

January 2019

Discrimination, Victimization, and Suicidality in the LGBTQ Population: The Role of Psychological Pain and Perceived Connectedness

Amanda L. Peterson
University of South Florida, yeage034@gmail.com

Follow this and additional works at: <https://scholarcommons.usf.edu/etd>



Part of the [Clinical Psychology Commons](#)

Scholar Commons Citation

Peterson, Amanda L., "Discrimination, Victimization, and Suicidality in the LGBTQ Population: The Role of Psychological Pain and Perceived Connectedness" (2019). *Graduate Theses and Dissertations*.
<https://scholarcommons.usf.edu/etd/7886>

This Thesis is brought to you for free and open access by the Graduate School at Scholar Commons. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact scholarcommons@usf.edu.

Discrimination, Victimization, and Suicidality in the LGBTQ Population: The Role of
Psychological Pain and Perceived Connectedness

by

Amanda L. Peterson

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
Department of Psychology
College of Arts & Sciences
University of South Florida

Major Professor: Marc Karver, Ph.D.
Jack Darkes, Ph.D.
Jennifer Bosson, Ph.D.

Date of Approval:
January 14, 2019

Keywords: suicidal ideation, LGBTQ, psychological pain, social connectedness

Copyright © 2019, Amanda L. Peterson

TABLE OF CONTENTS

List of Tables	iii
List of Figures	iv
Abstract	v
Introduction	1
Discrimination and Victimization	3
Psychological Pain and Suicide Risk	10
Perceived Social Connection and Suicide Risk	13
Overall Summary/Theoretical Model	16
Proposed Study	20
Methods	22
Participants	22
Measures	23
Demographics	23
Daily Heterosexist Experiences Questionnaire	23
The Psychache Scale	24
The Multidimensional Scale of Perceived Social Support	25
The Self-harm Behavior Questionnaire	26
Procedure	27
Data Analysis	28
Preliminary Analyses	28
Analyses for Respective Hypotheses	29
Results	33
Descriptive Statistics	34
Hypothesis Testing	36
Hypothesis 1A	36
Hypothesis 1B	36
Hypothesis 2A	36
Hypothesis 2B	38
Hypothesis 3	39
Hypothesis 4	39
Hypothesis 5	40
Hypothesis 6A	41
Hypothesis 6B	41
Hypothesis 7	43

Discussion	45
Ambient Discrimination/Victimization Mediation	45
Direct Discrimination/Victimization Mediation	50
Direct Discrimination/Victimization Moderation	55
Limitations	57
Summary and Future Directions	61
References	78
Appendices	95
Appendix A: Email to Community Groups	95
Appendix B: IRB Letter	96

LIST OF TABLES

Table 1: Demographics	64
Table 2: Descriptive Statistics on Independent and Dependent Variables	66
Table 3: Intercorrelations Between Variables of Interest	67
Table 4: Summary of Hierarchical Regression Analysis for Variables Predicting Suicidal Ideation	68
Table 5: Summary of Hierarchical Regression Analysis for Variables Predicting Psychological Pain	70

LIST OF FIGURES

Figure 1: Proposed model	72
Figure 2: Last Year Direct Discrimination (DD) Psychological Pain (PP) Mediation Model	73
Figure 3: Lifetime Direct Discrimination (DD) Psychological Pain (PP) Mediation Model	74
Figure 4: Last Year Ambient Discrimination (AD) Psychological Pain (PP) Mediation Model	75
Figure 5: Lifetime Ambient Discrimination (AD) Psychological Pain (PP) Mediation Model	77
Figure 6: Simple slopes graph of the moderating effect of lifetime connectedness in the relationship between lifetime direct discrimination/victimization and lifetime psychological pain	77
Figure 7: Johnson-Neyman plot of the moderating effect of lifetime connectedness in the relationship between lifetime direct discrimination/victimization and lifetime psychological pain	78

ABSTRACT

Individuals who identify as lesbian, gay, bisexual, transgender, or queer (LGBTQ) are at a higher risk for suicide compared to the general population, but little is known about why this is. Many LGBTQ individuals face some form of discrimination or victimization in their lifetime, and some evidence suggests these experiences may contribute to this group's higher suicide risk. Unfortunately, research has only examined the impact of direct discrimination/victimization on suicidality and has neglected to examine how ambient discrimination/victimization relates to suicidality. Additionally, although some links exist between discrimination, victimization, and suicide, the mechanisms by which these are related are unknown. This study aims to address these gaps in the literature by exploring the effect of ambient discrimination/victimization on suicidal ideation and examining psychological pain as a mediator and social connectedness as a moderator between various forms of discrimination and victimization and suicidal ideation. Regression, mediation, and moderation analyses were conducted in order to examine these relationships in a sample of 200 LGBTQ-identified individuals. Results of this study may provide insight into why the LGBTQ community is at an increased risk for suicide.

INTRODUCTION

It has been estimated that 3.8% of the United States population identifies as lesbian, gay, bisexual, transgender, or queer (LGBTQ), which translates to approximately 9 million people (Gates, 2011). Unfortunately, the LGBTQ population experiences significant mental health disparities compared to heterosexuals. Bostwick et al. (2010) found lesbian, gay, and bisexual individuals to be one and a half to two times more likely than heterosexuals to report a lifetime mood or anxiety disorder. In a large meta-analysis, results were similar, with lesbian, gay, and bisexual persons one and a half times more likely to report a lifetime depressive disorder or anxiety disorder (King et al., 2008). In addition, this meta-analysis found LGB people to have alcohol and other substance dependence at a rate one and a half times higher than heterosexual counterparts. In addition to diagnosable mental health conditions, sexual minorities also report higher levels of general tension, worry, and self-reported poor mental health (Conron, Mimiaga, & Landers, 2010; Dilley et al., 2010). Unfortunately, it is still unknown why LGBTQ individuals are at a higher risk for mental health distress compared to the general population.

Researchers have attempted to explain these mental health differences by looking at the unique stressors LGBTQ individuals face compared to heterosexuals. It has been documented that this population experiences ostracism and alienation at higher rates than heterosexuals (Lick, Durso & Johnson, 2013; Oswalt & Wyatt, 2011). In addition, LGBTQ individuals oftentimes report significant stress associated with the “coming out” process (D’Augelli, 1996). Lastly, there remains an extremely impactful stressor that disproportionately affects LGBTQ individuals and can have devastating outcomes. Numerous studies have shown members of the LGBTQ

population are significantly more likely than heterosexual counterparts to experience a myriad of physical, sexual, and psychological abuses (Balsam, Rothblum, & Beauchaine, 2005; Herek, Gillis, & Cogan, 1999; Lombardi et al., 2001), not to mention various forms and types of discrimination and everyday heterosexist harassment (Faulkner & Cranston, 1998; Mays & Cochran, 2001; Nadal, Rivera, & Corpus, 2010; Woodford, Krentzman, & Gattis, 2012).

Victimization and discrimination in the LGBTQ community could explain this group's mental health disparities, as experiencing these events has been shown to be related to many negative outcomes (Baruch-Dominguiz et al., 2016; Bostwick et al., 2014; Savin-Williams, 1994; Seelman, Woodford, & Nicolazzo, 2016; Woodford et al., 2012). Examples of these outcomes include alcohol use disorders, anxiety disorders, legal repercussions, and psychological distress (Bostwick et al., 2014, Savin-Williams, 1994, Seelman, Woodford, & Nicolazzo, 2016). However, potentially the most disturbing outcome victimization and discrimination has been linked to is suicidal thoughts and behaviors (Clements-Nolle, Marx, & Katz, 2008; Rood et al., 2015; Savin-Williams, 1994).

Astonishingly, anywhere between 32% and 50% of LGBTQ persons will have suicidal thoughts in their lifetime (D'Augelli et al., 2001; Dirkes et al., 2016; Herman et al., 2016; McBee-Strayer & Rogers, 2002; McDaniel, Purcell, & D'Augelli, 2001; Ploderl & Fartacek, 2005; Stone et al., 2014). Compared to an estimated 9.2% lifetime prevalence of suicidal ideation across a multitude of countries, these numbers are astronomically high (Nock et al., 2008). Additionally, LGBTQ-identified individuals are between 2 to 6 times more likely to attempt suicide compared to heterosexual peers (Fergusson et al., 1999; Herrell et al., 1999; King et al., 2008; Paul et al., 2002; Harris, 2013). In the United States, 12% of gay and bisexual men have reported at least one lifetime suicide attempt (Paul et al., 2002). Across a multitude of countries,

the suicide attempt rate for transgender individuals was between 32% and 50% (Virupaksha, Muralidhar, & Ramakrishna, 2016). In a meta-analysis across 30 cross-sectional studies, 20% of LGB persons recruited from LGB community venues reported a lifetime suicide attempt (Hottes et al., 2016). Once again, these numbers are concerning given in a cross-national sample, 2.7% of people report a lifetime suicide attempt (Nock et al., 2009). Finally, LGBTQ persons may be more likely to die by suicide compared to heterosexuals. One psychological autopsy study found individuals with a same-sex domestic partner were 3-4 times more likely to have died by suicide compared to married, heterosexual individuals (Qin, Agerbo, & Mortensen, 2003).

Despite these sobering statistics, little is known about why LGBTQ individuals are at a higher risk of suicide compared to non-LGBTQ individuals. Although a good amount of research has linked the experience of discrimination and victimization to suicidality (Clements-Nolle, Marx, & Katz, 2008; Rood et al., 2015; Savin-Williams, 1994), it remains a relative mystery why this link exists or what possible mechanisms explain this relationship. Additionally, little research has been done to examine how different forms and types of discrimination and victimization differentially impact suicidal outcomes. By knowing this information, we may be able to target groups for a variety of different prevention and intervention approaches. Additionally, identifying the mechanisms by which discrimination/victimization leads to suicide may provide clinicians with important targets for prevention and intervention approaches. This study aims to address this gap in the literature by examining a potential mechanism by which discrimination/victimization may lead to suicidality, and examining how different types of discrimination/victimization may impact suicidality.

Discrimination and Victimization

Discrimination can be defined as unjust, differential treatment of different categories of people or things, especially on the grounds of age, race, or sex (Kressin et al., 2008; Williams & Mohammed, 2010). Examples of discrimination could include not being hired for a job because one is LGBTQ, a landlord refusing to rent an apartment to someone because they are LGBTQ, or a healthcare worker not treating someone who is LGBTQ with the same medical care standards as other patients. Similarly, victimization can be defined as the experience of unfair treatment, but it typically has been used to refer to cruel treatment (Bond et al., 2001; Katz-Wise & Hyde, 2012; Reijntes et al., 2010). Examples of victimization could include experiencing verbal harassment, physical violence, and personal property destruction. In the social sciences literature, the above definitions have been used consistently, although the ways experiences of discrimination and victimization are measured and the quality of these measures have been varied (Bertrand & Duflo, 2017; Morrison, Bishop, Morrison, & Parker-Taneo, 2016; Oswald et al., 2013; Schmitt et al., 2014; Toomey & Russell, 2016). For example, Morrison, Bishop, Morrison, & Parker-Taneo (2016) conducted a review of measures designed to assess discrimination against sexual minorities and found a majority of them were not psychometrically sound. Other studies used only one or two questions to assess discrimination/victimization (Andrinopoulos et al., 2015; Boehmer et al., 2012; D'Anna et al., 2012; Mereish, O'Cleirigh, & Bradford, 2014; Poon, Saewyc, & Chen, 2011; Rood, Puckett, Pantalone, & Bradford, 2015). In addition, while the previously mentioned studies examined the experience of discrimination/victimization as one domain, others have explored different facets of discrimination/victimization (Balsam, Beadnell, & Molina, 2013; Woodford et al., 2015). For example, Balsam, Beadnell, and Molina (2013) created a measure that split the experience of

discrimination/victimization into experienced discrimination, experienced victimization, and vicarious trauma (also known as ambient discrimination/victimization).

Due to their deleterious effects on mental health, it would be important to assess the differing ways one can experience discrimination/victimization to determine what types are particularly harmful. Individuals can experience either direct discrimination/victimization or ambient discrimination/victimization. One can experience direct discrimination/victimization, which in this paper refers to the person in question being the target of these behaviors. An example would be a person being fired from their job because their employer found out that they were gay.

Theories have posited that being the target of discriminatory behaviors is a form of social stress that could hypothetically lead to negative mental health outcomes (Allison, 1998; Dohrenwend, 2000; Meyer, 1995). According to the Minority Stress Theory (Meyer, 1995; Meyer, 2009; Meyer, 2013), minority populations (including LGBTQ persons) are faced with unique, chronic stressors that are socially based and can include the experience of prejudice, stigma, stereotyping, rejection, harassment, maltreatment, and hostility. This mismatch between minority and majority culture not only contributes to the treatment minority cultures receive, but also contributes to internalized beliefs about oneself as a member of a minority culture. Meyer (2013) suggested LGBTQ individuals could experience social stress through discrimination/victimization through the actual experience, through anticipating future negative experiences, and through internalizing negative societal attitudes. These experiences are thought to lead to cognitions involving a lack of self-acceptance, internalized homophobia, self-blame, shame, unstable self-perception, low self-esteem, intrusive thoughts related to concealment of identity, and hopelessness (Meyer, 2013). These cognitions could then lead to negative emotions

(anxiety, fear, etc.) and mental health distress, along with concealment of one's identity, alienation from society as a means of self-punishment, and maladaptive coping (such as avoiding social situations as a means to attempt to escape possible sources of social stress) (Meyer, 2013). Of all these outcomes, feeling disconnected from others has been shown to lead to increased stress, a greater risk of psychopathology, and decreased life satisfaction (Kawachi & Berkman, 2001; Siedlecki et al., 2014; Ucino, Cacioppo, & Kiecolt-Glaser, 1996). Overall, social stress, in addition to the everyday stressors that everyone in the general population experiences, could explain why LGBTQ people have higher rates of mental illness/psychological distress (Meyer, 2013).

In the LGBTQ community, many individuals report directly experiencing some type of discrimination or victimization at some point in their lives (Bradford et al., 2013; Herek et al., 1999; Mayes & Cochran, 2001; Reitzel et al., 2017). For example, Mayes and Cochran (2001) found that LGBTQ people were twice as likely to have been fired from a job due to prejudicial attitudes compared to heterosexuals. In addition, 1/5 of lesbian women and 1/4 of gay men have reported being victimized as a result of their sexual orientation (Herek et al., 1999). In another study, 41% of transgender individuals reported experiencing either employment, housing, or healthcare discrimination due to their transgender status (Bradford et al., 2013). Of note, many LGBTQ individuals who experience discrimination/victimization experience it multiple times (Pilkington & D'Augelli, 1995). In one study, greater than half of LGBTQ respondents had experienced more than one incident of verbal harassment (Pilkington & D'Augelli, 1995).

Many studies have documented the effects of discrimination/victimization on minority populations. In racial minorities, research has linked discrimination/victimization to increased psychological distress, poorer physical health, lower self-esteem, youth delinquency, risky sexual

behaviors, and mental illness (Broman, Mavaddat, & Hsu, 2000; Karlsen & Nazroo, 2002; Nadal et al., 2014; Tobler et al., 2013). In a meta-analysis done by Pascoe and Richman (2009), both recent and lifetime perceived discrimination in a variety of minority samples were associated with negative mental and physical health outcomes along with heightened physiological and psychological stress responses and increased unhealthy behaviors. In another meta-analysis that looked at the psychological consequences of perceived discrimination in a variety of minority populations, higher levels of perceived discrimination were associated with lower levels of psychological well-being, which included lower self-esteem, symptoms of depression/anxiety, higher psychological distress, and lower life satisfaction (Schmitt, Branscombe, Postmes, Garcia, 2014).

Numerous studies have shown the deleterious effects of direct discrimination/victimization in the LGBTQ community as well (Bostwick et al., 2014; Burgess et al., 2008; Herek et al., 1999; Irwin et al., 2014; Matarazzo et al., 2014; Roberts et al., 2010; Seelman, Woodford, & Nicolazzo, 2016; Skerrett, Kolves, & De Leo, 2016; Swim et al., 2009; Syzmanski, 2009; Waldo, 1999). Swim et al. (2009) found that LGBTQ individuals who report being victimized have higher rates of anxiety disorders and post-traumatic stress disorder compared to LGBTQ individuals who have not been victimized. Perceived discrimination has also been associated with depression and anxiety diagnoses in sexual minorities, along with being a smoker and a higher number of poor mental health days compared to LGBTQ individuals not reporting discrimination (Burgess et al., 2008). Seelman, Woodford, and Nicolazzo (2016) measured experiences of victimization and reported self-esteem in LGBTQ college students and found individuals reporting more experiences of victimization also reported

lower self-esteem. Experiencing direct discrimination has also been linked to psychological distress in LGBTQ persons (Szymanski, 2009).

Another form of discrimination/victimization is termed ambient discrimination and has been defined as witnessing, overhearing, or being aware of discriminatory behaviors directed at someone in your group other than yourself (Glomb et al., 1997; Woodford et al., 2014). For example, an LGBTQ person witnessing another LGBTQ person being verbally abused because of their sexuality would be experiencing ambient victimization. The term ambient discrimination was first utilized in the sexual harassment literature by Glomb et al. (1997), when they studied the effects of witnessing/hearing about sexual harassment in the workplace. The researchers posited that just witnessing or knowing about sexual harassment in one's workplace is a workplace stressor, similar to other stressors that occur at work, such as role ambiguity and work overload. Witnessing/knowing about sexual harassment in the workplace could lead to worry that one will be a target of sexual harassment themselves, feelings of powerlessness at work, and poor social relationships if one tries to express concerns to unsupportive coworkers (Glomb et al., 1997). These outcomes could then lead to negative mental/physical health, along with poor work performance (Glomb et al., 1997). Similarly, Meyer et al. (2013) suggested that conflict between one's sexual orientation and the social context one lives in may increase one's risk for poor mental health. This in turn may lead to internalization of negative societal attitudes (internalized homophobia), identity interruptions (when feedback from other's is conflicting with one's self-identity), and thoughts of diminished worth, all of which could then lead to emotional problems/distress (Meyer et al., 2013). One could see how experiencing ambient discrimination/victimization could create a negative social context for sexual minorities and in turn could lead to the aforementioned outcomes. In other studies, the terms co-victimization,

vicarious victimization, and vicarious trauma have all been used to refer to witnessing the victimization of another person (Balsam, Beadnell, & Molina, 2013; Fitzpatrick & Boldizar; Shakoor & Chalmers, 1991; Schauben & Frazier, 1995).

While the negative effects of direct discrimination/victimization have been well-supported, the effects of ambient discrimination/victimization have not been as widely studied, although research in other fields has suggested that the relationships are similar (Glomb et al., 1997; Miner-Rubino & Cortina, 2004). Glomb et al. (1997) found similar outcomes for those who have been directly harassed versus experienced ambient harassment, with both groups reporting lower job satisfaction and higher rates of psychological distress. Schauben and Frazier (1995) studied the effects of vicarious trauma on female counselors working with sexual assault survivors and discovered that counselors who had a greater number of clients who had experienced sexual assault also had more symptoms of PTSD compared to counselors who had fewer clients who had been sexually assaulted. Research has also shown just witnessing traumatic events of another individuals can also lead to deleterious effects, including PTSD symptoms and substance abuse (Fitzpatrick & Boldizar, 1993; Rivers et al., 2009). Adolescents who witnessed violent crime occurring in their neighborhoods or domestic violence were more likely to display criminal behaviors compared to adolescents who did not witness violence (Eitle & Turner, 2002). In addition, adolescent females (but not males) who heard about reports of violence against people they knew were more likely to experience adverse mental health outcomes (anxiety and depression), while adolescent females who witnessed violence towards others were at particular risk for displaying externalizing symptoms (Javdani et al., 2014).

While some literature on ambient discrimination/victimization exists in other fields, only a few studies have looked at the impact witnessing discriminatory behaviors has on the mental

health of LGBTQ individuals. Woodford et al. (2014) measured ambient hostility (witnessing/hearing about physical/verbal assault or threats to another LGBTQ person), ambient incivility (witnessing an LGBTQ person being treated rudely or ignored), and heterosexual harassment (hearing about an LGBTQ person being called homophobic names, being told to conceal their sexual orientation, or being told they are not masculine/feminine enough). This study discovered witnessing all three forms of ambient discrimination/victimization was associated with moderate to severe anxiety symptoms in a sample of LGBTQ college students. In addition, hearing about heterosexual harassment was related to depressive symptoms, but this relationship was not significant for the other two forms of ambient discrimination/victimization. Of note in this study, the authors created their own questions to assess ambient hostility and incivility, but due to skewness in the variable, they dichotomized the response, which may have reduced their ability to detect effects. The experience of ambient hostility (as measured in the study above) has also been found to be associated with problematic drinking behaviors in LGBTQ college students (Woodford, Krentzman, & Gattis, 2012). On the other hand, Silverschanz et al. (2008) did not find significant differences in academic and mental health problems between groups of LGBTQ people who experienced ambient discrimination/victimization and groups that did not. In this study, ambient heterosexual harassment was studied, which they operationalized with 3 questions assessing overhearing offensive jokes about LGBTQ people, overhearing crude or offensive remarks toward gay people, or hearing an LGBTQ person being called a homophobic name. Similar to the studies above, this variable was highly skewed, so it was dichotomized, which may have reduced the author's ability to detect a significant effect.

