identity Integration generally refers to having all parts of one’s identity consolidated, usually measured through being open and “out” to others about their sexuality and being actively involved in the LGBTQ+ community. One study found that those who had more identity integration reported less psychological distress (Rosario et al., 2011). They measured identity integration through interviews that utilized the Sexual Risk Behavior Assessment. Timing of their first sexual experiences was used as a measure of milestone development (e.g., first same sex relationship, first kiss, and so on). They found that those with better social relationships had better identity integration and less psychological distress, but it is unclear whether it is directly causational. One shortcoming of this study was the measurement of identity integration through milestone timing. Measuring milestones assumes that everyone develops through the same path, usually including self-realization of their sexual orientation, and then “coming out” or being open about their orientation. This is problematic as people may have many external reasons for not wanting to reach that final step of coming out such as fear of losing a job, and such reasons are not indicative of their identity integration. The current study will attempt to fix this shortcoming in previous literature by utilizing a measure of sexual identity exploration and commitment. On this scale, sexual identity development is measured across four subscales including exploration and commitment of their orientation as well as sexual orientation confusion and sexual identity synthesis.
Wright and Perry (2006) found that those with high levels of sexual identity distress also experienced high levels of psychological distress. Sexual identity distress was measured on a 7-item measure that asked about distress that participants felt regarding their sexual orientation. They also found that the factor that not being open or “out” to their support network correlated the strongest with level of sexual identity distress. While a growing number of studies have examined distress relating to sexual orientation, very few have measured identity distress itself.

**Rationale**

The current study aimed to examine the interaction of risk and protective factors for those in the LGBTQ+ population and how these impact negative psychological outcomes. Previous research has examined the topic of the prevalence of suicidal ideations and attempts in the LGBTQ+ population, but there appears to be a gap in controlling for risk or protective factors. Many studies that have attempted to control for these extraneous factors have only measured one factor at a time. People are multifaceted and do not only feel the effects of one variable at a time, so it may be beneficial to look at the interaction of multiple factors. Therefore, social support, microaggressions, bullying, and identity distress were examined to determine their relative influence on the relationship between sexual orientation and negative outcomes. It was predicted that when those variables are controlled for, sexual orientation will no longer predict mental health problems (including suicidality).

Previous research has been heavily focused on those who are non-heterosexual and comparing them to those who are heterosexual. There appears to be a gap in the literature in regard to examining variation within the LGBTQ+ population. Another limitation of previous research is that most studies have used categorical measurements of sexual orientation. The
current study examined the differences between sexual orientations using both categorical and continuous measures. Additionally, previous research has not covered the topic of suicidality related to identity distress.

This research contributed to the field of sexual identity development by comparing identity development to mental health problems and suicidality. It is a prevalent problem that those in the LGBTQ+ community are more likely to die by suicide, so examining the risk and protective factors will be beneficial to mental health professionals who work with LGBTQ+ individuals. By examining the relationship between identity development and suicide risk, future clinicians could utilize measures of sexual identity to assess risk of suicide and other mental health problems.

**Hypotheses**

1) Those who categorize themselves as LGBTQ+ will report more suicidal ideations and attempts than those who do not.

2) Those who categorize themselves as LGBTQ+ will report more internalized symptoms of depression, anxiety, and somatization than those who do not.

3) Those who report higher levels of identity distress will report more negative outcomes (internalized symptoms and suicide ideation).

4) Those who report having a heterosexual orientation will be more likely to be in the foreclosed sexual identity status than those reporting an alternate sexual orientation.

5) Those who report greater sexual identity uncertainty (i.e., lower sexual identity commitment) will report greater negative outcomes (internalized symptoms and suicide ideation).
6) Those who report greater sexual identity uncertainty (i.e., lower sexual identity commitment) will report greater overall identity distress.

7) Those who report being bullied will report more negative outcomes (internalized symptoms and suicide ideation).

8) Those who report higher levels of social support will report fewer negative outcomes (internalized symptoms and suicide ideation).

9) Finally, it is hypothesized that when controlling for sexual identity commitment, social support, bullying, and identity distress, the relationship between sexual orientation and negative outcomes (internalized symptoms and suicide ideation) will no longer be significant.
CHAPTER THREE: METHODOLOGY

Participants

Participants \((N = 494, M_{age} = 19.41, SD = 2.94)\) were recruited from a large metropolitan university through a psychology research participation system (SONA). The gender breakdown was 65.1% female, 29.2% male, and 5.6% other. The sexual orientation breakdown was 65.8% heterosexual, 19.2% bisexual, 9.3% gay/lesbian, and 5.7% Other. The racial/ethnicity breakdown was 47.4% White, 25.2% Hispanic/Latino, 10% Black, 9.8% Asian or Pacific Islander, and 7.6% Mixed or Other. The year in school breakdown was 55.6% Freshman, 16.2% Sophomore, 16.8% Junior, 10.8% Senior, and 0.8% Other.

Measures

A Demographic questionnaire was the first measure utilized. It included questions on age, year in school, ethnicity, gender, and sexual orientation. Sexual orientation was measured using two items assessing degree of attraction to the same sex and the opposite sex.