On top of the variety of negative outcomes associated with direct and, to an extent, ambient discrimination/victimization, suicidal ideation could potentially be the most disturbing outcome. Studies have documented the link between direct discrimination/victimization and suicidal ideation in LGBTQ adults (de Graff et al., 2006; Irwin et al., 2014; Rivers & Cowie, 2006; Russell et al., 2011). De Graff et al. (2006) conducted a survey in the Netherlands and found a link between perceived discrimination and suicidal behaviors in gay and bisexual men. In a sample of LGBT individuals from Nebraska, individuals who experience higher rates of discriminatory behaviors also had a higher likelihood of reporting suicidal ideation (Irwin et al., 2014). In transgender military members, past-year discrimination was associated with past-year suicidal ideation (Lehavot, Simpson, & Shipherd, 2016). Rivers and Cowie (2006) found that 53% of their LGB sample reported suicidal/self-harming ideation as a result of experiencing victimization. 40% of their sample actually attempted suicide or self-harmed due to experiencing victimization. In a sample of LGBT young adults, those who reported high levels of victimization in adolescence had an almost 6 times increased risk for a suicide attempt compared to LGBT young adults who reported low levels of victimization (Russell et al., 2011).

Overall, there appears to be a link between direct discrimination and victimization and suicidality, but it remains unknown if an association is present between ambient discrimination and victimization and suicidality. This study will address this gap by exploring the association between ambient discrimination/victimization and suicidal ideation. In addition, although a link between direct discrimination/victimization and suicidality has been observed, the mechanisms explaining this relationship remain unknown. One consequence that could result from experiencing direct and ambient discrimination/victimization, and could also be a mechanism by which these experiences lead to suicidal ideation, is psychological pain.

Psychological Pain and Suicide Risk

The term psychological pain has been defined as the subjective, aversive experience of intense negative feelings and has been considered analogous to intense physical pain (Mee et al., 2006; Schneidman, 1993; Verrochio et al., 2016). Psychological pain can consist of intense feelings such as shame, guilt, humiliation, fear, and anguish (Schneidman, 1993) and is deemed intolerable, unbearable, or unacceptable to the individual (Schneidman, 1998). In fact, some studies have shown that experiencing certain emotional states related to psychological pain (e.g. sadness, grief, social exclusion) stimulates the same regions in the brain that are stimulated during the experience of physical pain (Mee et al., 2006). Of note, no studies currently exist that directly examine psychological pain and brain activation, but the relationship can be inferred from controlled studies looking at related emotions (Mee et al., 2006). In physical pain studies, activation is typically seen in the prefrontal cortex, anterior cingulate, insula, thalamus, cerebellum, parietal, and somatosensory cortices (Mee et al., 2006). In studies that induced sadness, feelings of social exclusion, and grief, some of these same brain areas were activated (Eisenberger and Lieberman, 2004; George et al., 1995; Gundel et al., 2003; Mee et al., 2006).

Various suicide theories have incorporated the concept of psychological pain.

Schneidman (1998) posited that suicide is the effort to escape from or put a stop to psychological pain. He conjectured that psychache results from unmet psychological needs. These needs could include social affiliation, the need to strive to better oneself, the ability to defend/protect oneself against assault, criticism, and blame, the need to avoid shaming experiences, and the need for order and understanding in one's life. As psychological pain is subjective, it is hypothesized that once one's level of psychological pain crosses some threshold in the mind, that person becomes

suicidal due to one's inability to cope with the psychache or one's inability to meet the psychological needs that resulted in the psychache.

Similarly, Klonsky and May (2015) created an ideation-to-action framework called the Three-Step Theory to explain how individuals develop suicidal ideation, then how suicidal ideation leads to death by suicide. The first step is the development of suicidal ideation. The second step regards the severity of the suicidal ideation (whether it is moderate or strong). Lastly, the third step covers the transition from suicidal ideation to suicide attempts. In the first step, the theory states that suicidal ideation results when both psychological pain and hopelessness are present. Klonsky and May (2015) posited that psychological pain can result from a multitude of experiences, including the experience of actual physical pain, social isolation, feelings of burdensomeness, feelings of defeat/entrapment, negative self-perceptions, or any other state that would be considered aversive to the individual experiencing it. They state that psychological pain may serve as punishment for living (similarly to punishment in behavioral conditioning) and therefore leads to the loss of desire to live. However, they go on to state that psychological pain is not sufficient to lead to suicidal ideation and they conclude that hopelessness must also be present in order for a person to experience suicidal ideation.

Research has linked psychological pain to suicidal ideation and suicide attempts (Campos et al., 2017; DeLisle & Holden, 2009; Li et al., 2013; Reist et al., 2017; Troister et al., 2013; Verrocchio et al., 2016; You et al., 2017). In a 5-month longitudinal study of college students, changes in psychache were significantly associated with changes in suicidal ideation, even after controlling for depressive symptoms and hopelessness (Troister et al., 2013). In a meta-analysis, psychache was found to better predict suicidal ideation than severity of depressive symptoms

(Verrocchio et al., 2016). In qualitative studies, the concept of psychological pain is commonly seen in the suicide notes of those who die by suicide (Leenaars, 1995; Orbach et al., 2003).

Psychological pain has been hypothesized to be similar to physical pain in terms of subjective intensity (Mee et al., 2006). While some people have a high threshold for physical pain, the same may hold true for psychological pain. Therefore, it would be important to identify variables that may impact the amount of psychological pain one experiences in response to an event. Given that experiencing direct discrimination/victimization has been associated with feelings such as shame, loneliness, and sadness (Campbell, 2013; Kessler & Bieschke, 1999; Logie et al., 2013; Storch & Masia-Warner, 2004), and that psychological pain, in its definition, can be composed of intense feelings of a similar nature, it would be imperative to examine the association between experiences of discrimination/victimization and psychological pain.

No research has examined if experiencing direct or ambient discrimination/victimization leads to psychological pain, particularly in the LGBTQ community. Given the negative outcomes associated with experiencing direct/ambient discrimination/victimization and considering the close link between psychological pain and suicidal ideation, it would be important to see if direct/ambient discrimination/victimization leads to psychological pain.

While it would be important to explore factors that lead to psychological pain, it would also be important to examine factors that attenuate psychological pain. Social connectedness has been shown to be a protective factor for individuals faced with discrimination/victimization (Christiansen & Evans, 2005; Resnick et al., 1997) and may also affect one's subjective experience of psychological pain. In fact, a similar construct related to social connectedness, termed thwarted belongingness, has been defined as a "psychologically painful mental state" involving feeling disconnected/alienated from others within a social group (Joiner et al., 2009;

Van Orden et al., 2010). Thwarted belongingness has been construed as an important factor in the development of suicidal ideation. For example, the Interpersonal Theory of Suicide states that in order for one to develop suicidal ideation, one must possess feelings of both perceived burdensomeness and thwarted belongingness (Van Orden et al., 2010). According to this theory, thwarted belongingness is related to the desire to die by suicide because social connections are a fundamental human need and when this need is unmet or thwarted, individuals develop the desire to die (Van Orden et al., 2010). Thwarted belongingness is a multidimensional construct made up of two factors: loneliness and a lack of reciprocally-caring relationships (Van Orden et al., 2010). Thwarted belongingness is considered to be a sub-factor within the larger construct of social connectedness (Van Orden et al., 2010). This larger factor can include the unmet need to belong which has been found to impact suicidal ideation. Given the similarities between thwarted belongingness and social connectedness, along with the relationship between thwarted belongingness and psychological pain, one could hypothesize that social connectedness may be associated with decreases in psychological pain.

Perceived Social Connectedness and Suicide Risk

Social connectedness is a multidimensional, complex construct that, in essence, refers to the number and quality of relationships people have (Zimet et al, 1988). Similarly, Lee and Robbins (1995) defined social connectedness as an internal sense of belonging that stems from an individual's subjective sense of the closeness of their social relationships. The quality/closeness of social relationships can encompass a variety of affective, cognitive, and behavioral components, but can include the strength of the emotional bond between individuals, the amount of self-disclosure one uses with another person, the level of knowledge one possesses about another person, the length of time one chooses to spend with an individual, including an

individual in important life decisions, and feeling the relationship is important (Berscheid et al., 1989; Dibble, Levine, & Park, 2011).

Theory has suggested a link between lack of social connectedness and suicidal ideation. For example, Durkheim (1951) theorized that low levels of social integration lead to suicidal ideation because social connections are necessary to experience purpose in one's life. He states people choose to kill themselves mainly because people feel detached from society, are confused about their role in society, experience extreme oppression stemming from society, or do it because they perceive that it would benefit society in some way.

Theory has also posited that greater social connectedness may serve as a protective barrier against suicidality (Klonsky & May, 2015). The 3-Step Theory theorizes that connectedness defends against the development of suicidal ideation (Klonsky & May, 2015). In their theory, connectedness could mean connectedness to a job, role, interest, or anything else that gives meaning and purpose to one's life. Connectedness also encompasses social relationships, and, given the research linking low feelings of connectedness to suicidal ideation (Fassberg et al., 2012; Kaminski et al., 2010; You, Van Orden, & Conner, 2011), one could infer that social connectedness may be one of the most important components of general connectedness. Klonsky and May (2014) posit that as long as an individual's level of connectedness exceeds one's level of pain (psychological or physical), their suicidal ideation will remain moderate. If an individual's level of connectedness is lower than one's level of pain, then they potentially will go on to develop strong levels of suicidal ideation.

In the general population, greater levels of social connectedness have been associated with positive mental health outcomes including lowered anxiety/depressive symptoms (Armstrong & Oomen-Early, 2009; Shochet, Dads, Ham, & Montague, 2006), greater self-

esteem (Jose, Ryan, & Pryor, 2012; Williams & Galliher, 2006), self-compassion (Neff, 2003), and greater life satisfaction (Jose, Ryan, & Pryor, 2012). In addition, lower levels of social connectedness appear to be associated with more severe suicidal ideation and a greater number of suicide attempts (Arango, Opperman, Gipson, & King, 2016; Hall-Lande et al., 2007; Kaminski et al., 2010; You, Van Orden, & Conner, 2012). In a sample of adults, greater interpersonal conflict and lower levels of belongingness were both associated with a history of suicidal ideation and lower perceived social support predicted lifetime suicide attempts (You, Van Orden, Conner, 2012). In a study of adolescents, those who reported greater levels of social isolation from peers also had greater odds of having a lifetime suicide attempt (Hall-Lande et al., 2007). Greater levels of social connectedness also appear to provide protection against suicidal ideation and behaviors (He, Fulgintini, Finno-Velazques, 2015; Smith et al., 2016; Stone, Luo, Lippy, & McIntosh, 2015). In a longitudinal study of veterans, greater perceived social support was associated with remitted suicidal ideation (meaning suicidal ideation was present at the first measurement time point, but not the second) (Smith et al., 2016). In this same study, veterans reporting greater social support who did not have suicidal ideation at the first measurement period were also less likely to develop suicidal ideation at the second measurement period compared to veterans reporting low social support. In adolescents, greater levels of social connectedness were associated with lower odds of suicidal ideation and attempted suicide (Stone, Luo, Lippy, & McIntosh, 2015).

Similarly, for those who identify as LGBTQ, feelings of connectedness to various social groups (e.g. family, peers, LGBTQ community) have been associated with positive mental health outcomes (Detrie & Lease, 2007; DiFulvio, 201; Fredrickson-Goldsen et al., 2014; Shilo, Antebi, & Mor, 2015; Shilo & Savaya, 2012). In a sample of LGB youth, perceived social support

predicted psychological well-being (Detric & Lease, 2007). Poor mental health outcomes were negatively related to perceived social support and the size of one's social networks in a sample of older LGBTQ adults (Fredrikson-Goldsen et al., 2014). In bisexual youth, feelings of greater social support from one's family was associated with lower levels of mental distress (Shilo & Savaya, 2012). In a study that included a sample of both LGB youth and LGB adults, greater connectedness to family, peers, and the LGBT community were all related to higher levels of psychological well-being (Shilo, Antebi, & Mor, 2015).

In addition, higher levels of social connectedness may lower incidences of suicidal ideation and behaviors in LGBTQ individuals (Duong & Bradshaw, 2014; Eisenberg & Resnick, 2006; Taliaferro & Muehlenkamp, 2017; Seil, Desai, & Smith, 2016; Stone, Luo, Lippy, & McIntosh, 2015). LGB youth who reported higher levels of family connectedness also reported fewer lifetime suicidal thoughts/suicide attempts (Eisenberg & Resnick, 2006; Stone, Luo, Lippy, & McIntosh, 2015). In a sample of transgender adults, perceived family support was negatively associated with suicidal behavior (Moody & Smith, 2013). In LGB college students, suicidal ideation was significantly negatively correlated with family support, but was not significantly related to peer support (Hill, Rooney, Mooney, & Kaplow, 2017).

While there are numerous studies showing social connectedness is related to lower rates of suicidality and better mental health in general, only a handful of studies have examined the protective role of social connectedness as it relates to experiencing discrimination/victimization and suicidality. Rigby and Slee (1999) collected data from a large sample of adolescents and found a moderating effect of peer support on the relationship between bullying and suicidal ideation. Wolf et al. (2014), however, did not find a moderating effect of peer or family support on the relationship between victimization and suicidal ideation in a sample of inpatient

adolescents. Similarly, in LGBT youth, feeling connected to an adult at school moderated the association between experiences of bullying and suicidal/aggressive behaviors (Duong & Bradshaw, 2014). On the other hand, in a different sample of LGBT youth, neither parental nor peer support moderated the effects of bullying on suicidal ideation (Friedman et al., 2006).

Overall Summary/Theoretical Model

Overall, the available literature on discrimination/victimization and suicidality in the LGBTQ population is limited. While it has been fairly well established that experiencing direct discrimination/victimization is related to suicidal ideation (de Graff et al., 2006; Irwin et al., 2014; Rivers & Cowie, 2006; Russell et al., 2011), no studies have explored whether ambient discrimination/victimization is similarly related to suicidal ideation. In addition, no studies have looked at mediators to explain why the relationship between discrimination/victimization and suicidal ideation exists. Psychological pain could be associated with both direct and ambient discrimination/victimization and it has been linked to suicidal ideation (Campos et al., 2017; DeLisle & Holden, 2009; Li et al., 2013; Reist et al., 2017; Troister et al., 2013; Verrocchio et al., 2016; You et al., 2017). Therefore, psychological pain may be a mediator that would explain this relationship.

Similarly, few studies have explored variables that might moderate the relationship between direct/ambient discrimination/victimization and suicidal ideation. Feelings of social connectedness have been examined in association with less frequent/severe suicidality in the face of victimization (Duong & Bradshaw, 2014; Fiedman et al., 2006; Rigby & Slee, 1999; Wolff et al., 2014). Unfortunately, the minimal number of studies that have explored this variable mostly focus on the role of social connectedness in LGBT youth experiencing bullying and this literature is mixed regarding the moderating role of social connectedness. Few studies have

examined how social connectedness protects against suicidality in LGBTQ adults who experience direct discrimination/victimization and no studies have explored whether social connectedness serves as a protective factor for LGBTQ adults who experienced ambient discrimination/victimization. Social connectedness could protect against suicidality by buffering individuals from the negative effects (i.e. psychological pain) of discrimination/victimization. Regrettably, no literature has examined whether social connectedness moderates the association between ambient/direct discrimination/victimization and psychological pain. Social connectedness may also play a role in protecting those who experience psychological pain from developing suicidal ideation. Similarly, no studies have looked at this relationship.

Study Hypotheses

Based upon the available literature and the proposed theoretical model (see Figure 1), the following hypotheses were tested;

- Hypothesis 1A: More frequent direct discrimination/victimization within the last year/lifetime will be related to greater frequency of SI within the last year/lifetime.
- Hypothesis 1B: Above the effects of direct last year/lifetime discrimination/victimization, last year/lifetime ambient discrimination/victimization will explain additional, unique variance in the relationship between discrimination/victimization and last year/lifetime SI.
- Hypothesis 2A: More frequent last year/lifetime direct discrimination/victimization will be related to last year/lifetime psychological pain.

- Hypothesis 2B: Above the effects of last year/lifetime direct discrimination/victimization, lifetime/last year ambient discrimination/victimization will explain additional unique variance in the relationship to last year/lifetime psychological pain.
- Hypothesis 3: Greater levels of last year/lifetime psychological pain will be related to greater frequency of last year/lifetime SI.
- Hypothesis 4: Last year/lifetime psychological pain will mediate the relationship between last year/lifetime direct discrimination/victimization and last year/lifetime SI.
- Hypothesis 5: Last year/lifetime psychological pain will mediate the relationship between last year/lifetime ambient discrimination/victimization and last year/lifetime SI.
- Hypothesis 6A: Last year/lifetime connectedness will moderate the association between last year/lifetime direct discrimination/victimization and last year/lifetime psychological pain.
- Hypothesis 6B: Last year/lifetime connectedness will moderate the association between last year/lifetime ambient discrimination/victimization and last year/lifetime psychological pain.
- Hypothesis 7: Last year/lifetime connectedness will moderate the association between last year/lifetime psychological pain and last year/lifetime SI.

METHODS

Participants

314 LGBTQ-identified individuals were recruited from campus groups at the University of South Florida, through online LGBTQ social media pages, LGBTQ email listservs, and through snowballing recruitment methods (asking participants to forward study information on to others who might be eligible). Needed sample size was estimated using G-Power (Faul et al., 2007), which indicated to detect a moderate effect size at an alpha level of 0.05, a sample of 165 participants would be sufficient. A total of 200 participants had complete data, so this sample was used in all analyses.

Inclusion criteria consisted of any individual who identifies as LGBTQ (or anyone who identifies as anything other than heterosexual), is over the age of 18, and who is fluent in English. In order to partner in recruitment with University of South Florida campus organizations, campus groups whose leaders agreed to distribute the survey to group members were offered a presentation on either suicide prevention or the results of this study at a future member meeting. All participants who completed the study were offered a chance to enter in a raffle to win one of 10, \$20 Amazon gift cards.

Participants had a mean age of 35 (SD=13.65). 86% were Caucasian, 2.5% were African American, 6.5% were Hispanic/Latina(o), 6.5% were Asian, 2% were American Indian/Alaskan Native, 0.5% were Middle Eastern, and 3.5% identified as other. In terms of sexual orientation, 23.5% identified as lesbian, 17% as gay, 45% as bisexual, 46% as queer, 3.5% as heterosexual, and 10.5% as other. 29.5% of the sample identified as transgender. 53.5% identified as female,

30.5% as male, 11.5% as non-binary, and 4.5% as other. Additional demographics for participants with complete data can be seen in Table 1.

Measures

Demographics

Basic demographics such as LGBTQ status, age, gender, education, and race/ethnicity were collected. This questionnaire will take approximately three minutes to complete. See Appendix A.

Daily Heterosexist Experiences Questionnaire (DHEQ; Balsam, Beadnell, & Molina, 2013)

The DHEQ is designed to measure minority stressors and subjective distress resulting from these stressors for LGBTQ individuals. The self-report questionnaire consists of 50 questions rated on a Likert scale ranging from 0 (did not happen/not applicable to me) to 5 (it happened, and it bothered me extremely). The DHEQ consists of 9 subscales; Gender expression, vigilance, negative parenting experiences, discrimination/harassment, vicarious trauma, negative family of origin experiences, HIV/AIDS, victimization, and isolation. These subscales can be combined to form a total minority stress score. For the purposes of this study, only the discrimination/harassment (6 items), vicarious trauma (6 items), and victimization subscales (5 items) were used. Example questions from the discrimination/harassment subscale include, “Being verbally harassed by strangers because you are LGBT” and “Being treated unfairly in restaurants or stores because you are LGBT”. Example questions from the vicarious trauma subscale include, “Hearing about hate crimes that happened to LGBT people you don’t know”, and “Hearing someone make jokes about LGBT people”. Example questions from the victimization subscale include, “Having objects thrown at you because you are LGBT” and

“Being punched, hit, kicked, or beaten because you are LGBT”. To make sure the questions were more inclusive for this study’s targeted population, “LGBT” in each question was changed to “LGBTQ”.