The Measure of Sexual Identity Exploration and Commitment (Worthington et al., 2008). The Measure of Sexual Identity Exploration and Commitment (MOSIEC) consists of 22 items across 4 subscales (commitment, exploration, sexual orientation uncertainty, and synthesis). Items are ranked on a 6-point scale ranging from 1 (very uncharacteristic of me) to 6 (very characteristic of me). An example item from the commitment subscale is “I know what my preferences are for expressing myself sexually.” An example item from the exploration subscale is “I am actively trying new ways to express myself sexually.” An example from the sexual orientation uncertainty subscale is “My sexual orientation is not clear to me.” An example item from the synthesis subscale is “my sexual orientation is compatible with all of the other aspects
of my sexuality.” The internal consistency reliability for the subscales was previously found to be .83, .87, .87, and .76 respectively (Worthington et al., 2008). In the current study, the internal consistency was found to be .80, .91, .34, and .93 respectively.

The Sexual Orientation Microaggressions Scale (Nadal, 2018). The Sexual Orientation Microaggression Scale (SOMS) consists of 24 items. The original scale utilizes 5 subscales, but two are aimed specifically towards those in the LGBTQ+ community. Since those two are not quite answerable by the straight cisgender population, only those in the LGBTQ+ population received those subscales (assumption of deviance and endorsement of gender nonconformity). The remaining three subscales were answered by all participants regardless of sexual orientation (microinvalidations, heterosexist language, and environmental microaggressions). These subscales involve ratings made on a 5-point Likert scale (Never, Rarely, Occasionally, Often, and Very Often). A sample item from the microinvalidations subscale is: “I have been told that I should stop complaining about heterosexism.” An example of an item from the heterosexist language subscale is: “I have heard the term “That’s so gay” when someone was talking about something negative.” An example item from the environmental microaggressions subscale is: “I have seen LGBTQ people portrayed positively in movies.” In a previous study, there was an overall Cronbach’s alpha of .93 for the total scale and .90 for the assumption of deviance subscale, .90 for the endorsement of gender nonconformity subscale, .93 for the microinvalidations subscale, .87 for the heterosexist language subscale, and .73 for the environmental subscale (Nadal, 2018). In the current study, the Cronbach’s alphas were .80 for assumption of deviance, .86 for endorsement of gender conformity, .92 for microinvalidations, .85 for heterosexist language and .92 for environmental microaggressions.
The Forms of Bullying Scale (Shaw et al., 2013). The Forms of Bullying Scale (FBS) consists of 10 items that are rated from 0 (this did not happen to me) to 4 (several times a week) to indicate how often a form of bullying was experienced in childhood. An example of an item from this scale would be “I was hurt by someone trying to break up a friendship.” This scale was found to have a Cronbach’s alpha of .87 (Shaw et al., 2013). In the current study, the Cronbach’s alpha was found to be .91.

The Identity Distress Scale (IDS: Berman et al., 2004) is a 10-item measure assessing distress surrounding 7 identity domains (religion, sexual orientation, goals, career choices, values, group affiliation, and friendship). The first 9 item are rated on a 5-point Likert Scale ranging from 1 (none at all) to 5 (very severe), and the final item assesses how long the distress has been occurring ranging from 1 (never or less than a month) to 5 (more than 12 months). An example of an item includes the degree to which they have felt distress about “long term goals (e.g., finding a good job, being in a romantic relationship, etc.)” The internal consistency reliability across the 7 domains was found to be .84 (Berman et al., 2004). In the current study, the internal consistency was found to be .82.

The Brief Symptom Inventory-18 (BSI-18; Derogatis & Melisaratos, 1983) uses 18 items to measure psychological symptoms across 3 subscales (somatization, depression, anxiety), which combine to form a total Global Severity Index (GSI) score. Items were rated on a 5-point Likert scale, to report frequency of experience during the past 7 days, from 1 (none at all) to 5 (extremely). An example of the somatization subscale is “faintness or dizziness.” An example of the depression subscale is “feeling blue.” Finally, an example of the anxiety subscale is “nervousness or shakiness inside.” The measure was found to have a Cronbach’s alpha of .93 for
the total GSI score (Derogatis & Melisaratos, 1983). The current study found a Cronbach’s alpha for the total GSI score of .94.

*Frequency of Suicide Ideation Inventory* (Chang & Chang, 2016). The Frequency of Suicide Ideation Inventory (FSII) consists of 6 items. An example item is “Over the past year, how often have you thought about hurting yourself?” rated on a 5-point Likert scale from 1 (*Never*) to 5 (*Almost every day*). One item will be added to assess frequency of suicide attempts. This item will read “Over the past year, how many times have you attempted suicide?” with answers rated on a 5-point Likert scale from 1 (Never) to 5 (4 or more times). The measure had a reported Cronbach’s alpha of .96 (Chang & Chang, 2016). The current study found a Cronbach’s alpha of .94.

*The Multidimensional Scale of Perceived Social Support* (Zimet et al., 1988). The Multidimensional Scale of Perceived Social Support (MSPSS) consists of 12 items addressing three sources of social support (family, friends, and significant others) rated on a 5-point Likert scale from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Examples of items include “my family really tries to help me” and “I can count on my friends when things go wrong.” This measure has been found to have an overall internal consistency reliability of .88, with an alpha of .91 for the subscale about significant others, .87 for the family subscale, and .85 for the friends subscale (Zimet et al., 1988). The current study found an overall internal consistency of .91, with an alpha of .95 for the subscale of significant others, .93 for the family subscale, and .94 for the friends subscale.

**Procedure**

This survey was submitted to the Institutional Review Board (IRB) at the University of Central Florida (UCF), where it was reviewed for approval. The survey was then uploaded in
Qualtrics and synched to SONA, which is the psychology research participation program. Students in introduction level psychology classes are required to participate in projects on SONA and receive course credit for their participation. Those who do not wish to participate in research are offered alternative assignments by their professors. SONA offers a choice of studies in which students may participate. Those that selected this study were able to take the survey anonymously online on a device and a location of their own choosing. Because of the potentially triggering nature of the suicidality questions, participants were shown resources for counseling at the conclusion of the study.
CHAPTER FOUR: RESULTS

Preliminary Analyses

Descriptive analyses are reported in Table 1. A correlation matrix was constructed for all study variables (see Table 2). The only dependent measure that correlated significantly with age was the measure of sexual identity commitment ($r = .12$, $p = .011$). To assess for gender and ethnicity differences, a 3 (gender) x 5 (ethnicity) MANOVA was run with all study variables as the dependent measures. Gender differences were found on a measure of microaggressions ($F_{(2, 474)} = 3.55$, $p = .030$), internalized symptoms ($F_{(2, 474)} = 6.34$, $p = .002$), suicidality ($F_{(2, 474)} = 5.18$, $p = .006$), identity distress ($F_{(2, 474)} = 4.90$, $p = .008$), and social support ($F_{(2, 474)} = 5.18$, $p = .006$). An LSD post hoc analysis revealed that men experienced less microaggressions and identity distress than both women and those who indicated “other.” On a measure of internalized symptoms, those who indicated their gender as “other” scored significantly higher than women who scored significantly higher than men. On a measure of suicidality, those who indicated their gender as “other” scored significantly higher than both men and women. Finally, on a measure of social support, women scored significantly higher than men. Differences between ethnic groups were found on a measure of suicidality ($F_{(4, 474)} = 4.22$, $p = .006$), with an LSD post hoc revealing that White participants scored lower than Black and Asian participants. Additionally, Asian and Black participants scored higher than Hispanic participants. There were no significant interactions. To determine if there were differences across sexual orientations, a one-way ANOVA was run with sexual orientation as the independent variable and all dependent measures as the dependent variables. The model was significant for a measure of microaggressions ($F_{(3, 462)} = 30.02$, $p < .001$), bullying ($F_{(3, 462)} = 6.81$, $p < .001$), internalized symptoms ($F_{(3, 463)} = 9.51$, $p < .001$), suicidality ($F_{(3, 462)} = 13.35$, $p < .001$), and identity distress ($F_{(3, 463)} = 7.20$, $p < .001$).
Least Squared Difference (LSD) post hoc analysis revealed that on both the measures of microaggressions and bullying, those who indicated being gay or lesbian experience the highest amount, followed by a significantly lower amount experienced by those who are bisexual and those who indicated they were an “other” sexual orientation with those who indicated being straight experiencing the least amount of microaggressions and bullying. For internalized symptoms, those who indicated being an “other” sexual orientation or bisexual experienced the highest amount, followed by those who are gay/lesbian or straight scoring significantly lower than those who indicated other. On the measure of suicidality, straight participants scored significantly lower than any other sexual orientation. Finally, on a measure of identity distress, those who indicated being an other sexual orientation scored significantly higher than any other sexual orientation, followed by those who are gay/lesbian or bisexual, then followed by those who are straight experiencing significantly less identity distress than any other group.

Main Analyses

Hypothesis 1 (Those who are LGBTQ+ will report more suicidal ideations and attempts than those who are not) was tested via independent samples t-test with LGBTQ+ as the group factor and score on the FSII as the dependent measure. This hypothesis was supported ($t_{(489)} = 6.09, p < .001$). The pattern of means was consistent with the hypothesis with a mean of 2.11 ($SD = .97$) for those participants in the LGBTQ+ community and a mean of 1.58 ($SD = .85$) for those not in the LGBTQ+ community.

Hypothesis 2 (Those who are LGBTQ+ will report more internalized symptoms than those who are not) was tested via independent samples t-test with LGBTQ+ as the group factor and Global Severity Index score on the BSI as the dependent measure. This hypothesis was
supported ($t_{(490)} = 5.12, p < .001$). Those in the LGBTQ+ community reported higher internalized symptoms ($M = 1.19, SD = .77$) than those not in the LGBTQ+ community ($M = 0.80, SD = .78$).

Hypothesis 3 (Those who have high levels of identity distress will report more negative outcomes) was tested by calculating Pearson correlation coefficients among three variables: average identity distress score from the IDS, global symptom index from the BSI, and the suicidality score from the FSII. The hypothesis was supported as identity distress was significantly correlated with both internalized symptoms ($r = .51, p < .001$) and suicidality ($r = .35, p < .001$).

Hypothesis 4 (Those who report having a heterosexual orientation will be more likely to be in the foreclosed sexual identity status than those reporting an alternate sexual orientation) was tested via a 2 (sexual orientation) x 4 (sexual identity status) Chi Square. The variable of sexual orientation was dichotomous with those who are either heterosexual or not. Hypothesis 4 was supported ($\chi^2_{(3)} = 13.68, p = .003$) with 22.4% of heterosexual individuals in foreclosure and only 9.3% of non-heterosexual individuals in foreclosure (see Table 3 for a complete breakdown).