Internal reliability was good for both the total score ($\alpha = .92$) and each of the subscales (gender expression, $\alpha = .86$; vigilance, $\alpha = .86$; parenting, $\alpha = .83$; harassment/discrimination, $\alpha = .85$; vicarious trauma, $\alpha = .82$; family of origin, $\alpha = .79$; HIV/AIDS, $\alpha = .79$; victimization, $\alpha = .87$; isolation, $\alpha = .76$) (Balsam et al., 2013). The DEHQ also has established concurrent validity, as the total score and the majority of subscale scores had moderate correlations with measures of psychological distress ($r = .23-.54$) (Balsam et al., 2013). For the purposes of this study, participants were asked to answer these questions with two different timelines, lifetime minority stressors and stressors within the last year. Subscale scores will be computed by taking the mean frequency for discrimination/harassment/victimization and vicarious trauma.

While this measure has been deemed one of the most psychometrically sound measures assessing ambient and direct discrimination/victimization in the LGBTQ community (Morrison, Bishop, Morrison, & Parker-Taneo, 2016), one issue is that the response choices cross frequency of a stressor with the amount of distress the person experiences from the stressor. The authors suggest that future research should try to look at frequency separately, so this is what I will be doing in this study. To do this, a 0-5 point Likert scale was constructed with 0=did not happen to me/not applicable to 5=happened very frequently (several times a week). Participants were also asked to respond to these questions on two different timelines (lifetime and last year). Time to complete the measure takes approximately 15 minutes. See Appendix B.

The Psychache Scale (Holden, Mehta, Cunningham, & McLeod, 2001)

The Psychache Scale is a 13-item scale measuring current psychological pain. Example questions include, “I seem to ache inside”, “I can’t take my pain anymore”, and “My psychological pain seems worse than any physical pain”. Each question is answered using a Likert response scale ranging from 1 (never) to 5 (always) or a Likert response scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Psychache Scale has established discriminant validity, as it successfully distinguishes between suicide attempters and non-attempters (effect size = .66; Holden et al., 2001). The scale also displayed concurrent validity as it had strong, positive correlations with other scales measuring suicidal ideation ($r=.52$) and suicide attempts ($r=.30$) (Holden et al., 2001). Internal consistency for the scale has been reported in other literature as good ($\alpha = .92$; Holden et al., 2001). For the purposes of this study, participants were asked to respond to each question within the time frame of the last year and their lifetime in general. To facilitate responding, stems were added to each question to orient participants to the time frame they were responding to. For the last year, the stem “When I think back on the past year...” was added before the questions were presented. For lifetime, “When I think back on my life...” was added. Time to complete the measure takes approximately 5 minutes. See Appendix C.

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988)

The MSPSS is a 12-item measure designed to assess an individual’s perceived level of social support from three sources (subscales); family, friends, and significant others. Example questions include, “There is a special person who is around when I am in need”, “My friends really try to help me”, and “I can talk about my problems with my family”. Each item is rated on a Likert scale ranging from 1 (very strongly disagree) to 7 (very strongly agree). Scores on the

three subscales of the measure can be combined to form one global perceived social support score. Internal consistency of the global score and the three subscale scores has been examined in both psychiatric and university student populations. For the “Friends”, “Family”, and “Significant Other” subscales, internal consistency is good (Cronbach’s $\alpha = .93-.94$; $\alpha = .92$; $\alpha = .93-.94$). For the “Global” rating, Cronbach’s alpha is acceptable ($\alpha = .79$). Convergent validity of the global rating has been established in previous research, as the global score has been found to be moderately to highly correlated with a measure assessing social support behaviors received ($r = .38-.63$; Kazarian & McCabe, 1991) and is negatively correlated with measures of depression and anxiety ($r = -.26- -.55$; Eker & Arkar, 1995). For the purposes of this study, participants were asked to respond to each question within the time frame of the last year and generally in their lifetime. To facilitate responding, stems were added to each question to orient participants to the time frame they were responding to. For the last year, the stem “When I think back on the past year...” was added before the questions were presented. For lifetime, “When I think back on my life...” was added. For analyses, the global perceived social support scale will be used. Time to complete the measure takes approximately 5 minutes. See Appendix D.

The Self-Harm Behavior Questionnaire (SHBQ; Gutierrez, Osman, Barrios, & Kopper, 2001).

The SHBQ is a 41-item measure of lifetime and past year suicidal behavior, including non-suicidal self-injury (NSSI), suicidal ideation, suicide threats, and suicide attempts. For the purposes of this study, only suicidal ideation was used in analyses. Example items for suicidal ideation are, “Have you ever thought/talked about wanting to die” and “Have you ever thought/talked about committing suicide”. These are answered as yes/no and if participants answer yes, they are then prompted to estimate how often they have thought about suicide in

their lifetime and the last year. The measure also included free response questions which were removed for the sake of brevity. The SBHQ possesses good internal reliability for each scale (scales range from $\alpha = .89-.96$; Gutierrez et al., 2001). Convergent validity was also established, as the measure had moderate to high correlations with existing measures of suicidality ($r = .26-.77$; Gutierrez et al., 2001). Time to complete the measure takes approximately 10 minutes depending on how many symptoms are endorsed. See Appendix E.

Procedure

Participants identifying as LGBTQ were recruited through multiple sources. First, emails (see Appendix F) were sent out to LGBTQ college campus group leaders and LGBTQ affiliated community listservs/online groups to ascertain the interest of group members participating in a research survey. This email detailed my role on the project, along with the reasoning behind the survey. The campus/community group leaders were asked to respond back to said email if they were potentially willing to distribute the survey to members of their organization. Both local and national organizations were contacted to participate. When University of South Florida group leaders specifically responded to said email with interest, they were then informed that, in exchange for distributing the survey to members of their organization, they could receive a presentation for their organization on either suicide prevention or the results of this study. All group leaders were informed that they would need to distribute the survey link to their members and provide me with the total number of members the survey was sent out to in order to calculate response rates. Thirteen organizations in total responded back with interest in the study.

According to pilot testing, participation in the survey is expected to take around 40 minutes. When participants clicked on the provided link, they were directed to the survey and first viewed the informed consent page, which detailed the background of the study, purpose,

procedures, risks and benefits, participant rights, and confidentiality policies. After giving informed consent, participants were directed to complete the online survey. At the beginning of the survey, anyone selecting that they identify as heterosexual and cis-gender were redirected out of the study and informed they do not qualify. Participants completed the DHEQ first, then the Scale of Psychache, the MDSPSS, and lastly the DSHI. When the survey was completed, a debriefing page was presented to participants informing them of the purpose of the study and the contact information of the principal investigator. Since this survey contained questions regarding suicidality, mental health resources (including campus, community, and national resources) were provided to all participants. Participant data was de-identified and assigned an anonymous participant number. It is stored on a secured, password protected server accessible only by authorized research personnel.

Data Analysis

Upon retrieval of the data from the online survey platform, scores were calculated for all measures. Descriptive statistics on all demographic items and total measure scores were run to calculate frequencies for categorical data and means (including standard deviations and ranges) for continuous data. Data for continuous variables was examined for outliers and tested for normality using the Shapiro-Wilk test and homoscedacity using Levine's test for Equality of Variance. If skewness and kurtosis was between +2 and -2, then scores were considered normally distributed (Cameron, 2004). Each measure was also checked for reliability (Cronbach's alpha; Cronbach, 1951).

Analyses for Respective Study Hypotheses

Hypothesis 1A:

A Pearson correlation was conducted to determine if direct discrimination/victimization experienced within the last year is related to suicidal ideation within the last year. For this and all other analyses, the discrimination/harassment and victimization subscales from the DEHQ comprised the direct discrimination/victimization variable and was calculated by taking the mean of the discrimination/harassment and victimization subscale items. Another Pearson correlation will be used to determine if lifetime direct discrimination/victimization is related to lifetime suicidal ideation.

Hypothesis 1B:

A hierarchical multiple regression was conducted to determine if ambient discrimination/victimization experienced within the last year is related to suicidal ideation within the last year, above and beyond the effects of direct discrimination/victimization within the last year. Last year direct discrimination/victimization will be entered into the first step, last year ambient discrimination/victimization will be entered into the second step, and last year suicidal ideation will serve as the dependent variable. A significant change in R-squared determined if ambient discrimination/victimization explained additional, unique variance. This same analysis was repeated using lifetime ambient discrimination/victimization, lifetime direct discrimination/victimization, and lifetime suicidal ideation.

Hypothesis 2A:

Pearson correlations were used to see if last year direct discrimination/victimization is related to last year psychological pain. The same analysis was run for lifetime direct discrimination/victimization and lifetime psychological pain.

Hypothesis 2B:

A hierarchical multiple regression was conducted to determine if ambient discrimination/victimization experienced within the last year is related to psychological pain within the last year, above and beyond the effects of direct discrimination/victimization within the last year. Last year direct discrimination/victimization was entered into the first step, last year ambient discrimination/victimization was entered into the second step, and last year psychological pain served as the dependent variable. A significant change in R-squared determined if ambient discrimination/victimization explained additional, unique variance. This same analysis was repeated using lifetime ambient discrimination/victimization, lifetime direct discrimination/victimization, and lifetime psychological pain.

Hypothesis 3:

Pearson correlations were conducted to determine if last year psychological pain is related to last year suicidal ideation. The same analyses were run for lifetime psychological pain and lifetime suicidal ideation.

Hypothesis 4:

To examine whether last year psychological pain mediates the association between last year direct discrimination/victimization and last year suicidal ideation, the PROCESS macro for SPSS was used (Hayes, 2013). Last year direct discrimination/victimization served as the independent variable, last year psychological pain served as the mediator, and last year suicidal ideation was the outcome variable. PROCESS generates direct and indirect effects. 95% bootstrapped confidence intervals were produced using 10,000 bootstrapped samples. If the indirect effect confidence interval did not contain 0, the null hypothesis was rejected, and mediation was assumed. The same analysis was conducted using

lifetime psychological pain, lifetime direct discrimination/victimization and lifetime suicidal ideation.

Hypothesis 5:

To examine whether last year psychological pain mediates the association between last year ambient discrimination/victimization and last year suicidal ideation, the same analysis from Hypothesis 4 was conducted. Another separate mediation analysis was run for lifetime psychological pain, lifetime ambient discrimination/victimization, and lifetime suicidal ideation.

Hypothesis 6A:

To examine whether last year connectedness moderates the relationship between last year direct discrimination/victimization and last year psychological pain, the PROCESS macro for SPSS was used (Hayes, 2013). Last year direct discrimination/victimization served as the independent variable, last year connectedness as the moderating variable, and last year psychological pain as the dependent variable. The independent variable and the moderator were mean-centered before analyses. PROCESS automatically calculates the interaction term, so this does not need to be done separately. Change in R-squared of the interaction term was used to determine if the moderation effect explains additional, unique variance in the dependent variable. A simple slopes analysis (examining the effects of the moderator at the mean, one standard deviation above the mean, and one standard deviation below the mean) and the Johnson-Neyman technique (examining regions of significance of the moderator to determine where moderations becomes significant/nonsignificant) are both produced by PROCESS and were used to detect the nature of the moderation relationship. The same analysis was repeated for lifetime connectedness, lifetime direct discrimination/victimization and lifetime psychological pain.

Hypothesis 6B:

To examine whether last year connectedness moderates the relationship between last year ambient discrimination/victimization and last year psychological pain, the same analyses from Hypothesis 6A was utilized. This was repeated using lifetime connectedness, lifetime ambient discrimination/victimization and lifetime psychological pain.

Hypothesis 7: To examine whether last year/lifetime connectedness moderates the relationship between last year/lifetime psychological pain and last year/lifetime suicidal ideation, the same analyses from Hypothesis 6A was utilized.

RESULTS

Data was collected from 314 participants and descriptive statistics were run on participants with complete data on the outcome variable (suicidal ideation either last year or lifetime; N=200). These 200 participants had relatively complete data on all measures. The few missing items are noted below in the descriptives section.

The 114 participants not included in the final analyses (due to lack of complete outcome variable data) had the following percentages of missing data on each measure: last year direct discrimination, 28.9%; last year ambient discrimination, 28.9%; lifetime direct discrimination, 63.2%; lifetime ambient discrimination, 64%; last year psychological pain, 68.4%; lifetime psychological pain, 75.4%; last year connectedness, 81.6%; lifetime connectedness, 89.5%¹. People with missing data on one, two, three, or more measures were not significantly different from survey completers on any variable scores. Chi-square tests of independence and Mann-Whitney tests were performed to examine the relation between categorical and ordinal demographic variables and completion of the survey. Participants with full data had significantly higher levels of education compared to participants that had missing data ($U = 8650$, $p = .021$). Participants with full data appeared to possess more graduate education than those without full data (master's degree; 28% vs. 17.8%; doctoral degree; 19% vs. 12.1%). No other significant differences between groups were observed.

Due to PROCESS being unable to accommodate missing data, mean imputation was used for participants with any missing items in the final sample with the exception of suicidal ideation data. For participants missing suicidal ideation frequency data but having endorsed suicidal

thoughts in the last year/lifetime, median imputation was utilized. Median imputation was used due to the skewness of the variables.

Descriptive Statistics¹

Daily Heterosexist Experiences Questionnaire

Means and standard deviations for the combined harassment/victimization subscale and the vicarious trauma subscale from the DHEQ are presented in Table 2. One participant had a missing item on lifetime, but not last year direct discrimination, so mean imputation was used for that item. Both the DHEQ last year and lifetime direct discrimination/victimization subscales showed good internal consistency, with Cronbach's alphas of .89 and .92 respectively. Skewness and kurtosis were within limits for normality criteria for the lifetime direct discrimination/victimization subscale and were not different from scores reported elsewhere ($Mc^2=1.49$; $t(716)=-6.37$, $p = .064$; Balsam, Beadnell, & Molina, 2013). Kurtosis was outside of normality limits for the last year direct discrimination/victimization subscale and the data was leptokurtic. This scale was log transformed (John & Draper, 1980), but analyses were not significantly different using the transformed variable, so non-transformed data was used for analyses to allow for better interpretation. Scores on the last year scale were also comparable to scores reported elsewhere ($Mc^2=1.49$; $t(716)=-3.48$, $p = .230$; Balsam, Beadnell, & Molina, 2013).

Three participants had one missing item on the last year ambient discrimination/victimization subscale and one participant had one missing item on the lifetime ambient discrimination/victimization subscale, so mean imputation was used for those cases. The DHEQ last year and lifetime ambient discrimination/victimization subscales also showed good

¹ Measures presented in order of appearance in survey

internal consistency, with Cronbach's alphas of .88 and .91 respectively. Skewness and kurtosis were within limits for normality criteria for both last year and lifetime subscales. Scores on both last year and lifetime scales were similar to what has been reported in the literature ($Mc^2=4.52$, $t(716)=-1.54$, $p = .062$; $Mc^2=4.52$, $t(716)=-0.103$, $p = .44$; Balsam, Beadnell, & Molina, 2013).

The Psychache Scale

Means and standard deviations for both last year and lifetime psychological pain are presented in Table 2. Two participants had one missing item on the last year psychological pain scale while six had at least one missing item on the lifetime psychological pain scale. Mean imputation was used for those cases. Both the last year and lifetime scales showed good internal consistency with Cronbach's alphas of .97. Skewness and kurtosis were within limits for normality criteria. Mean scores and ranges for both last year and lifetime psychological pain were significantly higher than scores reported elsewhere in the LGBTQ literature (last year; $Mc^2=24.1$; $t(51)=-3.05$, $p = <.001$; lifetime; $Mc^2=24.1$; $t(53)=-6.36$, $p = <.001$) (Crain-Gully, 2010). No evidence of range restriction was present.

The Multidimensional Scale of Perceived Social Support

Means and standard deviations for both last year and lifetime social support are presented in Table 2. Three participants had one missing item on the last year social support scale while four participants had one missing item on the lifetime social support scale. Mean imputation was used for those cases. Both the last year and lifetime scales showed good internal consistency with Cronbach's alphas of .93 and .95 respectively. Skewness and kurtosis were within limits for normality criteria. Mean scores and ranges were similar to scores reported elsewhere in the LGBTQ literature (last year; $Mc^2=5.33$; $t(354)=1.85$, $p = .967$; lifetime; $Mc^2=5.33$; $t(335)= 5.84$, $p =.99$) (Balsam, Beadnell, & Molina, 2013).

The Self-Harm Behavior Questionnaire

The frequency and percentages of endorsement of various suicide-related behaviors as reported on the Self-Harm Behavior Questionnaire are presented in Table 2. The median frequency of suicidal ideation in the last year was 5 (SD=233.73) while lifetime suicidal ideation was 10 (SD=4065.55). Given the large range of both last year and lifetime suicidal ideation (last year; 0-365; lifetime; 0-50,000), median imputation was used on missing suicidal ideation data. Seven cases had missing data on the last year suicidal ideation variable while 29 had missing data on the lifetime suicidal ideation variable. Skewness and kurtosis were outside of the limits for normality, but transformation was not done given the large amount of skewness/kurtosis, ease of interpretability of the data, and that transforming count data is not typically recommended (Wilcox, 1998).

A total of 98 participants endorsed having suicidal ideation at least once in the past year (49% of the total sample) while 159 endorsed having suicidal ideation at least once in their lifetime (79.5% of the total sample). Prevalence rates of lifetime suicidal ideation on the SHBQ were comparable to another study done in LGBTQ young adults (69.7%; $z=-1.33$, $p=.183$; Ferguson, Horwood, & Beutrais, 1999). In terms of 12-month suicidal ideation prevalence rates, this sample had significantly higher rates compared to other 12-month prevalence rates in LGBT adults (15%; $z= -14.22$, $p<.01$; Skegg et al., 2003; 20%; $z = -5.24$, $p<.01$; Gilman et al., 2001).

Hypothesis Testing

Hypothesis 1A: It was hypothesized that direct discrimination/victimization experienced within the last year will be positively related to suicidal ideation within the last year. Using a Pearson correlation, significant, positive correlations were found between frequency of direct

discrimination/victimization experiences in the last year and frequency of suicidal ideation in the last year ($r=.244$, $p<.001$). A significant positive correlation was also found between frequency of lifetime direct discrimination/victimization and frequency of lifetime suicidal ideation ($r=.281$, $p<.001$).

Hypothesis 1B: It was hypothesized that ambient discrimination/victimization experienced within the last year is positively related to suicidal ideation within the last year, above and beyond the effects of direct discrimination/victimization within the last year. Using a hierarchical linear regression, last year direct discrimination/victimization was entered into step one while ambient discrimination/victimization was entered into step two. All assumptions for hierarchical linear regression were met. In step one, last year direct discrimination/victimization contributed significantly to the regression model ($F(1, 199) = 12.59$, $p<.001$) and accounted for 6% of the variance in last year suicidal ideation. Introducing last year ambient discrimination/victimization accounted for an additional 0.6% of the variance, which was not a significant change in R^2 ($\Delta R^2=.006$, $p=.257$). See table 4 for a summary of the hierarchical regression statistics.

The same process was repeated for lifetime suicidal ideation, lifetime direct discrimination/victimization, and lifetime ambient discrimination/victimization. All assumptions for hierarchical linear regression were met. In step one, lifetime direct discrimination/victimization contributed significantly to the regression model ($F(1, 199)= 17.01$, $p<.001$) and accounted for 7.9% of the variance in lifetime suicidal ideation. Introducing lifetime ambient discrimination/victimization did not explain any additional variance in lifetime suicidal ideation ($\Delta R^2=.001$, $p=.720$).

Hypothesis 2A: It was hypothesized that last year/lifetime direct discrimination/victimization would be positively correlated with last year/lifetime psychological pain. Using a Pearson correlation, last year direct discrimination/victimization was significantly, positively related to last year psychological pain ($r=.455, p<.001$). A significant positive correlation was also found between lifetime direct discrimination/victimization and lifetime psychological pain ($r=.331, p<.001$).

Hypothesis 2B: It was hypothesized that ambient discrimination/victimization within the last year/lifetime would explain additional, unique variance in psychological pain in the last year/lifetime, above the effects of last year/lifetime direct discrimination/victimization. Using a hierarchical linear regression, last year direct discrimination/victimization was entered into step one while last year ambient discrimination/victimization was entered into step two. All assumptions for hierarchical linear regression were met. In step one, last year direct discrimination/victimization contributed significantly to the regression model ($F(1, 199) = 51.67, p<.001$) and accounted for 20.7% of the variance in last year psychological pain. Introducing last year ambient discrimination/victimization accounted for an additional 5.7% of the variance, which was a significant change in R^2 ($\Delta R^2=.057, p<.01$). See table 5 for a summary of the hierarchical regression statistics.