Hypothesis 5 (Those who report greater sexual identity uncertainty (i.e., lower sexual identity commitment) will report greater negative outcomes (internalized symptoms and suicide ideation) was tested by calculating Pearson correlation coefficients among three variables: the commitment score from the MOSIEC, the global symptom index from the BSI-18, and the suicidality score from the FSII. This hypothesis was supported, in that sexual identity commitment was negatively correlated with internalized symptoms ($r = -.21, p < .001$) and suicidality ($r = -.12, p = .008$).
Hypothesis 6 (Those who report greater sexual identity uncertainty (i.e., lower sexual identity commitment) will report greater overall identity distress) was tested by calculating a Pearson correlation coefficient for the commitment score from the MOSIEC and the average distress score from the IDS. The hypothesis was supported, as identity distress was negatively correlated with sexual identity commitment ($r = -.21, p < .001$).

Hypothesis 7 (Within the LGBTQ+ population, those who report being a victim of bullying and/or microaggressions will report more negative outcomes) was tested by calculating Pearson correlation coefficients among three variables: bullying score from the FBS, Microaggression score from the SOMS, and the global symptom index from the BSI. The hypothesis was supported, as internalized symptoms were correlated with bullying ($r = .18, p = .031$) and microaggressions ($r = .47, p < .001$).

Hypothesis 8 (Those who report higher levels of social support will report fewer negative outcomes) was tested by calculating a Pearson correlation coefficient for total social support score from the MSPSS and the global symptom index from the BSI. The hypothesis was supported, as there was a negative correlation between social support and internalized symptoms ($r = -.21, p < .001$).

Hypothesis 9 (When controlling for sexual identity commitment, social support, bullying, and identity distress, the relationship between sexuality and negative outcome will no longer be significant) was tested via two stepwise multiple regression analyses. In the first regression, gender and age were entered on step one, LGBTQ+ status (yes/no) was entered on step two, and scores on the MSPSS, SOMS, FBS, IDS, commitment score on the MOSIEC entered on step three, with the global severity index from the BSI as the dependent measure. It was predicted that
LGBTQ+ status would be a significant predictor on step two but would no longer be significant on step three. On step three, the model was significant ($F_{\text{change}}(5, 459) = 38.52, p < .001$, $R^2_{\text{change}} = .27$, $F(8, 459) = 32.13, p < .001, R^2 = .36$, adjusted $R^2 = .35$) with standardized coefficients beta reaching significance for gender ($\beta = .11, t = 2.66, p = .008$), LGBTQ+ status ($\beta = -.09, t = -2.00, p = .046$), social support ($\beta = -.10, t = -2.61, p = .009$), bullying ($\beta = .20, t = 4.85, p < .001$), identity distress ($\beta = .37, t = 9.10, p < .001$), and sexual identity commitment ($\beta = -.09, t = -2.15, p = .032$). Although the hypothesis was not confirmed in that LGBTQ+ status remained a significant predictor on step three, the large reduction in significance from step two ($\beta = -.18, t = -3.82, p < .001$) to step three ($\beta = -.09, t = -2.00, p = .046$) suggests that the other factors were much larger contributors to the variance in internalized symptom score.

The regression was repeated with the score on the FSII (suicidality) as the dependent measure. On step three, the model was significant ($F_{\text{change}}(5, 459) = 15.62, p < .001$, $R^2_{\text{change}} = .13$, $F(8, 459) = 15.87, p < .001, R^2 = .22$, adjusted $R^2 = .20$) with standardized coefficients beta reaching significance for LGBTQ+ status ($\beta = -.18, t = -3.91, p < .001$), social support ($\beta = -.17, t = -3.98, p < .001$), microaggressions ($\beta = .12, t = 2.36, p = .018$), and identity distress ($\beta = .22, t = 4.78, p < .001$). The hypothesis was not confirmed. Not only did LGBTQ+ status remain a significant predictor on step three, there was no large reduction in significance (as there was in the previous regression) from step two ($\beta = -.26, t = -5.65, p < .001$) to step three ($\beta = -.18, t = -3.91, p < .001$) suggesting that the relationship between LGBTQ+ status and suicidality is not simply the result of other factors (bulling, etc.) more common to the LGBTQ+ community.
CHAPTER FIVE: CONCLUSION

There was a significant correlation between age and sexual identity commitment. While no correlation was hypothesized, this correlation was not unexpected. As people age and mature, they tend to commit to various domains of their identity (Rosario et al., 2011). This concept can also be expanded to include sexual identity. Thus, it could be predicted that as one ages, commitment to sexual identity strengthens.