The same process was repeated using lifetime direct and ambient discrimination/victimization and lifetime psychological pain. All assumptions for hierarchical linear regression were met. In step one, lifetime direct discrimination/victimization contributed significantly to the regression model ($F(1, 199) = 48.17, p<.001$) and accounted for 19.6% of the variance in lifetime psychological pain. Introducing lifetime ambient discrimination/victimization accounted for an additional 8.7% of the variance in lifetime

psychological pain, which was a significant change in R^2 ($\Delta R^2=.087$, $p<.001$). See table 5 for a summary of the hierarchical regression statistics.

Hypothesis 3: It was hypothesized that last year/lifetime psychological pain would be positively associated with last year/lifetime suicidal ideation. Pearson correlations showed significant positive associations between last year psychological pain and last year suicidal ideation ($r=.341$, $p<.01$) and lifetime psychological pain and lifetime suicidal ideation ($r=.177$, $p<.01$).

Hypothesis 4: It was hypothesized that last year psychological pain would mediate the association between last year direct discrimination/victimization and last year suicidal ideation. All assumptions for mediation were met. Last year direct discrimination/victimization was significantly related to last year suicidal ideation ($\beta =15.12$, $SE=4.26$, $p<.01$; C Path). Greater frequency of last year direct discrimination/victimization was associated with higher ratings of last year psychological pain ($\beta = 7.58$, $SE=1.05$; $p<.001$; A Path) and higher psychological pain was associated with greater frequency of suicidal ideation ($\beta =1.08$, $SE=.278$, $p<.01$; B Path). The bootstrapped analysis indicated a significant indirect effect ($R^2 = .050$; $\beta = 8.16$, $SE=2.55$, 95% CI = 4.24– 14.69, $p<.01$) indicating that last year psychological pain mediated the relationship between last year direct discrimination/victimization and last year suicidal ideation. After taking the mediator into consideration, the direct effect of last year direct discrimination/victimization on last year suicidal ideation was no longer significant ($\beta =6.98$, $SE=4.62$, $p=.134$; C' Path), indicating full mediation. See figure 2 for the mediation model.

It was also hypothesized that lifetime psychological pain would mediate the association between lifetime direct discrimination/victimization and lifetime suicidal ideation. Lifetime direct discrimination/victimization was significantly associated with greater frequency of

lifetime suicidal ideation ($\beta = 948.42$, $SE = 229.95$, $p < .01$; C Path). Greater frequency of lifetime direct discrimination/victimization was associated with higher ratings of lifetime psychological pain ($\beta = 6.20$, $SE = .894$, $p < .001$; A Path) but higher lifetime psychological pain was not associated with greater frequency of lifetime suicidal ideation ($\beta = 15.68$, $SE = 18.29$, $p = .392$; B Path). The bootstrapped analysis indicated a significant indirect effect ($R^2 = .028$; $\beta = 97.29$, $SE = 44.31$, 95% CI = 35.33–226.83, $p < .01$) indicating that lifetime psychological pain mediated the relationship between lifetime direct discrimination/victimization and lifetime suicidal ideation. The direct effect of direct discrimination/victimization on suicidal ideation remained statistically significant when the mediator was considered ($\beta = 851.13$, $SE = 256.57$, $p < .01$; C' Path), indicating partial mediation. See figure 3 for the mediation model.

Hypothesis 5: It also hypothesized that last year psychological pain would mediate the association between last year ambient discrimination/victimization and last year suicidal ideation. All assumptions for mediation were met. Greater frequency of last year ambient discrimination/victimization was associated with greater frequency of suicidal ideation in the last year ($\beta = 8.57$, $SE = 3.12$, $p < .01$; C Path). Greater frequency of ambient discrimination/victimization in the last year was associated with higher ratings of psychological pain in the last year ($\beta = 5.26$, $SE = .771$, $p < .001$; A Path) and higher psychological pain in the last year was associated with greater frequency of suicidal ideation in the last year ($\beta = 1.18$, $SE = .278$, $p < .01$; B Path). The bootstrapped analysis indicated a significant indirect effect ($R^2 = .035$; $\beta = 6.21$, $SE = 2.31$, 95% CI = 2.72–11.97, $p < .01$) indicating that last year psychological pain mediated the relationship between last year ambient discrimination/victimization and last year suicidal ideation. The direct effect of ambient discrimination/victimization on suicidal ideation

was not statistically significant when the mediator was considered ($\beta = 2.36$, $SE=3.32$, $p=.478$; C' Path), indicating full mediation. See figure 4 for the mediation model.

It was also hypothesized that lifetime psychological pain would mediate the association between lifetime ambient discrimination/victimization and lifetime suicidal ideation. Greater frequency of lifetime ambient discrimination/victimization was not significantly associated with greater lifetime suicidal ideation ($\beta = 359.58$, $SE=213.89$, $p=.094$; C Path). Greater frequency of ambient discrimination/victimization was associated with higher ratings of psychological pain ($\beta = 6.00$, $SE=.788$, $p<.01$) and higher lifetime psychological pain was associated with greater frequency of lifetime suicidal ideation ($\beta =37.44$, $SE=19.16$, $p=.05$). The bootstrapped analysis indicated a significant indirect effect ($R^2 = .013$; $\beta = 224.70$, $SE=166.45$, $95\% CI =37.61-680.07$, $p<.01$) indicating that lifetime psychological pain mediated the relationship between lifetime ambient discrimination/victimization and lifetime suicidal ideation. The direct effect of ambient discrimination/victimization on suicidal ideation was not statistically significant when the mediator was considered ($\beta =134.87$, $SE=241.51$, $p=.577$), indicating indirect-only mediation. See figure 5 for the mediation model.

Hypothesis 6A: It was hypothesized that last year/lifetime connectedness would moderate the relationship between last year/lifetime direct discrimination/victimization and last year/lifetime psychological pain. All assumptions were met for moderation. The results of the first moderation analyses revealed last year connectedness was negatively related to last year psychological pain ($\beta = -3.52$, $SE= .677$, $p= <.001$); last year direct discrimination was positively related to last year connectedness ($\beta =6.48$, $SE=1.05$, $p=<.001$); and there was no significant interaction between last year direct discrimination/victimization and last year connectedness predicting psychological pain ($\beta =.772$, $SE=.691$, $p=.265$).

The results of the next regression analyses revealed that lifetime direct discrimination/victimization was significantly associated with greater lifetime psychological pain ($R^2=.196$, $\beta =4.59$, $SE=1.31$, $p<.001$); greater lifetime connectedness was associated with lower lifetime psychological pain ($R^2=.292$, $\beta = -4.94$, $SE= 2.47$, $p<.001$); and that the interaction between lifetime direct discrimination/victimization and lifetime connectedness was statistically significant ($\beta =1.10$, $SE = .513$, $p=.033$), indicating a significant moderating relationship. While significant, the interaction only explained an additional 1.4% of the variance in lifetime psychological pain ($\Delta R^2= .014$, $F (1,196)= 4.62$, $p=.033$).

The results of the simple slopes analysis indicated that the relationship between direct discrimination/victimization and psychological pain was more positive for persons whose connectedness were one standard deviation above the mean ($\beta = 6.15$, $p<.001$; 95% CI = 3.96-8.33), as compared to persons who were at the average for connectedness ($\beta = 4.59$, $p<.001$; 95% CI = 3.00-6.18); and those who were one standard deviation below the mean for connectedness ($\beta = 3.03$, $p<.01$; 95% CI= .950-5.12). Further, since the beta coefficient for the group that was one standard deviation below the mean was outside that for the group that was one standard deviation above the mean, these two groups were significantly different from one another. See figure 6 for the simple slopes plot.

See Figure 7 for the Johnson-Neyman plot. The results from the Johnson-Neyman analysis indicated that with increasing levels of connectedness, the positive association between lifetime direct discrimination/victimization and lifetime psychological pain was enhanced. In other words, as connectedness increased, direct discrimination/victimization more strongly predicts psychological pain. Moreover, this moderation relationship was no longer statistically significant when scores were 1.67 points below the mean for connectedness.

Hypothesis 6B: It was hypothesized that last year/lifetime connectedness would moderate the relationship between last year/lifetime ambient discrimination/victimization and last year/lifetime psychological pain. The results of the first moderation analysis revealed a significant negative relationship between last year connectedness and last year psychological pain ($\beta = -3.53$, $SE = .678$, $p < .001$); a significant positive relationship between last year ambient discrimination/victimization and last year psychological pain ($\beta = 4.50$, $SE = .745$, $p < .001$); and no significant interaction between last year ambient discrimination/victimization and last year connectedness predicting psychological pain ($\beta = -.437$, $SE = .579$, $p = .451$).

The results of the next moderation analysis also revealed a significant negative relationship between lifetime connectedness and lifetime psychological pain ($\beta = -4.67$, $SE = .613$, $p < .001$); a significant positive relationship between lifetime ambient discrimination/victimization and lifetime psychological pain ($\beta = 4.60$, $SE = .740$, $p < .001$); and no significant interaction between lifetime ambient discrimination/victimization and lifetime connectedness predicting psychological pain ($\beta = -.588$, $SE = .506$, $p = .247$).

Hypothesis 7: It was hypothesized that last year/lifetime connectedness will moderate the relationship between last year/lifetime psychological pain and last year/lifetime suicidal ideation. The results of the first moderation analyses revealed no significant relationship between last year connectedness and last year suicidal ideation ($\beta = 1.06$, $SE = 3.04$, $p = .728$); a significant relationship between last year psychological pain and last year suicidal ideation ($\beta = 1.22$, $SE = .274$, $p < .001$); and no significant interaction between last year psychological pain and last year connectedness predicting last year suicidal ideation ($\beta = -.246$, $SE = 1.71$, $p = .151$).

Results of the second moderation analyses revealed no significant relationship between lifetime connectedness and lifetime suicidal ideation ($\beta = -.709$, $SE = 214.34$, $p = .744$); a

significant positive relationship between lifetime psychological pain and lifetime suicidal ideation ($\beta = 38.61$, $SE = 19.94$, $p = .05$); and no significant interaction between lifetime psychological pain and lifetime connectedness predicting lifetime suicidal ideation ($\beta = -20.92$, $SE = 11.67$, $p = .074$).

DISCUSSION

The goal of this study was to examine both ambient and direct discrimination/victimization's relationship to suicidal ideation and to see if these hypothesized relationships are mediated and moderated by other variables such as psychological pain and social connectedness. Few studies have looked at how direct/ambient discrimination/victimization relate to suicidal ideation and those that have, used a dichotomous measure of suicidal ideation or have not used validated measures assessing discrimination/victimization. It was hypothesized that both ambient and direct discrimination/victimization (measured for both last year and lifetime) would be positively associated with last year/lifetime suicidal ideation and that these relationships would be mediated by psychological pain and moderated by social connectedness. The study provided support for some of the hypotheses. The relationships between direct/ambient discrimination/victimization and suicidal ideation were mediated by psychological pain and ambient discrimination/victimization actually explained additional, unique variance in psychological pain (but not suicidal ideation) above the effects of direct discrimination/victimization. In addition, the relationship between last year direct discrimination/victimization and last year psychological pain was moderated by social connectedness, although social connectedness did not moderate any other hypothesized relationships.

Interestingly, the relationships between both last year and lifetime ambient discrimination/victimization and last year and lifetime suicidal ideation were mediated by psychological pain. Little research has been conducted in the area of ambient discrimination/victimization in the LGBTQ community and mental health, let alone looked at mediators in this relationship. While no literature has examined mediators in the aforementioned relationship, research in the area of vicarious trauma has found certain cognitive/emotional states mediate the relationship between experiencing indirect events and negative behaviors (Linares et al., 2001; Schwartz & Gorman, 2003). For example, mothers' reports of exposure to violence in their communities was related to their children's behavior problems through maternal PTSD symptoms (Linares et al., 2001). Similarly, the relationship between community violence exposure in children and academic functioning has been found to be mediated by symptoms of depression and disruptive behavior (Schwartz & Gorman, 2003). In the suicide literature, exposure to suicide (knowing someone who attempted or completed suicide) was related to future suicidal ideation through increased cognitions regarding the acceptability of suicide (Kleiman, 2005). Research in other areas have also found links between exposure to indirect events, cognitive states, and negative cognitions (Aubrey, 2007). In the body image literature, for example, one study found exposure to sexually-objectifying media was related to body self-consciousness through body surveillance, or how often one has thoughts about their body (Aubrey, 2007).

Looking at the mediational differences between last year and lifetime variables, last year psychological pain fully mediated the last year ambient discrimination/victimization and last year suicidal ideation relationship, while this relationship was indirectly-only mediated for the lifetime variables. The last year mediation analysis could have been fully mediated due to the

recency of the variables. Indeed, these results are in line with the recency effect, which shows that more recent material is more easily remembered (Baddeley & Hitch, 1993). Therefore, psychological pain reported on during the last year may be more salient for individuals and may account for more of the relationship between ambient discrimination/victimization and suicidal ideation. In addition, research has found that events associated with emotions are more easily recalled than events not associated with an emotional response (LaBar, 2007), so the recall of ambient discrimination/victimization may also be enhanced if psychological pain is experienced as a result.

In terms of the lifetime mediation, indirect-only mediation can be the result of multiple indirect effects (some which are positive, some which are negative) that may sum out and explain why the total relationship between ambient discrimination/victimization and suicidal ideation is non-significant (Hayes, 2013). For example, there may be different sub-groups of individuals in the sample where ambient discrimination/victimization has a different relationship to suicidal ideation. For example, individuals with low levels of authoritarianism, beliefs that people should obey those who are in power, may be more resilient when faced with ambient discrimination/victimization. These people may also have an emotional reaction to ambient discrimination/victimization but instead of their psychological pain leading to suicidal thoughts, they may channel their emotions toward resisting those in power by seeking societal change and getting involved in LGBTQ causes. Indeed, research has shown that individuals with low levels of authoritarianism were more likely to participate in social activism events (Duncan, 1998). Other research has found LGBTQ individuals report that witnessing anti-gay politics does appear to increase resiliency to distress through understanding the importance of coming together as a community, confronting internalized homophobia, expressing affect, and through increased

LGBTQ community/family and friends social support (Russell & Richards, 2003). Social support/bonding with other like-minded individuals may play a particularly important role in the protection against suicidal ideation, considering many research studies have found evidence for a negative association between social connectedness and suicidality (He, Fulgintini, Finno-Velazques, 2015; Smith et al., 2016; Stone, Luo, Lippy, & McIntosh, 2015). For others, experiencing ambient discrimination/victimization may lead to psychological pain or other negative cognitive/emotional states, which contribute to suicidal ideation. Similarly, witnessing negative events seems to confer risk for mental distress. For example, children with PTSD who also reported witnessing domestic violence had more severe PTSD symptoms compared to children who had PTSD who did not witness domestic violence (Silva et al., 2000). There may also be individual differences in how one responds to ambient discrimination/victimization that exacerbates its relationship to suicidal ideation. One study found individuals who ruminate frequently on events also were more likely to have suicidal ideation over a one-year follow-up period (Miranda & Nolen-Hoeksema, 2007), so it is possible that some people who experience ambient discrimination/victimization may think repeatedly about the event, which could contribute to suicidality. In general, research has shown that people can have different responses to similar events, depending on factors such as temperament and genetics (Belsky & Pluess, 2009). These effects may only be applicable to lifetime variables versus last year variables as it may take a longer period of time for certain responses to occur. For example, it may take individuals a longer period of time to confront and resolve internalized homophobia. McLaren (2015) found a correlation between age and reported levels of internalized homophobia, indicating older individuals tend to report lower levels of internalized homophobia. Over one's

lifetime, resolution of internalized homophobia may therefore serve as a protective factor against suicidal ideation in the face of ambient discrimination/victimization.

It is also possible that the relationship between lifetime ambient discrimination/victimization and suicidal ideation may be more complicated than last year reports and there may be other variables (e.g. hopelessness, substance use, emotional suppression) involved in this relationship that were not measured in the current study (Bonnano & Hymel, 2010; Mereish et al., 2014; Richards & Gross, 2006). For example, emotional suppression has been shown to be related to worse memory recall of emotionally-charged events (Richards & Gross, 2006). People experiencing frequent psychological pain over their lifetime as a result of ambient discrimination/victimization may be more likely to start suppressing their emotional response in order to attempt to cope with the stressor, which may actually inhibit their ability to recall experiences of lifetime ambient discrimination/victimization, which could have impacted the ability to detect a relationship between ambient discrimination/victimization and suicidal ideation.

In general, these significant mediation results for ambient discrimination/victimization could be explained by research showing that people tend to feel emotions similar to what members of their social group are feeling (Kessler & Holbach, 2005; Smith, 1993). For example, research on group-based emotions posits that events affecting groups of similar individuals trigger similar emotions in each group member (Smith, 1993). Given the current study also showed that experiencing direct discrimination/victimization could lead to psychological pain and suicidal ideation and the findings on group-based emotions, the results seen with ambient discrimination/victimization could be due to this direct experience to ambient experience phenomenon. For example, if someone experiencing direct

discrimination/victimization also experiences psychological pain and relayed this information to another member of their group, not only would that group member report experiencing ambient discrimination/victimization (from hearing about direct discrimination/victimization occurring to a similar individual), but they may also experience psychological pain as a result of group-based emotions.

Another explanation of these mediational findings may be that individuals experiencing ambient discrimination/victimization may feel they do not fit in with society given what they see said about or experienced by people they feel they have a shared identity with. As a result, individuals, seeing the social exclusion of similar others, may themselves feel socially excluded, which could lead to feelings of psychological pain. Cacioppo, Fowler, and Christakis (2009) conducted research that indicated feelings of loneliness tend to occur in clusters within social networks. Indeed, research has shown individuals who feel socially excluded describe their feelings as “painful” (Leary, 2001; Macdonald & Leary, 2005) and actually display similar activation of brain areas that have been linked to physical pain (Eisenberger, Lieberman, & Williams, 2003). Social exclusion has also been associated with suicidal ideation and behaviors (Baldry & Winkel, 2003; Yur’yev et al., 2013).

Similar to the findings with ambient discrimination/victimization, the relationships between both last year and lifetime direct discrimination/victimization and last year and lifetime suicidal ideation were mediated by psychological pain. Other literature has linked the experience of direct discrimination/victimization to suicidal ideation (de Graff et al., 2006; Irwin et al., 2014; Rivers & Cowie, 2006; Russell et al., 2011), although few studies have examined mediators in this specific relationship. Mereish, O’Cleirigh, and Bradford (2014) found evidence for substance abuse mediating the relationship between experiencing victimization and suicidal

ideation in LGBT individuals. Similarly, there have also been other studies in the LGBTQ literature that have examined mediators in the relationship between stressful life events and suicidal ideation. Baams, Grossman, and Russell (2015) found perceived burdensomeness mediated the relationship between coming-out stress and depression and suicidal ideation. Another study examined certain facets of minority stress in transgender individuals and found these were related to suicidal ideation through perceived burdensomeness and thwarted belongingness (Testa et al., 2017). The findings in the current study linking direct discrimination/victimization to suicidal ideation through the experience of psychological pain are in line with the above research showing the experience of stressful life events can lead to depression/suicidal ideation through cognitive variables.

Looking at the mediational differences between last year and lifetime direct discrimination/victimization variables, last year psychological pain fully mediated the last year direct discrimination/victimization and last year suicidal ideation relationship, while this relationship was only partially mediated for the lifetime variables. It appears that, for recent experiences of direct discrimination/victimization, psychological pain is a good explanatory pathway from discrimination/victimization to suicidal ideation. However, for past experiences of direct discrimination/victimization, psychological pain only explains part of the pathway between discrimination/victimization and suicidal ideation. It seems likely that there are other factors (perceived burdensomeness, thwarted belongingness; Woodward, Wingate, Gray, & Pantalone, 2014) that are being recalled that may impact this relationship.

Similar to what was mentioned above relative to ambient discrimination/victimization, the last year mediational analysis could have been fully mediated due to the recency/saliency of the variables being measured. Indeed, the more recent an event, the more accurate an individual

is in reporting said event (Baddeley & Hitch, 1993). Lifetime psychological pain may not be remembered as accurately as more recent last year psychological pain; thus, memory issues may introduce error variance into the lifetime mediation relationship. In addition, research has found that individuals who report on more recent physical pain tend to report that pain as more severe compared to past physical pain (Stull et al., 2009). This recency effect may explain why psychological pain fully mediates the more recent relationship between direct discrimination/victimization and suicidal ideation while only partially explaining the lifetime relationship between those variables. The recency of last year psychological pain could be interpreted as more severe compared to when individuals report on lifetime psychological pain, giving psychological pain more explanatory power on the last year variables.

In terms of the lifetime mediation analysis, partial mediation was observed, indicating that psychological pain did not fully explain the relationship between direct discrimination/victimization and suicidal ideation. Again, this difference that was observed between last year and lifetime variables could be due to the presence of other variables not measured in this study impacting the lifetime mediation analysis. For example, experiencing direct discrimination/victimization may lead to feelings of unsafety (Pritchard, 2013) and feelings of unsafety have been associated with suicidal ideation (Toomey, McGuire, & Russell, 2012). Thus, in the current sample, perceptions of safety may impact whether ones experiences suicidal ideation in the face of direct discrimination/victimization. Furthermore, given that a lot of victimization/discrimination may occur during adolescence (Modecki et al., 2014; Williams & Guerra, 2007), lifetime reports on direct discrimination/victimization, psychological pain, and suicidal ideation may be influenced by other variables that occur during adolescence, such as substance use and identity establishment (Reisner et al., 2015; Tharp-Taylor, Haviland, &

D'Amico, 2009). For example, Reisner et al. (2015) found transgender youth, compared to cis-gender youth, reported more frequent bullying experiences along with more frequent substance use. Individuals with frequent substance use tend to be more likely to report suicidal ideation (Poorolajai et al., 2016). Therefore, it is possible that partial mediation was observed because substance use and other unmeasured maladaptive coping methods could also explain why there is a relationship between direct discrimination/victimization and suicidal ideation.

In general, the experience of direct discrimination/victimization could lead one to experience feelings of rejection (Feinstein, Goldfriend, & Davila, 2012). These feelings of personal rejection may lead one to feel unconnected from society and therefore lead to psychological pain/suicidal ideation, similar to what is mentioned above regarding the effects of ambient discrimination/victimization. Direct discrimination/victimization in general could also lead to other variables associated with psychological pain, such as low self-esteem or feelings of embarrassment/shame (Khantzian, 1997; Meerwijk & Weiss, 2011; Schneidman, 1996). Indeed, Schneidman (1996) hypothesized that feelings of psychological pain would arise due to intense feelings of shame, guilt, or loneliness. LGBTQ individuals often report feeling shame when confronted with an unaccepting view from society (Lee, Kochman, & Sikkema, 2002). Additionally, given that these findings are correlational in nature, the experience of psychological pain and suicidal ideation may not be directly related to experiences of direct discrimination/victimization. It could be that individuals who experience more discrimination/victimization tend to also live in geographic locations that are less accepting of the LGBTQ community. LGBTQ individuals who live in these areas may be less likely to have access to stability in these communities. For example, they may be less likely to be hired for a job (Badgett et al., 2007). Indeed, research has found lack of employment is associated with a

myriad of mental health symptoms/distress (Paul & Moser, 2008), so feelings of instability resulting from unaccepting communities may contribute to psychological pain and suicidal ideation.

Next, this study found ambient discrimination/victimization predicted psychological pain above the effects of direct discrimination/victimization. This finding is in line with research across other fields showing that both direct and vicarious trauma experiences are related to negative mental health outcomes, such as psychological distress, PTSD, and substance abuse (Fitzpatrick & Boldizar, 1993; Nadal et al., 2014; Rivers et al., 2009; Tobler et al., 2013).

Interestingly, the ambient discrimination/victimization variables explained additional variance in psychological pain above the direct discrimination/victimization variables, suggesting that there may be different pathways through which ambient and direct discrimination/victimization lead to psychological pain. Direct experiences of discrimination/victimization have been shown to lead one to have feelings such as low self-esteem, self-hatred, shame, and feelings of burdensomeness and thwarted belongingness (Testa et al., 2017; Schmitt, Branscombe, Postmes, Garcia, 2014). These feelings may then contribute to increased psychological pain.

On the other hand, experiencing ambient discrimination/victimization may lead individuals to not only feel negative emotions similar to what is experienced by direct trauma survivors, but thoughts/feelings regarding the appropriateness of feeling these emotions. Indeed, some trauma therapists have reported feelings of intense shame and guilt as a result of experiencing vicarious trauma through their work with their clients (Jankoski, 2010). These thoughts/feelings related to the appropriateness of experiencing vicarious trauma may lead individuals to feel they are not entitled to experience those emotions for experiences they did not directly have, which may lead to individuals suppressing their emotions. Suppressing emotions

has been shown to actually increase mental health distress (Bond & Brunce, 2010; Feldner, Zvolensky, Eifert, & Spira, 2003), and could potentially contribute to psychological pain. Therefore, individuals experiencing ambient discrimination/victimization may go through a different, additional experience compared to those who experience direct discrimination/victimization, which may explain why ambient discrimination/victimization explains additional variance in psychological pain.

While ambient discrimination/victimization explained additional unique variance in psychological pain above the effects of direct discrimination/victimization, ambient discrimination/victimization did not explain additional variance in suicidal ideation above the contribution of direct discrimination/victimization. In other words, for psychological pain, there appears to be different pathways at work for direct and ambient experiences, but this may not be the case for suicidal ideation. One explanation for this could be that individuals who experience direct discrimination/victimization may feel more of the need to escape their situation compared to those experiencing only ambient trauma. Suicidality has been posited to be a means by which one can escape their present circumstances (Baumeister, 1990). Additionally, experiencing direct discrimination/victimization may contribute more to feelings of hopelessness, especially if the individual deems their circumstances to be inescapable. On the other hand, experiencing ambient discrimination/victimization may not explain additional variance in suicidal ideation as ambient experiences may not lead to the same feelings of hopelessness and desire to escape. Indeed, while individuals may report psychological pain resulting from ambient discrimination/victimization, some research has shown that ambient experiences may actually increase positive coping mechanisms and resilience through participation in activism and social support (Russell & Richards, 2003).

Lastly, this study found the relationship between lifetime direct discrimination/victimization and psychological pain was moderated by social connectedness. Interestingly, this study found the opposite of what has been reported in the literature. Typically, research has presented evidence of the protective role social connectedness plays against negative mental health outcomes when one experiences stressful life events (Rigby & Slee, 1999; Stone, Luo, Lippy, McIntosh, 2015; Wei, Wang, Heppner, & Du, 2012). Specifically in the LGBTQ community, social connectedness has been shown to moderate the association between negative life events such as discrimination/bullying and negative mental health outcomes, such as psychological distress and aggressive/suicidal behaviors (Craney, Watson, Brownfield, & Flores, 2018; Duong & Bradshaw, 2014).

However, in the present study, at increasing levels of social connectedness, the relationship between lifetime direct discrimination/victimization and psychological pain was counterintuitively strengthened. These results could have a number of explanations. First off, with individuals experiencing high amounts of discrimination/victimization and high levels of social connectedness, there may also be large amounts of co-rumination with supportive peers, which could serve to actually magnify the effects of psychological pain. In depression research, co-rumination, or continuous discussion of negative events/mental states with social supports, actually served to increase ruminative thinking patterns (Stone & Gibb, 2015), which have been associated with increased depressive symptoms and suicidal ideation (Miranda & Nolen-Hoeksema, 2007). Similarly, frequent discussion of direct discrimination/victimization experiences with social supports may actually increase psychological pain through increased rumination. Additionally, individuals who report having more social support may incidentally have more individuals to talk to that have been exposed to ambient discrimination/victimization.

Given that this study found that experiencing ambient discrimination/victimization explained additional variance in psychological pain above the effects of direct discrimination/victimization, people reporting more social support may not only be exposed to more ambient discrimination/victimization, but that exposure could lead them to feel more psychological pain as a result.

Limitations

While this study had a number of interesting findings regarding how direct/ambient discrimination/victimization relate to suicidal ideation, there exist a number of limitations that warrant consideration. First, a large portion of the total sample (36%) did not complete the entire survey and had to be excluded from final analyses due to missing data on the outcome variable (which was the last measure in the survey). This rather high study drop-out rate may have been due to the lengthy nature of the survey. Also, although the study was advertised to participants as a study examining the effects of discrimination/victimization and suicidality, many participants may have found the questions asked to be uncomfortable and therefore chose not to complete the entire survey. The portion of individuals who did not complete the survey were compared on demographic/study variables to see if this group differed from the group who completed the entire survey and it was found that survey completers had higher levels of graduate-level education compared to survey non-completers. Similarly, previous research has found individuals with higher levels of education tend to be more willing to participate in clinical research trials compared to individuals with lower levels of education (Baquet, Commiskey, Mullins, & Mishra, 2006). Possessing a sample with higher education may limit the generalizability of these findings. However, education was not correlated with any study variables.

The second limitation of this study is that it was cross-sectional and therefore correlational in nature, which limits the ability to infer any causal implications. Due to this, experiencing direct/ambient discrimination/victimization may not cause future psychological pain or suicidal ideation. Indeed, individuals who report more frequent suicidal ideation and more intense psychological pain may just be more prone to experience discrimination/victimization. For example, individuals who are suicidal may experience more discrimination/victimization as a result of their suicidal ideation/psychological pain. Those with suicidal ideation may feel stigma/discrimination due to their mental health concerns (Sudak, Maxim, & Carpenter, 2008). However, the discrimination/victimization measure used in the current study asked specifically about discrimination/victimization experienced as a result of being LGBTQ, so the suggestion that suicidal ideation and psychological pain leads one to experience discrimination/victimization related to one's LGBTQ status isn't logical, thus increasing the plausibility of the directionality hypothesized in this study. However, one could argue that perceptions of discrimination/victimization may impact how people responded to the discrimination/victimization questionnaire used in this study, such that individuals may have interpreted mental health-based discrimination as discrimination based on LGBTQ status. To account for this, mediation analyses were re-run with the variables places in the opposite order from what was hypothesized. These results were either insignificant or significant with effects that were much smaller than the effects from the original mediation analyses, providing further support for the model hypothesized. Future research could use a longitudinal design to elucidate the temporal nature of these variables.

Next, this survey was conducted through an online self-report, which introduces a number of potential limitations. Lack of accurate responding is a realistic concern with online

surveys (Wright, 2005), so results may be impacted due to potential participant inattentiveness during the survey. To attempt to account for this, data was screened for seemingly random responding by excluding participants who displayed atypical response patterns (e.g. reporting the same number on all items). In contrast to random-responding, social desirability is a concern in self-report studies (Arnold & Feldman, 1981). Particularly in this study, all measures in the survey were relatively face-valid, which may have made socially desirable responding easier. However, the anonymous, on-line format of the survey may have reduced participant demand characteristics for social desirability in responding overall. Additionally, given the difficulty individuals report in discussing topics related to mental health and suicide in particular (Corrigan & Watson, 2002), individuals may not wish to disclose details regarding personal experiences with suicidality and psychological pain. However, when studying suicide-related behaviors in particular, self-report measures tend to yield greater disclosure than in-person interviews (Corrigan & Watson, 2002; Kaplan, Asnis, Sanderson, Keswani, de Lecouna, & Joseph, 1994). Participants in this study, therefore, may actually have been more likely to disclose information on suicidality given the anonymous, online survey format. Additionally, there may be concerns given that the data is self-report and multiple informants/behavioral observations were not used in this study. Self-report is typically an accepted means through which to gather data on suicidality, which is a largely internal process (Manassis, Tannock, & Monga, 2009). Indeed, observer reports of internalizing symptoms tend not to be as predictive of an internalizing diagnosis as compared to self-reports (Manassis, Tannock, & Monga, 2009). Nevertheless, future research should attempt to use multiple informant reports when possible and potentially observer reports of participant experiences and behavior to reduce any potential bias.

Next, the suicidal ideation frequency variable used in analyses was highly skewed, which may have impacted analyses. In suicide research, having skewed suicide-related variables is not an infrequent occurrence (Kleiman & Beaver, 2013; Najmi, Wegner, & Nock, 2007). While violations of normality assumptions typically lower one's power to detect an effect (Wilcox, 1998), the data was still adequately distributed enough to find effects. Additionally, it has been recommended in the literature not to transform count data (O'hara & Kotze, 2010), so transformations were not performed on the suicidal ideation variable in this study.

It is also possible that recollection issues may have impacted survey results in some way. Reports on lifetime data in particular may have been greatly affected by problems with memory recall and therefore may not be assumed to be completely accurate. However, people tend to actually underreport the severity of past experiences of pain (Stull et al., 2009), so lifetime results could actually be an underestimate of true effects. Additionally, given that many reported instances of discrimination/victimization and suicidal ideation occur in adolescence (Modecki et al., 2014; Williams & Guerra, 2007), it was important to gather lifetime data in order to be certain important effects were not being missed. In an attempt to also gather results less biased by recollection problems, last year ratings of each variable were also collected. Given the similar findings for both lifetime and last year variables, it can be inferred that the results were not completely biased by recollection bias.

Lastly, these findings may not generalize to all members of the LGBTQ community. The sample used in these analyses was primarily recruited from LGBTQ community groups. Individuals participating in these types of groups may be more likely to endorse mental health distress and experiences of discrimination/victimization as those may be reasons why they sought out the support of an LGBTQ community group. Indeed, this sample reported unusually

high levels of suicidal ideation and psychological pain, even for studies in the LGBTQ field. This may partially be due to how the study was advertised. The study advertisement directly stated that the study was measuring suicidality, so individuals who have had suicidal ideation may have been more likely to take the survey. Additionally, considering this sample was made up of a relatively large number of transgender individuals (30%), and considering transgender individuals endorse higher rates of suicidal ideation (Haas et al., 2010), this may have also contributed to the relatively high rates of suicidal ideation in this sample. This sample may also be different in that LGBTQ individuals participating in LGBTQ groups are at least partially “out” regarding their sexuality. Results of the study may look different for those individuals who have not expressed their sexual orientation to anyone else. For example, individuals who are “out” may actually have more frequent experiences with discrimination/victimization (Russell, Toomey, & Ryan, 2014) and therefore may have more mental health distress as a result.

Despite this, there are still aspects of the sample that would be generalizable to the LGBTQ population overall. For example, the rates of discrimination/victimization reported in this study were similar to rates reported elsewhere (Balsam, Beadnell, & Molina, 2013). Therefore, the discriminatory experiences reported in this study appear to be similar to what other LGBTQ individuals may endorse. Additionally, within this sample, levels of social support were similar to what has been reported elsewhere (Balsam, Beadnell, & Molina, 2013).

Summary and Future Directions

Despite the aforementioned limitations, this study also had a number of substantial strengths. First, this study is unique in that it was one of the first to explore the mental health effects of ambient discrimination/victimization. Additionally, no research has examined whether ambient experiences are associated with suicidal ideation, let alone looked at mechanisms for

why these constructs may be related. Second, while there is some literature finding an association between experiences of direct discrimination/victimization and suicidal ideation, this study is the first to explore a mechanism in this relationship as well. An additional strength is the sample itself, which consisted of a rather large percentage of transgender individuals, who have unfortunately been underrepresented in many studies.

Future research should continue to explore the potentially harmful effects of discriminatory experiences on mental health. For example, future research should see if both direct/ambient experiences are related to other mental health symptoms such as depression and anxiety or other factors associated with suicidal behavior, such as perceived burdensomeness, thwarted belongingness, low self-esteem, and shame. These variables should also be looked at as mediators in the relationship between discrimination/victimization and suicidal ideation and should be examined using longitudinal methods to infer true temporal mediation. Similarly, other aspects of suicidality should be explored to see if ambient/direct discrimination/victimization may not only confer risk for suicidal ideation, but also for suicide planning, threats, attempts, and non-suicidal self-injury.

In addition, considering the moderation analysis that was significant in this study had a rather small effect size and that the other moderation analyses explored in this study were nonsignificant, it would be important to replicate this finding to ascertain if this is a true effect or if the effect was due to random variation in the data. This could be done through the collection of larger sample sizes collected from a wider variety of sources (e.g. different community groups, LGBTQ bars/night clubs). Similarly, future research should attempt to find other variables that may confer protection against the potentially harmful effects of discrimination/victimization, such as cognitive thinking styles and coping skills.

Lastly, future research should explore these phenomena using more advanced methodological designs, including experimental and longitudinal methods. Experimental research could use confederates to perform direct/ambient discrimination upon LGBTQ participants in an experimental group and compare levels of psychological pain to those in a control group to see if those in the experimental group display higher levels of psychological pain than those in the control group. Similarly, longitudinal research may employ multiple assessment periods to determine temporal associations between discrimination, psychological pain, and suicidal ideation, such as an assessment each year an LGBTQ person is in college. Researchers may employ these more advanced methods to garner stronger support regarding the impact of discrimination/victimization. Nevertheless, this study provides a platform for which future research on the role discriminatory experiences plays in suicidality.

Table 1: *Demographics*

<u>Variable</u>		<u>N (%)</u>	<u>Mean</u>	<u>SD</u>
<u>Age</u>		193 (97%)	34.99	13.65
<u>Education</u>	Did not complete high school	1 (0.5%)		
	High school/GED	14 (7%)		
	Some college	45 (22.5%)		
	Bachelor's degree	49 (24.5%)		
	Master's degree	55 (27.5%)		
	Advanced graduate work/Ph.D.	36 (18%)		
<u>Race/Ethnicity*</u>	Asian	13 (6.5%)		
	Black/African-American	5 (2.5%)		
	Caucasian	172 (86%)		
	Hispanic/Latina(o)	13(6.5%)		
	American Indian/Alaskan Native	4 (2%)		
	Arab/Middle Eastern	1 (0.5%)		
	More than 1 race	3 (1.5%)		
	Other	7 (3.5%)		
<u>Sexual Orientation</u>	Lesbian	47 (23.5%)		
	Gay	34 (17%)		
	Bisexual	45 (22.5%)		
	Queer	46 (23%)		
	Heterosexual	7 (3.5%)		
	Other	21 (10.5%)		

Table 1: *Demographics (continued)*

<u>Variable</u>		<u>N (%)</u>	<u>Mean</u>	<u>SD</u>
<u>Gender Identity</u>	Female	107 (53.5%)		
	Male	61 (30.5%)		
	Non-binary	23 (11.5%)		
	Other	9 (4.5%)		
<u>Transgender Identity</u>	Yes	59 (29.5%)		
	No	136 (68%)		
	Prefer not to say	5 (2.5%)		
<u>Region of Living</u>	Northeast	26 (13%)		
	Midwest	47 (23.5%)		
	West	36 (18%)		
	South	88 (44%)		
	Do not live in US	3 (1.5%)		
<u>Marital Status</u>	Married	53 (26.5%)		
	Single	129 (64.5%)		
	Widowed	3 (1.5%)		
	Divorced	15 (7.5%)		
	Do not live in US	3 (1.5%)		
	Northeast	26 (13%)		
	Midwest	47 (23.5%)		
	West	36 (18%)		
	South	88 (44%)		
	Do not live in US	3 (1.5%)		

*This variable does not add up to 100% due to multiple responses

Table 2: *Descriptive Statistics on Independent and Dependent Variables*

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>Min</u>	<u>Max</u>	<u>Skewness</u>	<u>Kurtosis</u>	<u>Cronbach's Alpha</u>
<u>DD-LY</u>	200	1.72	.846	1	5.30	1.97	4.55	.90
<u>DD-LT</u>	200	2.18	1.06	1	6	1.39	1.84	.92
<u>AD-LY</u>	200	4.20	1.19	1	6	-.392	-1.190	.88
<u>AD-LT</u>	200	4.50	1.20	1	6	-.669	-.165	.90
<u>PP-LY</u>	200	30.29	14.29	13	65	.650	.666	.97
<u>PP-LT</u>	200	37.27	15.10	13	65	.058	-1.19	.97
<u>MSPSS – LY</u>	200	5.12	1.29	1	7	-.882	.649	.93
<u>MSPSS -LT</u>	200	4.62	1.42	1	7	-.279	-.531	.95
<u>SI-LY</u>	200	0 ^a (49%) ^b	N/A	0	365	5.51	31.91	N/A
<u>SI-LT</u>	200	6 ^a (79.5%) ^b	N/A	0	5000 0	13.03	177.32	N/A

Note: a – median score

b – the percentage of the sample who had suicidal ideation in the last year/lifetime

Table 3: Intercorrelations of Variables of Interest

	1	2	3	4	5	6	7	8	9
1. DD-LY	1								
2. DD-LT	.762**	1							
3. AD-LY	.508**	.472**	1						
4. AD-LT	.386**	.497**	.071	1					
5. PP – LY	.455**	.331**	.436**	.359**	1				
6. PP - LT	.405**	.442**	.471**	.476**	.676**	1			
7. MSPSS – LY	-.259**	-.203**	-.208**	-.133	-.411**	-.347**	1		
8. MSPSS – LT	-.276**	-.266**	-.306**	-.286**	-.358**	-.540**	.671**	1	
9. SI – LY	.244**	.202**	.137	.119	.244**	.255**	-.141*	-.150*	1
10. SI – LT	.335**	.281**	.192*	.153*	.335**	.177*	-.083	-.128	.396*

Note: * $p < .01$, ** $p < .001$

Direct discrimination/victimization (DD); Ambient discrimination/victimization (AD); Psychological pain (PP); Multidimensional Scale of Perceived Social Support (MSPSS); Suicidal ideation (SI); Last year (LY); Lifetime (LT)