Gender differences were found on measures of microaggressions, internalized symptoms, suicidality, identity distress and social support. Those who reported their gender as a third category reported the highest rates of internalized symptoms and suicidality. This could be due to experiencing higher rates of the risk factors (e.g., being bullied and experiencing more microaggressions for not conforming to the gender binary). This has also been found in several previous studies (Bannink et al., 2014; Abelson et al., 2006; Russell and Joyner, 2001). Additionally, on a measure of internalized symptoms, those who were bisexual scored higher than both those who were heterosexual and those who were homosexual. While this was not specifically predicted, one reason for this could be that those who are bisexual feel dis-included by both the straight community and also the LGBTQ+ community. Those who are gay or lesbian may think that bisexuals are just exploring and not fully part of the community, and those who are straight and cisgender may see them as only part of the LGBTQ+ community. Many previous studies compared those who were LGBTQ+ generally with those who were not, and many studies did not separate out whether their LGBTQ+ status was related to gender, sexual orientation, or both. Future research could benefit from examining these differences more closely.
Those who identified as LGBTQ+ did report higher levels of suicidality than those who did not identify as LGBTQ+. This supports the foundation of this thesis that there is still an apparent gap in rates of suicidality (Abelson et al., 2006; Gibbs & Goldbach, 2015). It is important to examine the mental health disparities in minority populations, and especially so with a topic as lethal as suicidality. While this is still consistent with previous studies, many previous studies took place before the legalization of gay marriage in America in 2015. The legalization of gay marriage seemed to change society’s view of LGBTQ+ people to generally be more accepting. In this current study, we can also see evidence for this change in public opinion evidenced by much higher numbers of young people identifying with the label of LGBTQ+. With young people being more open to exploring their sexual orientation, and more nationwide acceptance, one could hope that the negative psychological symptoms would be lessened, but that does not appear to be the case.

Aside from suicidality specifically, those who identified as LGBTQ+ also appeared to have higher levels of internalized symptoms, as expected. This pattern of results has also been seen previously (Björkenstam et al., 2016). As mentioned above, longitudinal data would be beneficial to examine the impact of the legalization of gay marriage on the psychological symptoms experienced by those who are LGBTQ+.

Internalized symptoms, suicidality, and identity distress were all positively correlated with each other. This is supported by previous research, as Gfellner and Cordoba (2020) found that college students who experience more identity distress also experience more internalized symptoms. In that study, they examined the impact of the transition to college on this relationship. In the current study, the relationship between these variables was assumed to be attributed to sexual and gender identity, but with the current study also using a college student
sample, the data becomes more complicated to tease apart. Future research could use a qualitative approach to try to gain a comprehensive understanding of how identity distress is impacted by a transition to college while exploring other domains of their identity. Furthermore, future studies should examine how the interaction of all these factors impact the psychological symptoms that college students experience.

An interesting finding of this study is the number of participants who identified as LGBTQ+, which was 31% of the current sample. While there was some selection bias due to the nature of students choosing studies on SONA systems, this is still larger than anticipated representation. It can be seen that there has been both a greater acceptance of and greater number of those identifying with more fluid genders and sexual orientations. With this change in the number of those who identify as LGBTQ+, there appears to be more acceptance, which could in turn lead to a lessening of the gap in psychological outcomes between those who are and are not LGBTQ+. With more acceptance should come less microaggressions and less bullying for being “different” from peers at young ages. Those who reported lower commitment to their sexual identity also reported lower rates of identity distress as well as higher rates of internalized symptoms and suicidality. Previous research has seen a similar trend where those who are committed to an identity experience less distress (Samuolis et al., 2015). It makes sense that these concepts are related, as those who are committed to their current sexual identity likely do not feel as much distress around their identity, which would lead to fewer negative outcomes. Because identity distress and negative outcomes were found to be related, and identity commitment should theoretically cause less distress, these findings are as expected.

Bullying and microaggressions were correlated with internalized symptoms, as expected. Previous research also supports this finding, as those who experience bullying tend to experience
higher rates of depression and anxiety (Klomek et al., 2015). Klomek and colleagues also found an interaction where females were more impacted by bullying, as evidenced by higher rates of suicidality when compared to males who are experiencing an equal amount of bullying. In the current study, women did report higher rates of suicidality and internalized symptoms when compared to men. Female participants seemed to be experiencing more instances of bullying and microaggressions, as well as more endorsement of symptoms and suicidality. Is the higher rate of suicidality explained by higher rates of risk factors alone? Klomek and colleagues’ findings suggest that this is not the case and that women may be more impacted by these experiences. This is another area that future research could examine.

Social support appears to act as a protective factor to some extent since those who report having more social support also report lower rates of internalized symptoms. This concept of social support as a protective factor has been found in many other studies (e.g., Hefner & Eisenberg, 2009; Kleiman et al., 2012). Interestingly, when the subscales of social support were utilized (significant other, friends, and family), with those who were not LGBTQ+, friends and family both appeared to act as a protective factor, but not significant others. However, for those who were LGBTQ+, all three subscales appeared to be related to lower rates of internalized symptoms.

Finally, it was found that for internalized symptoms, sexual orientation was not the sole predictor, and other factors appeared to be large contributors to explaining the variance in internalized symptoms. This is consistent with what was hypothesized that being LGBTQ+ alone does not cause internalized symptoms, but rather it is the combination of all related factors (e.g. microaggressions, bullying, identity distress, and lower levels of social support) that relate to internalized symptoms. However, on a measure of suicidality, even when controlling for all other
dependent measures, LGBTQ+ status was still a large predictor. It appears as though there are other factors associated with being LGBTQ+ that were not measured in the current study but may also be contributing significantly to suicidality. Future research should focus on examining other factors that may contribute to increased rates of suicidality such as substance use, a loss of previous social support or a workplace since coming out, or barriers to seeking help like a fear of microaggressions from medical professionals.