Table 4: Summary of Hierarchical Regression Analysis for Variables Predicting Suicidal

Ideation

Variables	B	SE β	β	R ²	ΔR^2
Step 1				.060	
Constant	-11.50	8.21			
DD – LY	15.12	4.26	.244		
Step 2				.066	.006
Constant	-23.63	13.47			
DD – LY	12.26	4.94	.198		
AD – LY	4.06	3.58	.091		
Step 1				.079	
Constant	-1626.74	558.05			
DD- LT	948.42	229.95	.281		
Step 2				.080	.001
Constant	-1344.54	965.56			
DD - LT	995.78	265.63	.295		
AD - LT	-85.61	238.79	-.028		

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Direct discrimination/victimization (DD); Ambient discrimination/victimization (AD)

Table 4: Summary of Hierarchical Regression Analysis for Variables Predicting

Suicidal Ideation (continued)

Variables	<i>t</i>	Zero -order	Partial	Part
Step 1				
Constant	-1.40			
DD – LY	3.55***	.244	.244	.244
Step 2				
Constant	-1.75			
DD – LY	2.48**	.244	.174	.171
AD – LY	1.14	.192	.081	.078
Step 1				
Constant	-2.92***			
DD- LT	4.13***	.281	.281	.281
Step 2				
Constant	-1.39			
DD - LT	3.75***	.281	.258	.256
AD - LT	-.359	.119	-.026	-.025

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Direct discrimination/victimization (DD); Ambient discrimination/victimization (AD)

Table 5: Summary of Hierarchical Regression Analysis for Variables Predicting Psychological Pain

Variables	B	SE β	β	R ²	ΔR^2
Step 1				.207	
Constant	17.19	2.03			
DD – LY	7.58	1.06	.455		
Step 2				.264	.057***
Constant	7.24	3.22			
DD – LY	5.24	1.18	.314		
AD – LY	3.33	.856	.276		
Step 1				.196	
Constant	23.76	2.17			
DD- LT	6.20	.894	.442		
Step 2				.283	.087***
Constant	9.63	3.55			
DD - LT	3.83	.975	.273		
AD - LT	4.29	.877	.340		

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Direct discrimination/victimization (DD); Ambient discrimination/victimization (AD)

Table 5: Summary of Hierarchical Regression Analysis for Variables Predicting

Psychological Pain (continued)

Variables	<i>t</i>	Zero - order	Partia <i>l</i>	Part
Step 1				
Constant	8.46***			
DD – Last Year	7.19***	.455	.455	.455
Step 2				
Constant	2.45*			
DD – Last Year	4.43***	.455	.301	.271
AD – Last Year	3.89***	.436	.267	.238
Step 1				
Constant				
DD- Lifetime	10.96***	.442	.442	.442
Step 2				
Constant				
	6.94***			
DD - Lifetime	2.72***	.442	.269	.237
	3.93***			
AD - Lifetime	4.89***	.476	.329	.295

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Direct discrimination/victimization (DD); Ambient discrimination/victimization (AD)

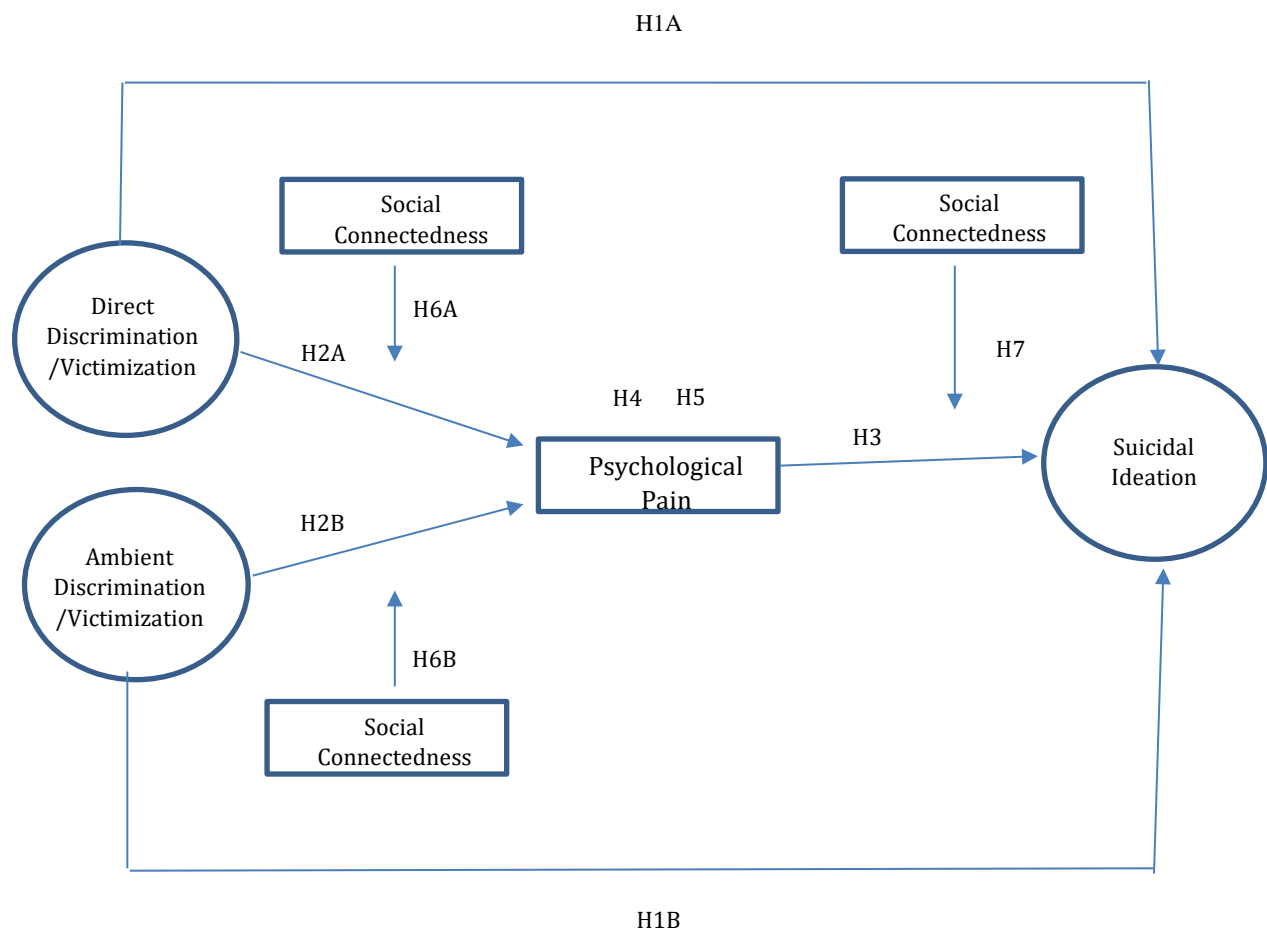


Figure 1. Theoretical Model

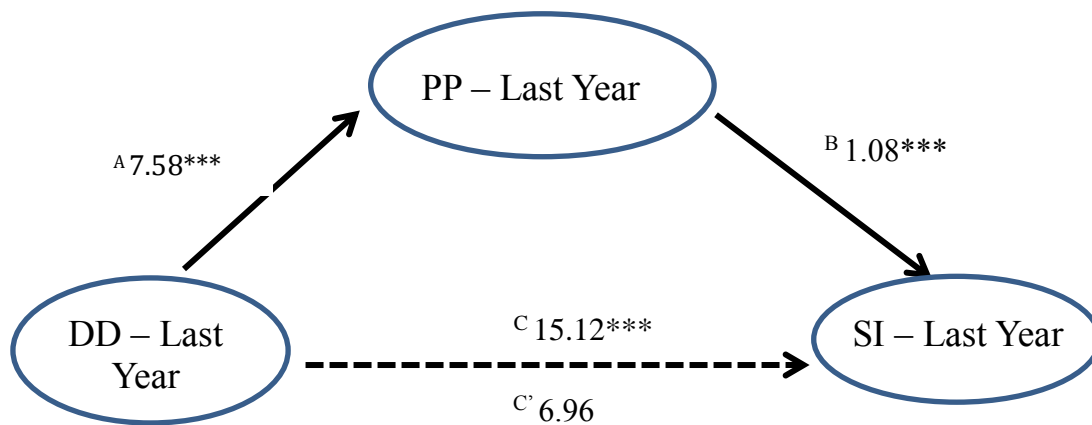


Figure 2: Last Year Direct Discrimination (DD) Psychological Pain (PP) Mediation Model. This figure illustrates significance levels and beta coefficients for the A, B, C, and C' paths of this model; *p < .05, **p < .01, ***p < .001

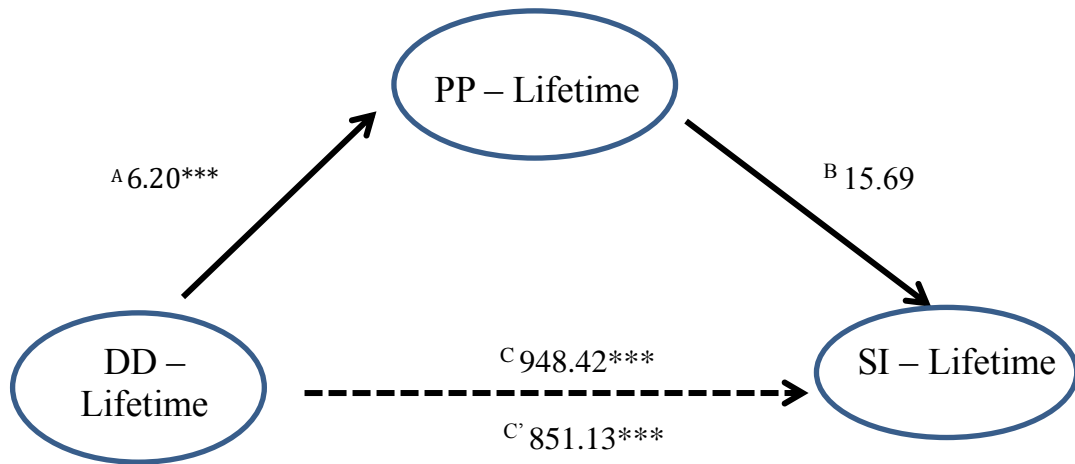


Figure 3: *Lifetime Direct Discrimination (DD) Psychological Pain (PP) Mediation Model*. This figure illustrates significance levels and beta coefficients for the A, B, C, and C' paths of this model; *p < .05, **p < .01, ***p < .001

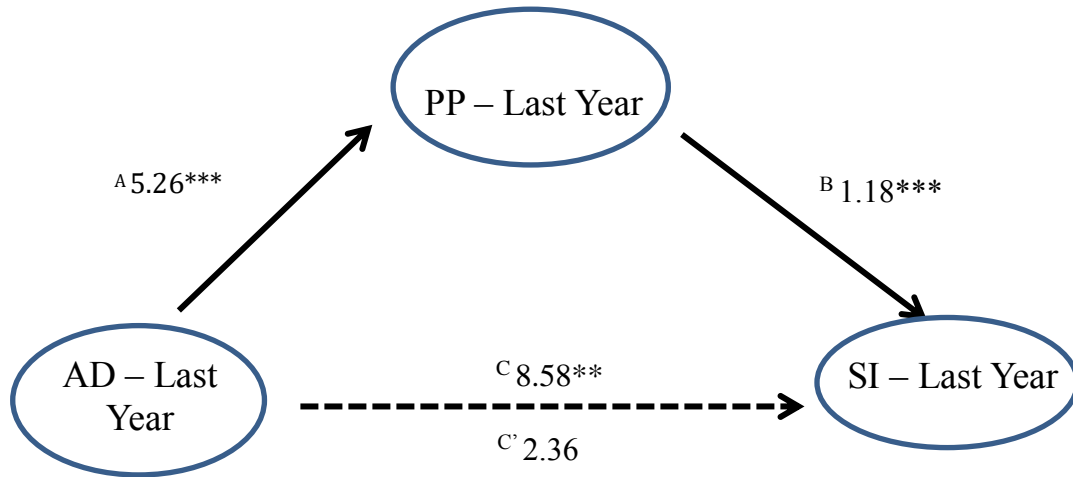


Figure 4: Last Year Ambient Discrimination (AD) Psychological Pain (PP) Mediation Model. This figure illustrates significance levels and beta coefficients for the A, B, C, and C' paths of this model;

* $p < .05$, ** $p < .01$, *** $p < .001$

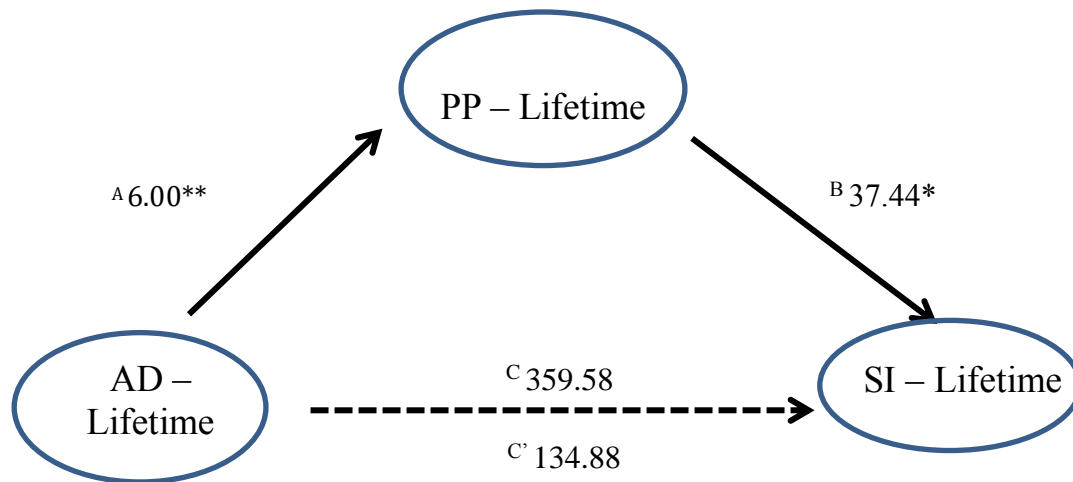


Figure 5: Lifetime Ambient Discrimination (AD) Psychological Pain (PP) Mediation Model. This figure illustrates significance levels and beta coefficients for the A, B, C, and C' paths of this model; * $p < .05$, ** $p < .01$, *** $p < .001$

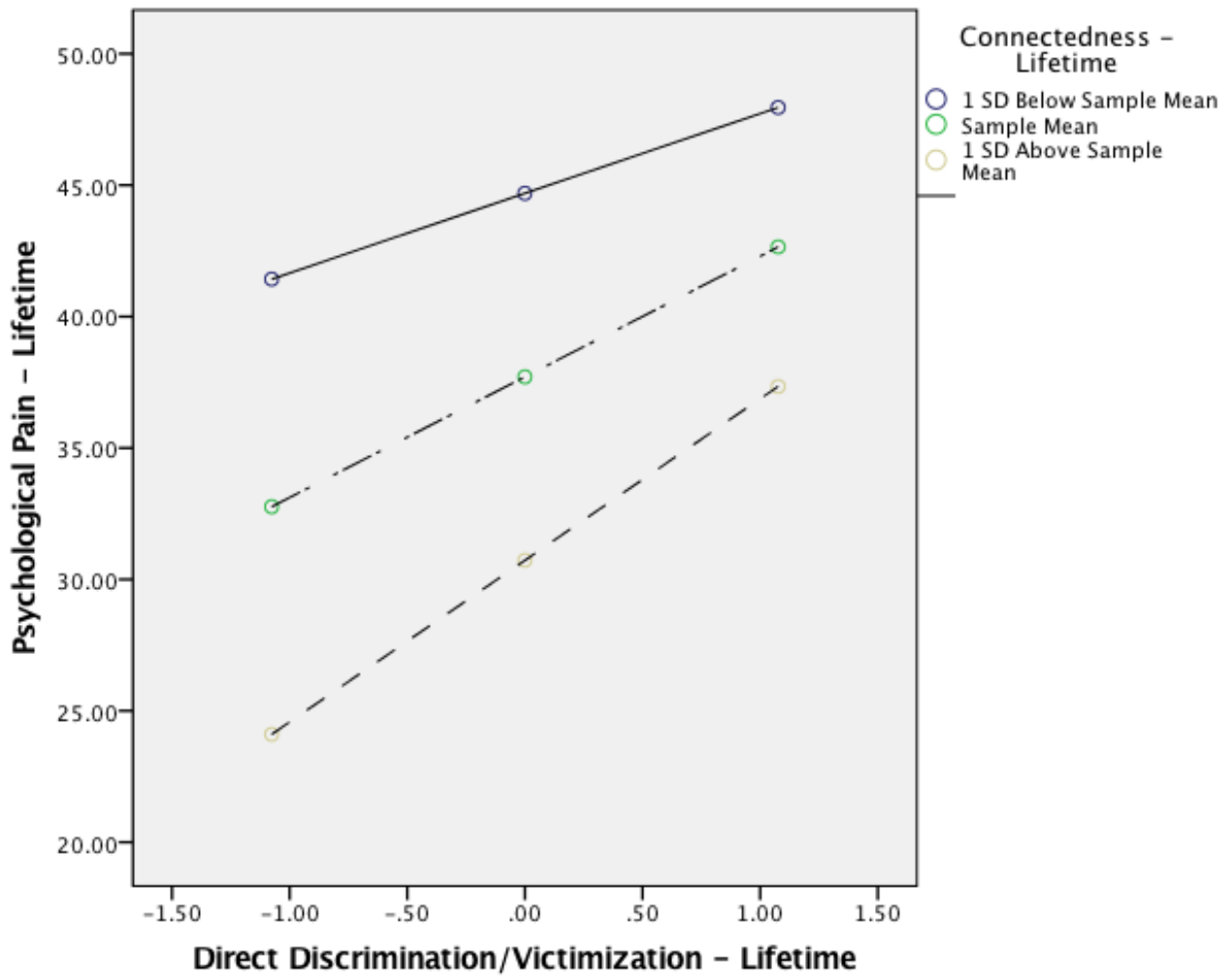


Figure 6: Simple slopes graph of the moderating effect of lifetime connectedness in the relationship between lifetime direct discrimination/victimization and lifetime psychological pain

Note: .00 represents the mean on lifetime direct discrimination/victimization (M=2.18, SD=1.06); negative numbers indicate SDs below the mean while positive numbers indicate SDs above the mean

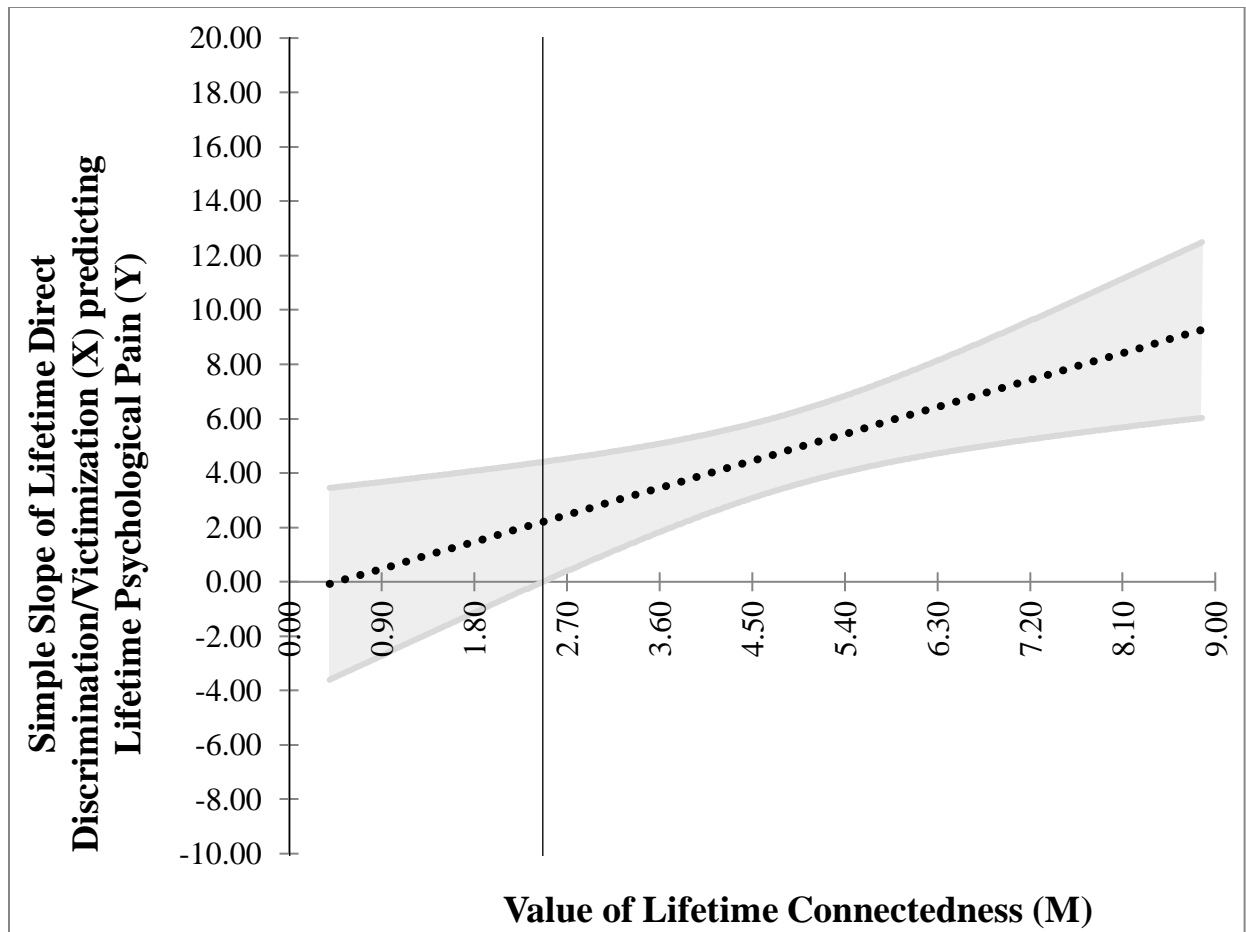


Figure 7: Johnson-Neyman plot of the moderating effect of lifetime connectedness in the relationship between lifetime direct discrimination/victimization and lifetime psychological pain