**Limitations and Future Research**

The current study did have some limitations due to methodology. The current study recruited from a large metropolitan university, which led to some skewed demographics (e.g., young, predominantly white female psychology students) and was not representative of the country. Given the current topic, attitudes toward and willingness to identify as LGBTQ+ differs between generations. Future research could benefit by examining these differences across age groups. Additionally, future research could benefit from longitudinal data to examine how these negative outcomes may be changing as the social climate towards those in the LGBTQ+ community change.

It should also be noted that all data analyses in the current study were correlational in nature, so causation cannot be assumed. The correlational nature of this data is a limitation because causation cannot be determined. An additional limitation could be selection bias due to the name of the study. Participants could choose which surveys to take from many options and because this study had “LGBTQ+” in the title, we may have received a skewed sample with a higher number of gender and sexual minorities.
Future research could also expand on some of the current findings by collecting qualitative data. Qualitative data could help to answer some follow up questions such as: are some people experiencing these risk factors more than other people which is leading to higher rates of psychological distress or is it that individual differences dictate how people are impacted by experienced risk factors? If the latter is true, what are these individual differences? One potential factor that could be important to this relationship would be resilience.

Despite these limitations, it can be concluded from this research that although young people are increasingly more willing to admit to being among the LGBTQ+ community, the associated risks for negative outcomes are still prevalent and need to be addressed on an individual and societal level.
APPENDIX A: IRB APPROVAL
EXEMPTION DETERMINATION

August 2, 2021

Dear Emalee Kerr:

On 8/2/2021, the IRB determined the following submission to be human subjects research that is exempt from regulation:

<table>
<thead>
<tr>
<th>Type of Review</th>
<th>Initial Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Sexual Identity Development</td>
</tr>
<tr>
<td>Investigator</td>
<td>Emalee Kerr</td>
</tr>
<tr>
<td>IRB ID</td>
<td>STUDY00003316</td>
</tr>
<tr>
<td>Funding</td>
<td>None</td>
</tr>
<tr>
<td>Grant ID</td>
<td>None</td>
</tr>
</tbody>
</table>

Documents Reviewed:
- HRP-251 Faculty Review Form.pdf, Category: Faculty Research Approval;
- HRP-255, Category: IRB Protocol;
- IRB Kerr 3316 HRP-254 EoR Updated.pdf, Category: Consent Form;
- Updated_Sexual_Identity_Development_Survey.docx, Category: Survey / Questionnaire;

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

[Signature]

Page 1 of 2
Kamille Birkbeck
Designated Reviewer
EXPLANATION OF RESEARCH

Title of Project: Sexual Identity Development

Principal Investigator: Emalee Kerr

Faculty Supervisor: Dr. Steven L. Berman

You are being invited to take part in a research study. Whether you take part is up to you.

We are interested in examining protective and risk factors in sexual identity development. You will be asked to answer questions about your sexual and gender identity as well as other factors such as experiences with bullying, microaggressions, social support, and feelings of discomfort or distress. Please be assured that your responses will be kept completely confidential and no identifiable information will be collected.

The survey should take you around 30 minutes to complete.

Your participation in this research is voluntary. You will receive SONA credits for your participation. If you choose not to participate, you can complete an alternate assignment through your psychology course. You are free to withdraw your consent and discontinue participation in this study at any time without prejudice or penalty. Your decision to participate or not participate in this study will in no way affect your relationship with UCF, including continued enrollment, grades, employment or your relationship with the individuals who may have an interest in this study.

You must be a UCF student and 18 years of age or older to take part in this research study.

ATTENTION: This survey contains questions that may cause you to reflect on past emotional events. If answering these questions has caused you to experience any kind of distress or made you feel uncomfortable in any way, please visit the UCF Counseling and Psychological Services at https://caps.sdes.ucf.edu/, or call them directly at (407) 823-2811, UCF Victim Services 24/7 number at (407) 823-1200, and/or call the National Suicide Prevention Lifeline, available 24/7 at 1-800-273-8255.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or please contact Emalee Kerr (emalee.kerr@knights.ucf.edu), Principal Investigator, or Dr. Steven Berman (steven.berman@ucf.edu), Faculty Supervisor.

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3240 or by telephone at (407) 823-2901, or email irb@ucf.edu.
APPENDIX C: TABLE 1
Table 1: Descriptive Statistics of Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Possible Range</th>
<th>Actual Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicidality</td>
<td>1.73</td>
<td>.92</td>
<td>1-5</td>
<td>1-5</td>
</tr>
<tr>
<td>Microaggressions</td>
<td>2.54</td>
<td>.90</td>
<td>1-5</td>
<td>1-5</td>
</tr>
<tr>
<td>Internalized Symptoms</td>
<td>0.92</td>
<td>.80</td>
<td>0-4</td>
<td>0-3.44</td>
</tr>
<tr>
<td>Identity Distress</td>
<td>2.41</td>
<td>.82</td>
<td>1-5</td>
<td>1-5</td>
</tr>
<tr>
<td>Social Support</td>
<td>3.96</td>
<td>.84</td>
<td>1-5</td>
<td>1-5</td>
</tr>
<tr>
<td>Bullying</td>
<td>1.61</td>
<td>.66</td>
<td>1-5</td>
<td>1-5</td>
</tr>
</tbody>
</table>
APPENDIX D: TABLE 2
Table 2: Correlation Matrix of Study Variables

<table>
<thead>
<tr>
<th></th>
<th>Suicidality</th>
<th>Microaggressions</th>
<th>Internalized Symptoms</th>
<th>Identity Distress</th>
<th>Social Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microaggressions</td>
<td>.29**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalized</td>
<td>.54**</td>
<td>.30**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptoms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity Distress</td>
<td>.35**</td>
<td>.27**</td>
<td>.51**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>-.23**</td>
<td>-.04</td>
<td>-.21**</td>
<td>-.18**</td>
<td>-</td>
</tr>
<tr>
<td>Bullying</td>
<td>.21**</td>
<td>.40**</td>
<td>.33**</td>
<td>.21**</td>
<td>-.09*</td>
</tr>
</tbody>
</table>

Note: * p < .05, ** p < .001
APPENDIX E: TABLE 3
<table>
<thead>
<tr>
<th></th>
<th>Diffused</th>
<th>Moratorium</th>
<th>Foreclosure</th>
<th>Achieved</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Straight</strong></td>
<td>4</td>
<td>8</td>
<td>65</td>
<td>233</td>
<td>310</td>
</tr>
<tr>
<td></td>
<td>1.3%</td>
<td>2.6%</td>
<td>21.0%</td>
<td>75.2%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Bisexual</strong></td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>78</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>1.1%</td>
<td>5.7%</td>
<td>4.5%</td>
<td>88.6%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Gay/Lesbian</strong></td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>40</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>4.5%</td>
<td>4.5%</td>
<td>90.9%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>3.7%</td>
<td>29.6%</td>
<td>66.7%</td>
<td>100%</td>
</tr>
</tbody>
</table>
APPENDIX F: SURVEY BATTERY
Demographics

1. Type your age: ______
2. Indicate year in school:
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior
   e. Non-degree seeking
   f. Graduate student
   g. Other
3. Select the ethnic/racial identifier that best describes you:
   a. White, non-Hispanic
   b. Black, non-Hispanic
   c. Hispanic or Latino/a
   d. Asian or Pacific Islander
   e. Native American
   f. Mixed ethnicity or other (please specify):___________
4. How would you define your gender? ____________
5. How would you define your sexual orientation? _________________
6. Do you identify as a member of the LGBTQ+ population?

Please indicate the degree to which you agree with the following:

<table>
<thead>
<tr>
<th></th>
<th>1-Disagree</th>
<th>2-Slightly disagree</th>
<th>3-Neither agree nor disagree</th>
<th>4-Slightly agree</th>
<th>5-Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am attracted to the same sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am attracted to the opposite sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To what extent do you identify with the following genders?

<table>
<thead>
<tr>
<th></th>
<th>1-Not at all</th>
<th>2-A little bit</th>
<th>3-Somewhat</th>
<th>4-Mostly</th>
<th>5-Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female/Woman/Girl</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male/Man/Boy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Measure of Sexual Identity Exploration and Commitment (MOSIEC)
Please indicate the degree to which you relate to the following statements:

<table>
<thead>
<tr>
<th>Very uncharacteristic of me</th>
<th>Uncharacteristic of me</th>
<th>Slightly uncharacteristic of me</th>
<th>Slightly characteristic of me</th>
<th>Characteristic of me</th>
<th>Very characteristic of me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

1. I have a firm sense of what my sexual needs are.
2. I know what my preferences are for expressing myself sexually.
3. I have never clearly identified what my sexual needs are.
4. I have a clear sense of the types of sexual activities I prefer.
5. I do not know how to express myself sexually.
6. I have never clearly identified what my sexual values are.
7. I am actively trying new ways to express myself sexually.
8. I can see myself trying new ways of expressing myself sexually in the future.
9. I am open to experiment with new types of sexual activities in the future.
10. I am actively experimenting with sexual activities that are new to me.
11. I am actively trying to learn more about my own sexual needs.
12. My sexual values will always be open to exploration.
13. I went through a period in my life when I was trying different forms of sexual expression.
14. I went through a period in my life when I was trying to determine my sexual needs.
15. I sometimes feel uncertain about my sexual orientation.
16. My sexual orientation is not clear to me.
17. My sexual orientation is consistent with all of the other aspects of my sexuality.
18. My sexual values are consistent with all of the other aspects of my sexuality.
19. My understanding of my sexual needs coincides with my overall sense of sexual self.

**Sexual Orientation Microaggression Scale (SOMS)**

Choose how often the following scenarios have occurred.