REFERENCES

- Andrinopoulos, K., Hembling, J., Guardado, M. E., de Maria Hernández, F., Nieto, A. I., & Melendez, G. (2015). Evidence of the negative effect of sexual minority stigma on HIV testing among MSM and transgender women in San Salvador, El Salvador. *AIDS and Behavior*, 19(1), 60-71.
- Arango, A., Opperman, K. J., Gipson, P. Y., & King, C. A. (2016). Suicidal ideation and suicide attempts among youth who report bully victimization, bully perpetration and/or low social connectedness. *Journal of adolescence*, 51, 19-29.
- Arnold, H. J., & Feldman, D. C. (1981). Social desirability response bias in self-report choice situations. *Academy of Management Journal*, 24(2), 377-385.
- Armstrong, S., & Oomen-Early, J. (2009). Social connectedness, self-esteem, and depression symptomatology among collegiate athletes versus nonathletes. *Journal of American College Health*, 57(5), 521-526.
- Aubrey, J. S. (2007). The impact of sexually objectifying media exposure on negative body emotions and sexual self-perceptions: Investigating the mediating role of body self-consciousness. *Mass Communication & Society*, 10(1), 1-23.
- Baddeley, A. D., & Hitch, G. (1993). The recency effect: Implicit learning with explicit retrieval?. *Memory & Cognition*, 21(2), 146-155.
- Baldry, A. C. & Winkel, F. W. (2003). Direct and vicarious victimization at school and at home as risk factors for suicidal cognition among Italian adolescents. *Journal of Adolescence*, 26, 703 – 716
- Balsam, K. F., Beadnell, B., & Molina, Y. (2013). The Daily Heterosexist Experiences Questionnaire: Measuring minority stress among lesbian, gay, bisexual, and transgender adults. *Measurement and Evaluation in Counseling and Development*, 46(1), 3-25
- Balsam, K. F., Rothblum, E. D., & Beauchaine, T. P. (2005). Victimization over the life span: a comparison of lesbian, gay, bisexual, and heterosexual siblings. *Journal of consulting and clinical psychology*, 73(3), 477.
- Baams, L., Grossman, A. H., & Russell, S. T. (2015). Minority stress and mechanisms of risk for depression and suicidal ideation among lesbian, gay, and bisexual youth. *Developmental Psychology*, 51(5), 688.
- Baumeister, R. F. (1990). Suicide as escape from self. *Psychological review*, 97(1), 90.

- Baquet, C. R., Commiskey, P., Mullins, C. D., & Mishra, S. I. (2006). Recruitment and participation in clinical trials: socio-demographic, rural/urban, and health care access predictors. *Cancer detection and prevention, 30*(1), 24-33.
- Berscheid, E. (1985). Compatibility, interdependence, and emotion. In *Compatible and incompatible relationships* (pp. 143-161). Springer, New York, NY.
- Bertrand, M., & Duflo, E. (2017). Field experiments on discrimination. *Handbook of Economic Field Experiments, 1*, 309-393.
- Bond L, Carlin JB, Thomas L, Rubin K, Klein RG. 2001. Does bullying cause emotional problems? A prospective study of young teenagers. *Br Med J 323*:480–484
- Bonanno, R. A., & Hymel, S. (2010). Beyond hurt feelings: Investigating why some victims of bullying are at greater risk for suicidal ideation. *Merrill-Palmer Quarterly (1982-)*, 420-440.
- Bond, F. W., & Bunce, D. (2000). Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of Occupational Health Psychology, 5*, 156–163.
- Bostwick, W. B., Boyd, C. J., Hughes, T. L., & McCabe, S. E. (2010). Dimensions of sexual orientation and the prevalence of mood and anxiety disorders in the United States. *American journal of public health, 100*(3), 468-475.
- Bostwick, W. B., Boyd, C. J., Hughes, T. L., West, B. T., & McCabe, S. E. (2014). Discrimination and mental health among lesbian, gay, and bisexual adults in the United States. *American Journal of Orthopsychiatry, 84*(1), 35.
- Bradford, J., Reisner, S. L., Honnold, J. A., & Xavier, J. (2013). Experiences of transgender-related discrimination and implications for health: results from the Virginia Transgender Health Initiative Study. *American Journal of Public Health, 103*(10), 1820-1829.
- Broman, C.L., Mavadatt, R., Hsu, S.Y. (2000). The experience and consequence of perceived racial discrimination: A study of African Americans. *Journal of Black Psychology, 26* (2), 165-18
- Burgess, D., Lee, R., Tran, A., & Van Ryn, M. (2008). Effects of perceived discrimination on mental health and mental health services utilization among gay, lesbian, bisexual and transgender persons. *Journal of LGBT health research, 3*(4), 1-14.
- Campos, R. C., & Holden, R. R. (2015). Testing models relating rejection, depression, interpersonal needs, and psychache to suicide risk in nonclinical individuals. *Journal of clinical psychology, 71*(10), 994-1003.

- Campos, R. C., Gomes, M., Holden, R. R., Piteira, M., & Rainha, A. (2017). Does psychache mediate the relationship between general distress and suicide ideation?. *Death studies, 41*(4), 241-245.
- Cacioppo, J. T., Fowler, J. H., & Christakis, N. A. (2009). Alone in the crowd: The structure and spread of loneliness in a large social network. *Journal of personality and social psychology, 97*(6), 977.
- Christiansen, E. J., & Evans, W. P. (2005). Adolescent victimization: Testing models of resiliency by gender. *The Journal of Early Adolescence, 25*(3), 298-316.
- Clements-Nolle, K., Marx, R., & Katz, M. (2006). Attempted suicide among transgender persons: The influence of gender-based discrimination and victimization. *Journal of homosexuality, 51*(3), 53-69.
- Conron, K. J., Mimiaga, M. J., & Landers, S. J. (2010). A population-based study of sexual orientation identity and gender differences in adult health. *American journal of public health, 100*(10), 1953-1960.
- Crain-Gully Sr, D. I. (2010). *Psychache and coming out lesbian, gay, bisexual, transgender, and questioning (LGBTQ) adults at risk of suicidal ideation and suicide attempts: A mixed-methods design* (Doctoral dissertation, Capella University).
- Craney, R. S., Watson, L. B., Brownfield, J., & Flores, M. J. (2018). Bisexual women's discriminatory experiences and psychological distress: Exploring the roles of coping and LGBTQ community connectedness. *Psychology of Sexual Orientation and Gender Diversity, 5*(3), 324
- D'Augelli, A. R. (1996). Lesbian, gay and bisexual development during adolescence and young adulthood. In R. P. Cahab & T. S. Stein (Eds.), *Textbook of homosexuality and mental health* (pp. 267-288). Washington, DC: American Psychiatric Press.
- De Graaf, R., Sandfort, T. G., & ten Have, M. (2006). Suicidality and sexual orientation: Differences between men and women in a general population-based sample from the Netherlands. *Archives of sexual behavior, 35*(3), 253-262.
- DeLisle, M. M., & Holden, R. R. (2009). Differentiating between depression, hopelessness, and psychache in university undergraduates. *Measurement and Evaluation in Counseling and Development, 42*(1), 46-63.
- Detrie, P. M., & Lease, S. H. (2007). The relation of social support, connectedness, and collective self-esteem to the psychological well-being of lesbian, gay, and bisexual youth. *Journal of Homosexuality, 53*(4), 173-199

- Dibble, J. L., Levine, T. R., & Park, H. S. (2012). The Unidimensional Relationship Closeness Scale (URCS): Reliability and validity evidence for a new measure of relationship closeness. *Psychological assessment*, 24(3), 565.
- DiFulvio, G. T. (2011). Sexual minority youth, social connection and resilience: From personal struggle to collective identity. *Social Science & Medicine*, 72(10), 1611-1617.
- Dilley, J. A., Simmons, K. W., Boysun, M. J., Pizacani, B. A., & Stark, M. J. (2010). Demonstrating the importance and feasibility of including sexual orientation in public health surveys: health disparities in the Pacific Northwest. *American journal of public health*, 100(3), 460-467.
- Dirkes, J., Hughes, T., Ramirez-Valles, J., Johnson, T., & Bostwick, W. (2016). Sexual identity development: relationship with lifetime suicidal ideation in sexual minority women. *Journal of clinical nursing*, 25(23-24), 3545-3556.
- Duong, J., & Bradshaw, C. (2014). Associations between bullying and engaging in aggressive and suicidal behaviors among sexual minority youth: The moderating role of connectedness. *Journal of school health*, 84(10), 636-645.
- Duncan, L. E. (1999). Motivation for collective action: Group consciousness as mediator of personality, life experiences, and women's rights activism. *Political Psychology*, 20(3), 611-635.
- Durkheim, E. (1951). *Suicide: a study in sociology [1897]. Translated by JA Spaulding and G. Simpson (Glencoe, Illinois: The Free Press, 1951).*
- Eisenberg, M. E., & Resnick, M. D. (2006). Suicidality among gay, lesbian and bisexual youth: The role of protective factors. *Journal of adolescent health*, 39(5), 662-668.
- Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, 302(5643), 290-292.
- Eisenberger, N. I., & Lieberman, M. D. (2004). Why rejection hurts: a common neural alarm system for physical and social pain. *Trends in cognitive sciences*, 8(7), 294-300.
- Eitle, D., & Turner, R. J. (2002). Exposure to community violence and young adult crime: The effects of witnessing violence, traumatic victimization, and other stressful life events. *Journal of Research in Crime and Delinquency*, 39(2), 214-237.
- Fässberg, M. M., Orden, K. A. V., Duberstein, P., Erlangsen, A., Lapierre, S., Bodner, E., ... & Waern, M. (2012). A systematic review of social factors and suicidal behavior in older adulthood. *International journal of environmental research and public health*, 9(3), 722-745.

- Faulkner, A. H., & Cranston, K. (1998). Correlates of same-sex sexual behavior in a random sample of Massachusetts high school students. *American journal of public health, 88*(2), 262-266.
- Feinstein, B. A., Goldfried, M. R., & Davila, J. (2012). The relationship between experiences of discrimination and mental health among lesbians and gay men: An examination of internalized homonegativity and rejection sensitivity as potential mechanisms. *Journal of consulting and clinical psychology, 80*(5), 917.
- Feldner, M. T., Zvolensky, M. J., Eifert, G. H., & Spira, A. P. (2003). Emotional avoidance: An experimental test of individual differences and response suppression using biological challenge. *Behaviour Research and Therapy, 41*, 403–411.
- Fergusson, D. M., Horwood, L. J., & Beautrais, A. L. (1999). Is sexual orientation related to mental health problems and suicidality in young people?. *Archives of general psychiatry, 56*(10), 876-880.
- Fitzpatrick, K. M., & Boldizar, J. P. (1993). The prevalence and consequences of exposure to violence among African-American youth. *Journal of the American Academy of Child & Adolescent Psychiatry, 32*(2), 424-430.
- Fredriksen-Goldsen, K. I., Kim, H. J., Shiu, C., Goldsen, J., & Emler, C. A. (2014). Successful aging among LGBT older adults: Physical and mental health-related quality of life by age group. *The Gerontologist, 55*(1), 154-168.
- Friedman, M. S., Koeske, G. F., Silvestre, A. J., Korr, W. S., & Sites, E. W. (2006). The impact of gender-role nonconforming behavior, bullying, and social support on suicidality among gay male youth. *Journal of Adolescent Health, 38*(5), 621-623.
- Gates, G. (2011, April). *How many people are lesbian, gay, bisexual, and transgender?* Retrieved from <https://williamsinstitute.law.ucla.edu/wp-content/uploads/Gates-How-Many-People-LGBT-Apr-2011.pdf>
- Gilman SE, Cochran SD, Mays VM, Hughes M, Ostrow D, Kessler RC: Risk of psychiatric disorders among individuals reporting same-sex sexual partners in the National Comorbidity Survey. *American Journal of Public Health. 2001, 91* (6): 933-939.
- Glomb, T. M., Richman, W. L., Hulin, C. L., Drasgow, F., Schneider, K. T., & Fitzgerald, L. F. (1997). Ambient sexual harassment: An integrated model of antecedents and consequences. *Organizational Behavior and Human Decision Processes, 71*(3), 309-328.
- Gündel, H., O'Connor, M. F., Littrell, L., Fort, C., & Lane, R. D. (2003). Functional neuroanatomy of grief: an FMRI study. *American Journal of Psychiatry, 160*(11), 1946-1953.

- Hall-Lande, J. A., Eisenberg, M. E., Christenson, S. L., & Neumark-Sztainer, D. (2007). Social isolation, psychological health, and protective factors in adolescence. *Adolescence*, *42*(166), 265.
- Harris, K. M. (2013). Sexuality and suicidality: matched-pairs analyses reveal unique characteristics in non-heterosexual suicidal behaviors. *Archives of sexual behavior*, *42*(5), 729-737.
- He, A. S., Fulginiti, A., & Finno-Velasquez, M. (2015). Connectedness and suicidal ideation among adolescents involved with child welfare: A national survey. *Child abuse & neglect*, *42*, 54-62.
- Heisel, M. J., & Flett, G. L. (2004). Purpose in life, satisfaction with life, and suicide ideation in a clinical sample. *Journal of Psychopathology and Behavioral Assessment*, *26*(2), 127-135.
- Herek, G. M., Gillis, J. R., & Cogan, J. C. (1999). Psychological sequelae of hate-crime victimization among lesbian, gay, and bisexual adults. *Journal of Consulting Clinical Psychology*, *67*, 945-951.
- Herrell, R., Goldberg, J., True, W. R., Ramakrishnan, V., Lyons, M., Eisen, S., & Tsuang, M. T. (1999). Sexual orientation and suicidality: a co-twin control study in adult men. *Archives of General Psychiatry*, *56*(10), 867-874.
- Hill, R. M., Rooney, E. E., Mooney, M. A., & Kaplow, J. B. (2017). Links Between Social Support, Thwarted Belongingness, and Suicide Ideation among Lesbian, Gay, and Bisexual College Students. *Journal of Family Strengths*, *17*(2), 6.
- Hottes, T. S., Bogaert, L., Rhodes, A. E., Brennan, D. J., & Gesink, D. (2016). Lifetime prevalence of suicide attempts among sexual minority adults by study sampling strategies: a systematic review and meta-analysis. *American journal of public health*, *106*(5), e1-e12.
- Hughes, T., McCabe, S. E., Wilnsack, S. C., West, B. T., & Boyd, C. J. (2010). Victimization and substance use disorders in a national sample of heterosexual and sexual minority women and men. *Addiction*, *105*(12), 2130-2140.
- Irwin, J. A., Coleman, J. D., Fisher, C. M., & Marasco, V. M. (2014). Correlates of suicide ideation among LGBT Nebraskans. *Journal of homosexuality*, *61*(8), 1172-1191.
- James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). The Report of the 2015 U.S. Transgender Survey. Washington, DC: National Center for Transgender Equality.
- Jankoski, J. A. (2010). Is vicarious trauma the culprit? A study of child welfare professionals. *Child welfare*, *89*(6), 105.

- Javdani, S., Abdul-Adil, J., Suarez, L., Nichols, S. R., & Farmer, A. D. (2014). Gender differences in the effects of community violence on mental health outcomes in a sample of low-income youth receiving psychiatric care. *American journal of community psychology, 53*(3-4), 235-248
- John, J.A. and N.R. Draper (1980). An alternative family of transformations. *Applied Statistics 29*, 190-197.
- Joiner Jr, T. E., Van Orden, K. A., Witte, T. K., Selby, E. A., Ribeiro, J. D., Lewis, R., & Rudd, M. D. (2009). Main predictions of the interpersonal–psychological theory of suicidal behavior: Empirical tests in two samples of young adults. *Journal of abnormal psychology, 118*(3), 634.
- Jose, P. E., Ryan, N., & Pryor, J. (2012). Does Social Connectedness Promote a Greater Sense of Well-Being in Adolescence Over Time?. *Journal of Research on Adolescence, 22*(2), 235-251.
- Kaminski, J. W., Puddy, R. W., Hall, D. M., Cashman, S. Y., Crosby, A. E., & Ortega, L. A. (2010). The relative influence of different domains of social connectedness on self-directed violence in adolescence. *Journal of Youth and Adolescence, 39*(5), 460-473.
- Karlsen, S., & Nazroo, J. Y. (2002). Relation between racial discrimination, social class, and health among ethnic minority groups. *American journal of public health, 92*(4), 624-631.
- Katz-Wise, S. L., & Hyde, J. S. (2012). Victimization experiences of lesbian, gay, and bisexual individuals: A meta-analysis. *Journal of sex research, 49*(2-3), 142-167.
- Kawachi, I., & Berkman, L. F. (2001). Social ties and mental health. *Journal of Urban health, 78*(3), 458-467.
- Kessler, R. C., Berglund, P., Borges, G., Nock, M., & Wang, P. (2005). Trends in suicide ideation, plans, gestures, and attempts in the United States, 1900–1992 to 2001–2003. *Journal of the American Medical Association, 293*, 2487–2495
- Khantzian, E. J. (1997). The self-medication hypothesis of substance use disorders: a reconsideration and recent applications. *Harvard review of psychiatry, 4*(5), 231-244.
- King, M., Semlyen, J., Tai, S. S., Killaspy, H., Osborn, D., Popelyuk, D., et al. (2008, August 18). A systematic review of mental disorder, suicide, and deliberate self-harm in lesbian, gay, and bisexual people. *BMC Psychiatry, 8*: 70.
- Kleiman, E. M. (2015). Suicide acceptability as a mechanism of suicide clustering in a nationally representative sample of adolescents. *Comprehensive psychiatry, 59*, 17-20.
- Kleiman, E. M., & Beaver, J. K. (2013). A meaningful life is worth living: Meaning in life as a suicide resiliency factor. *Psychiatry research, 210*(3), 934-939.

- Klonsky, E. D., & May, A. M. (2014). Differentiating suicide attempters from suicide ideators: a critical frontier for suicidology research. *Suicide and life-threatening behavior*, 44(1), 1-5.
- Klonsky, E. D., & May, A. M. (2015). The three-step theory (3ST): A new theory of suicide rooted in the “ideation-to-action” framework. *International Journal of Cognitive Therapy*, 8(2), 114-129.
- Kressin, N. R., Raymond, K. L., & Manze, M. (2008). Perceptions of race/ethnicity-based discrimination: a review of measures and evaluation of their usefulness for the health care setting. *Journal of Health Care for the Poor and Underserved*, 19(3), 697.
- LaBar, K. S. (2007). Beyond fear: Emotional memory mechanisms in the human brain. *Current directions in psychological science*, 16(4), 173-177.
- Leary, M.R. & Springer, C.A. (2001). Behaving Badly: Aversive Behaviors in Interpersonal Relationships. *American Psychological Association*, 151–175.
- Lee, R. M., & Robbins, S. B. (1995). Measuring belongingness: The social connectedness and the social assurance scales. *Journal of counseling psychology*, 42(2), 232.
- Leenaars, A. A. (1996). Suicide: A multidimensional malaise. *Suicide and Life-Threatening Behavior*, 26(3), 221-236.
- Lehavot, K., Simpson, T. L., & Shipherd, J. C. (2016). Factors associated with suicidality among a national sample of transgender veterans. *Suicide and Life-Threatening Behavior*, 46(5), 507-524.
- Li, H., Xie, W., Luo, X., Fu, R., Shi, C., Ying, X., ... & Wang, X. (2014). Clarifying the role of psychological pain in the risks of suicidal ideation and suicidal acts among patients with major depressive episodes. *Suicide and Life-Threatening Behavior*, 44(1), 78-88.
- Lick, David J., Laura E. Durso, and Kerri L. Johnson. "Minority stress and physical health among sexual minorities." *Perspectives on Psychological Science* 8, no. 5 (2013): 521-548.
- Logie, C., James, L., Tharao, W., & Loutfy, M. (2013). Associations between HIV-related stigma, racial discrimination, gender discrimination, and depression among HIV-positive African, Caribbean, and Black women in Ontario, Canada. *AIDS patient care and STDs*, 27(2), 114-122.
- Lombardi EL, Wilchins RA, Priesing D, Malouf D. Gender violence: transgender experiences with violence and discrimination. *J Homosex*. 2001;42(1):89–101.