<table>
<thead>
<tr>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

19. I have been told I was overreacting when I confronted someone about their heterosexist behaviors/ slights.
20. I have been told that I should stop complaining about heterosexism.
21. When I thought something was heterosexist or homophobic, a heterosexual person provided alternative rationales.
32. When I thought something was heterosexist or homophobic, a heterosexual person disagreed with me.
33. Someone told me that I was oversensitive when it came to LGBTQ issues.
34. Someone has responded defensively when I pointed out their homophobic language.
35. I have been told I was being paranoid when I thought someone was being heterosexist.
36. People have made negative comments or jokes about LGBTQ people in my presence.
37. I have heard the term “That’s so gay” when someone was talking about something negative.
38. People have used terms like “fag/dyke/queer/homo” in front of me.
39. I have heard a person call someone else “gay” because she/he was “weird” or “different.”
40. People have made insensitive gay or lesbian jokes in front of me.
41. I have seen LGBTQ people portrayed positively in magazines.
42. I have seen LGBTQ people portrayed positively in movies.
43. I have seen LGBTQ people portrayed positively on television.
44. I have seen advertisements/commercials that include same sex couples.
45. Someone has tried to keep their children from coming into physical contact with me because of my sexual orientation.
46. Someone has assumed I have HIV or AIDS because of my sexual orientation.
47. Someone assumed that I would be a child molester or sexual predator because of my sexual orientation.
48. Someone has avoided sitting next to me because of my sexuality.
49. A friend has stopped talking to me after finding out about my sexuality.
50. I have been criticized about not wearing clothes that are normal for my gender.
51. I have been criticized about the way I dress because I choose clothes that are different than people of my gender.
52. I have been told to act more “masculine” or “feminine.”

**Forms of Bullying Scale (FBS)**

Before entering college, how often were you bullied (including cyberbullying) by one or more of your peers in the following ways?

<table>
<thead>
<tr>
<th>This did not happen to me/I did not do this</th>
<th>Once or twice</th>
<th>Every few weeks</th>
<th>About once a week</th>
<th>Several times a week or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

53. I was teased in nasty ways
54. Secrets were told about me to others to hurt me
55. I was hurt by someone trying to break up a friendship
56. I was made to feel afraid by what someone said he/she would do to me
57. I was deliberately hurt physically by someone and/or by a group ganging up on me
58. I was called names in nasty ways
59. Someone told me he/she wouldn’t like me unless I did what he/she said

45
60. My things were deliberately damaged, destroyed, or stolen.
61. Others tried to hurt me by leaving me out of a group or not talking to me
62. Lies were told and/or false rumors spread about me by someone, to make my friends or others not like me

**Identity Distress Scale (IDS)**

To what degree have you recently been upset, distressed, or worried over any of the following issues in your life? (Please select the appropriate response, using the following scale).

<table>
<thead>
<tr>
<th>None at all</th>
<th>Mildly</th>
<th>Moderately</th>
<th>Severely</th>
<th>Very Severely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

63. Long term goals? (e.g., finding a good job, being in a romantic relationship, etc.)
64. Career choice? (e.g., deciding on a trade or profession, etc.)
65. Friendships? (e.g., experiencing a loss of friends, change in friends, etc.)
66. Sexual orientation and behavior? (e.g., feeling confused about sexual preferences, intensity of sexual needs, etc.)
67. Religion? (e.g., stopped believing, changed your belief in God/religion, etc.)
68. Values or beliefs? (e.g., feeling confused about what is right or wrong, etc.)
69. Group loyalties? (e.g., belonging to a club, school group, gang, etc.)

**Brief Symptom Inventory-18 (BSI-18)**

Below is a list of problems people sometimes have. Read each one carefully and fill in the circle that best describes **how much that problem has distressed or bothered you during the PAST 7 DAYS including today**.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>A little bit</td>
<td>Moderately</td>
<td>Quite a bit</td>
<td>Extremely</td>
</tr>
</tbody>
</table>

70. Faintness or dizziness
71. Feeling no interest in things
72. Nervousness or shakiness inside
73. Pains in heart or chest
74. Feeling lonely
75. Feeling tense or keyed up
76. Nausea or upset stomach
77. Feeling blue
78. Suddenly scared for no reason
79. Trouble catching your breath
80. Feelings of worthlessness
81. Spells of terror or panic
82. Numbness or tingling in parts of your body
83. Feeling hopeless about the future
84. Feeling so restless you couldn't sit still
85. Feeling weak in parts of your body
86. Thoughts of ending your life
87. Feeling fearful

**Frequency of Suicide Ideation Inventory**

How frequently have you had the following thoughts over the past year?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Frequently</td>
<td>Almost every day</td>
<td></td>
</tr>
</tbody>
</table>

88. Over the past year, how often have you thought about hurting yourself?
89. Over the past year, how often have you believed that your life was not worth living?
90. Over the past year, how often have you wondered what would happen if you ended your own life?
91. Over the past year, how often have you thought about committing suicide?
92. Over the past year, how often have you wished you did not exist?

**The Multidimensional Scale of Perceived Social Support (MSPSS)**

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

93. There is a special person who is around me when I am in need.
94. There is a special person with whom I can share my joys and sorrows.
95. My family really tries to help me.
96. I get the emotional help and support I need from my family.
97. I have a special person who is a real source of comfort to me.
98. My friends really try to help me.
99. I can count on my friends when things go wrong.
100. I can talk about my problems with my family.
101. I have friends with whom I can share my joys and sorrows.
102. There is a special person in my life who cares about my feelings.
103. My family is willing to help me make decisions.
104. I can talk about my problems with my friends.
LIST OF REFERENCES


harm in lesbians, gays and bisexuals in Sweden. *Journal of Epidemiology and Community Health, 70*(9), 895–901. https://doi.org/10.1136/jech-2015-206884