- Matarazzo, B. B., Barnes, S. M., Pease, J. L., Russell, L. M., Hanson, J. E., Soberay, K. A., & Gutierrez, P. M. (2014). Suicide risk among lesbian, gay, bisexual, and transgender military personnel and veterans: what does the literature tell us?. *Suicide and life-threatening behavior*, *44*(2), 200-217.
- Mathy RM: Suicidality and sexual orientation in five continents: Asia, Australia, Europe, North America, and South America. *International Journal of Sexuality and Gender Studies*. 2002, 7 (2–3): 215-225. 10.1023/A:1015853302054
- Mays, V. M., & Cochran, S. D. (2001). Mental health correlates of perceived discrimination among lesbian, gay, and bisexual adults in the United States. *American journal of public health*, *91*(11), 1869-1876.
- Mays, V. M., & Cochran, S. D. (2001). Mental health correlates of perceived discrimination among lesbian, gay, and bisexual adults in the United States. *American journal of public health*, *91*(11), 1869-1876.
- McBee-Strayer, S. M., & Rogers, J. R. (2002). Lesbian, gay, and bisexual suicidal behavior: Testing a constructivist model. *Suicide and Life-Threatening Behavior*.
- McDaniel, J. S., Purcell, D., & D'Augelli, A. R. (2001). The relationship between sexual orientation and risk for suicide: Research findings and future directions for research and prevention. *Suicide and life-threatening behavior*, *31*(Supplement to Issue 1), 84-105.
- McLaren, S. (2015). Gender, age, and place of residence as moderators of the internalized homophobia-depressive symptoms relation among Australian gay men and lesbians. *Journal of homosexuality*, *62*(4), 463-480.
- Mee, S., Bunney, B. G., Reist, C., Potkin, S. G., & Bunney, W. E. (2006). Psychological pain: a review of evidence. *Journal of Psychiatric Research*, *40*(8), 680-690.
- Mereish, E. H., O'Cleirigh, C., & Bradford, J. B. (2014). Interrelationships between LGBT-based victimization, suicide, and substance use problems in a diverse sample of sexual and gender minorities. *Psychology, health & medicine*, *19*(1), 1-13.
- Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of health and social behavior*, 38-56.
- Meyer, I. H., & Frost, D. M. (2013). Minority stress and the health of sexual minorities. *Handbook of psychology and sexual orientation*, 252-266.
- Meyer, I. H., Oullette, S. C., Haile, R., & McFarlane, T. A. (2011). "We'd be free": Narratives of life without homophobia, racism, or sexism. *Sexuality Research & Social Policy*, *8*(3), 204–214.

- MacDonald, G., & Leary, M. R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological bulletin*, 131(2), 202.
- Miner-Rubino, K., & Cortina, L. M. (2004). Working in a context of hostility toward women: implications for employees' well-being. *Journal of occupational health psychology*, 9(2), 107.
- Modecki, K. L., Minchin, J., Harbaugh, A. G., Guerra, N. G., & Runions, K. C. (2014). Bullying prevalence across contexts: A meta-analysis measuring cyber and traditional bullying. *Journal of Adolescent Health*, 55(5), 602-611.
- Moody, C., & Smith, N. G. (2013). Suicide protective factors among trans adults. *Archives of sexual behavior*, 42(5), 739-752.
- Morrison, T. G., Bishop, C. J., Morrison, M. A., & Parker-Taneo, K. (2016). A psychometric review of measures assessing discrimination against sexual minorities. *Journal of homosexuality*, 63(8), 1086-1126.
- Nadal, K. L., Rivera, D. P., & Corpus, J. H. (2010). Sexual orientation and transgender microaggressions. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 217–240). Hoboken, NJ: Wiley.
- Nadal, K.L., Wong, Y., Griffin, K.E., Davidoff, K., & Shriken, J. (2014). The adverse impact of racial microaggressions on college-students self-esteem. *Journal of College and Student Development*.
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and identity*, 2(3), 223-250
- Neumann, D. A., & Gamble, S. J. (1995). Issues in the professional development of psychotherapists: Countertransference and vicarious traumatization in the new trauma therapist. *Psychotherapy*, 32, 341–347
- Nock, M. K., Borges, G., Bromet, E. J., Alonso, J., Angermeyer, M., Beautrais, A., ... & De Graaf, R. (2008). Cross-national prevalence and risk factors for suicidal ideation, plans and attempts. *The British Journal of Psychiatry*, 192(2), 98-105.
- Nock, M. K., Prinstein, M. J., & Sterba, S. K. (2009). Revealing the form and function of self-injurious thoughts and behaviors: A real-time ecological assessment study among adolescents and young adults. *Journal of abnormal psychology*, 118(4), 816.
- Miranda, R., & Nolen-Hoeksema, S. (2007). Brooding and reflection: Rumination predicts suicidal ideation at 1-year follow-up in a community sample. *Behaviour Research and Therapy*, 45(12), 3088-3095.

- O'hara, R. B., & Kotze, D. J. (2010). Do not log-transform count data. *Methods in Ecology and Evolution*, 1(2), 118-122.
- Orbach, I., Mikulincer, M., Gilboa-Schechtman, E., & Sirota, P. (2003). Mental pain and its relationship to suicidality and life meaning. *Suicide and Life-Threatening Behavior*, 33(3), 231-241.
- Oswald, F. L., Mitchell, G., Blanton, H., Jaccard, J., & Tetlock, P. E. (2013). Predicting ethnic and racial discrimination: A meta-analysis of IAT criterion studies. *Journal of personality and social psychology*, 105(2), 171.
- Oswalt, S. B., & Wyatt, T. J. (2011). Sexual orientation and differences in mental health, stress, and academic performance in a national sample of U.S. college students. *Journal Of Homosexuality*, 58(9), 1255-1280.
- Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological bulletin*, 135(4), 531.
- Paul, J. P., Cantania, J., Pollack, L., Moskowitz, J., Canchola, J., Mills, T., et al. (2002). Suicide attempts among gay and bisexual men: Lifetime prevalence and antecedents. *American Journal of Public Health*, 92, (8), 1338–1345.
- Paul, K. I., & Moser, K. (2009). Unemployment impairs mental health: Meta-analyses. *Journal of Vocational behavior*, 74(3), 264-282.
- Pilkington, N. W., & D'Augelli, A. R. (1995). Victimization of lesbian, gay, and bisexual youth in community settings. *Journal of Community Psychology*, 23(1), 34-56.
- Ploderl, M., & Fartacek, R. (2005). Suicidality and associated risk factors among lesbian, gay, and bisexual compared to heterosexual Austrian adults. *Suicide and Life-Threatening Behavior*, 35(6), 661–670.
- Ploskonka, R. A., & Servaty-Seib, H. L. (2015). Belongingness and suicidal ideation in college students. *Journal of American college health*, 63(2), 81-87.
- Poon, C., Saewyc, E., & Chen, W. (2012). Enacted stigma, problem substance use, and protective factors among Asian sexual minority youth in British Columbia. *Canadian Journal of Community Mental Health*, 30(2), 47-64
- Poorolajal, J., Haghtalab, T., Farhadi, M., & Darvishi, N. (2016). Substance use disorder and risk of suicidal ideation, suicide attempt and suicide death: a meta-analysis. *Journal of Public Health*, 38(3), e282-e291.
- Qin, P., Agerbo, E., & Mortensen, P. B. (2003). Suicide risk in relation to socioeconomic, demographic, psychiatric, and familial factors: a national register-based study of all suicides in Denmark, 1981–1997. *American Journal of Psychiatry*, 160(4), 765–772.

- Reijntjes, A., Kamphuis, J. H., Prinzie, P., & Telch, M. J. (2010). Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child abuse & neglect, 34*(4), 244-252.
- Reist, C., Mee, S., Fujimoto, K., Rajani, V., Bunney, W. E., & Bunney, B. G. (2017). Assessment of psychological pain in suicidal veterans. *PLoS one, 12*(5), e0177974.
- Reitzel, L. R., Smith, N. G., Obasi, E. M., Forney, M., & Leventhal, A. M. (2017). Perceived distress tolerance accounts for the covariance between discrimination experiences and anxiety symptoms among sexual minority adults. *Journal of anxiety disorders, 48*, 22-27.
- Reisner, S. L., Greytak, E. A., Parsons, J. T., & Ybarra, M. L. (2015). Gender minority social stress in adolescence: disparities in adolescent bullying and substance use by gender identity. *The Journal of Sex Research, 52*(3), 243-256.
- Renaud, J., Berlim, M. T., Begolli, M., McGirr, A., & Turecki, G. (2010). Canadian Journal of Psychiatry, 55(1), 29–34.
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J. O., et al. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association, 278*, 823-832.
- Richards, J. M., & Gross, J. J. (2006). Personality and emotional memory: How regulating emotion impairs memory for emotional events. *Journal of Research in Personality, 40*(5), 631-651
- Rigby, K., & Slee, P. (1999). Suicidal ideation among adolescent school children, involvement in bully—victim problems, and perceived social support. *Suicide and life-threatening behavior, 29*(2), 119-130.
- Rivers I, Poteat VP, Noret N, Ashurst N (2009) Observing bullying at school: The mental health implications of witness status. *Sch Psychol Q 24*: 211-223.
- Rivers, I., & Cowie, H. (2006). Bullying and homophobia in UK schools: A perspective on factors affecting resilience and recovery. *Journal of Gay & Lesbian Issues in Education, 3*(4), 11-43.
- Roberts, A. L., Austin, S. B., Corliss, H. L., Vander Morris, A. K., & Koenen, A. C. (2010). Pervasive trauma among US sexual orientation minority adults and risk of posttraumatic stress disorder. *American Journal of Public Health, 100*(12), 2433–2441.
- Rood, B. A., Puckett, J. A., Pantalone, D. W., & Bradford, J. B. (2015). Predictors of suicidal ideation in a statewide sample of transgender individuals. *LGBT health, 2*(3), 270-275.

- Russell, S. T., Ryan, C., Toomey, R. B., Diaz, R. M., & Sanchez, J. (2011). Lesbian, gay, bisexual, and transgender adolescent school victimization: Implications for young adult health and adjustment. *Journal of School Health, 81*(5), 223-230.
- Savin-Williams, R. C. (1994). Verbal and physical abuse as stressors in the lives of lesbian, gay male, and bisexual youths: associations with school problems, running away, substance abuse, prostitution, and suicide. *Journal of consulting and clinical psychology, 62*(2), 261.
- Schauben, L. J., & Frazier, P. A. (1995). Vicarious trauma the effects on female counselors of working with sexual violence survivors. *Psychology of women quarterly, 19*(1), 49-64.
- Shelef, L., Fruchter, E., Hassidim, A., & Zalsman, G. (2015). Emotional regulation of mental pain as moderator of suicidal ideation in military settings. *European psychiatry, 30*(6), 765-769.
- Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological Bulletin, 140*(4), 921.
- Schmidt, C. K., Miles, J. R., & Welsh, A. C. (2011). Perceived discrimination and social support: The influences on career development and college adjustment of LGBT college students. *Journal of Career Development, 38*(4), 293-309.
- Schneidman, E. S. (1993). Suicide as psychache: A clinical approach to self-destructive behavior. *Northvale, NJ: Jason Aronson.*
- Schwartz, D., & Gorman, A. H. (2003). Community violence exposure and children's academic functioning. *Journal of Educational Psychology, 95*(1), 163.
- Seelman, K. L., Woodford, M. R., & Nicolazzo, Z. (2017). Victimization and microaggressions targeting LGBTQ college students: Gender identity as a moderator of psychological distress. *Journal of Ethnic & Cultural Diversity in Social Work, 26*(1-2), 112-125.
- Shaffer, D., Fisher, P., Hicks, P. H., Parides, M., & Gould, M. (1995). Sexual orientation in adolescents who commit suicide. *Suicide and Life Threatening Behavior, 25*(Suppl.), 64-71.
- Shakoor, B. H., & Chalmers, D. (1991). Co-victimization of African-American children who witness violence: effects on cognitive, emotional, and behavioral development. *Journal of the National Medical Association, 83*(3), 233.
- Shilo, G., Antebi, N., & Mor, Z. (2015). Individual and community resilience factors among lesbian, gay, bisexual, queer and questioning youth and adults in Israel. *American journal of community psychology, 55*(1-2), 215-227.

- Shneidman, E. S. (1998). Further reflections on suicide and psychache. *Suicide and Life-Threatening Behavior*, 28(3), 245-250.
- Siedlecki, K. L., Salthouse, T. A., Oishi, S., & Jeswani, S. (2014). The relationship between social support and subjective well-being across age. *Social indicators research*, 117(2), 561-576.
- Silverschanz, P., Cortina, L. M., Konik, J., & Magley, V. J. (2008). Slurs, snubs, and queer jokes: Incidence and impact of heterosexist harassment in academia. *Sex Roles*, 58(3-4), 179-191.
- Silenzio, V. M., Pena, J. B., Duberstein, P. R., Cerel, J., & Knox, K. L. (2007). Sexual orientation and risk factors for suicidal ideation and suicide attempts among adolescents and young adults. *American journal of public health*, 97(11), 2017-2019.
- Skegg K, Nada-Raja S, Dickson N, Paul C, Williams S: Sexual orientation and self-harm in men and women. *American Journal of Psychiatry*. 2003, 160 (3): 541-546. 10.1176/appi.ajp.160.3.541.
- Skerrett, D. M., Kølves, K., & De Leo, D. (2014). Suicides among lesbian, gay, bisexual, and transgender populations in Australia: An analysis of the Queensland Suicide Register. *Asia-Pacific Psychiatry*, 6(4), 440-446.
- Smith, E. R. (1993). Social identity and social emotions: Toward new conceptualizations of prejudice. In *Affect, cognition and stereotyping* (pp. 297-315).
- Stone, D. M., Luo, F., Lippy, C., & McIntosh, W. L. (2015). The role of social connectedness and sexual orientation in the prevention of youth suicide ideation and attempts among sexually active adolescents. *Suicide and life-threatening behavior*, 45(4), 415-430.
- Stone AA, Broderick JE, Kaell AT, et al. (2000) Does the peak-end phenomenon observed in laboratory pain studies apply to real world pain in rheumatoid arthritis? *Journal of Pain*, 1:212-17
- Stone, D. M., Luo, F., Ouyang, L., Lippy, C., Hertz, M. F., & Crosby, A. E. (2014). Sexual orientation and suicide ideation, lans, attempts, and medically serious attempts: Evidence from local youth risk behavior surveys, 2001–2009. *American journal of public health*, 104(2), 262-271.
- Storch, E. A., & Masia-Warner, C. (2004). The relationship of peer victimization to social anxiety and loneliness in adolescent females. *Journal of adolescence*, 27(3), 351-362.
- Stull, D. E., Leidy, N. K., Parasuraman, B., & Chassany, O. (2009). Optimal recall periods for patient-reported outcomes: challenges and potential solutions. *Current medical research and opinion*, 25(4), 929-942.

- Sudak, H., Maxim, K., & Carpenter, M. (2008). Suicide and stigma: a review of the literature and personal reflections. *Academic Psychiatry, 32*(2), 136-142.
- Swank, E., Frost, D. M., & Fahs, B. (2012). Rural location and exposure to minority stress among sexual minorities in the United States. *Psychology & Sexuality, 3*(3), 226-243.
- Swim J, Johnson K, Pearson N. Daily experiences with heterosexism: Relations between heterosexist hassles and psychological well-being. *Journal of Social and Clinical Psychology. 2009; 28:597– 629.*
- Szymanski, D. M. (2009). Examining potential moderators of the link between heterosexist events and gay and bisexual men's psychological distress. *Journal of Counseling Psychology, 56*(1), 142
- Taliaferro, L. A., Gloppen, K. M., Muehlenkamp, J. J., & Eisenberg, M. E. (2018). Depression and suicidality among bisexual youth: A nationally representative sample. *Journal of LGBT Youth, 15*(1), 16-31.
- Testa, R. J., Michaels, M. S., Bliss, W., Rogers, M. L., Balsam, K. F., & Joiner, T. (2017). Suicidal ideation in transgender people: Gender minority stress and interpersonal theory factors. *Journal of abnormal psychology, 126*(1), 125.
- Tobler, A.L., Maldonado-Molina, M.M., Stara, S.A., O'Mara, R.J., Livingston, M.D., & Komro, K.A. (2013). Perceived racial/ethnic discrimination, problem behaviors, and mental health among minority urban youth. *Ethnicity & Health, 18*(4), 337-349.
- Toomey, R. B., & Russell, S. T. (2016). The role of sexual orientation in school-based victimization: A meta-analysis. *Youth & society, 48*(2), 176-201.
- Toomey, R. B., McGuire, J. K., & Russell, S. T. (2012). Heteronormativity, school climates, and perceived safety for gender nonconforming peers. *Journal of adolescence, 35*(1), 187-196
- Tharp-Taylor, S., Haviland, A., & D'Amico, E. J. (2009). Victimization from mental and physical bullying and substance use in early adolescence. *Addictive behaviors, 34*(6-7), 561-567.
- Troister, T., & Holden, R. R. (2013). Factorial differentiation among depression, hopelessness, and psychache in statistically predicting suicidality. *Measurement and evaluation in counseling and development, 46*(1), 50-63.
- Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: a review with emphasis on underlying mechanisms and implications for health. *Psychological bulletin, 119*(3), 488.
- Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner Jr, T. E. (2010). The interpersonal theory of suicide. *Psychological review, 117*(2), 575.

- Verrocchio, M. C., Carrozzino, D., Marchetti, D., Andreasson, K., Fulcheri, M., & Bech, P. (2016). Mental pain and suicide: a systematic review of the literature. *Frontiers in psychiatry*, 7, 108.
- Virupaksha, H. G., Muralidhar, D., & Ramakrishna, J. (2016). Suicide and suicidal behavior among transgender persons. *Indian journal of psychological medicine*, 38(6), 505.
- Wei, M., Wang, K. T., Heppner, P. P., & Du, Y. (2012). Ethnic and mainstream social connectedness, perceived racial discrimination, and posttraumatic stress symptoms. *Journal of Counseling Psychology*, 59(3), 486.
- Wilcox R.R. (1998). How many discoveries have been lost by ignoring modern statistical methods? *American Psychologist*, 5, 300–314.
- Williams, D. R., Mohammed, S. A., Leavell, J., & Collins, C. (2010). Race, socioeconomic status, and health: complexities, ongoing challenges, and research opportunities. *Annals of the New York Academy of Sciences*, 1186(1), 69-101.
- Williams, K. L., & Galliher, R. V. (2006). Predicting depression and self-esteem from social connectedness, support, and competence. *Journal of Social and Clinical Psychology*, 25(8), 855-874.
- Williams, K. R., & Guerra, N. G. (2007). Prevalence and predictors of internet bullying. *Journal of adolescent health*, 41(6), S14-S21.
- Woodford, M. R., Krentzman, A., & Gattis, M. (2012). Alcohol and drug use among sexual minority college students and their heterosexual counterparts: The effects of experiencing and witnessing incivility and hostility on campus. *Substance Abuse and Rehabilitation*, 3(1), 11–23.
- Woodward, E. N., Wingate, L., Gray, T. W., & Pantalone, D. W. (2014). Evaluating thwarted belongingness and perceived burdensomeness as predictors of suicidal ideation in sexual minority adults. *Psychology of Sexual Orientation and Gender Diversity*, 1(3), 234.
- You, S., Van Orden, K. A., & Conner, K. R. (2011). Social connections and suicidal thoughts and behavior. *Psychology of Addictive Behaviors*, 25(1), 180.
- You, Z., Song, J., Wu, C., Qin, P., & Zhou, Z. (2014). Effects of life satisfaction and psychache on risk for suicidal behaviour: a cross-sectional study based on data from Chinese undergraduates. *BMJ open*, 4(3), e004096.
- Yur'yev, A., Värnik, P., Sisask, M., Leppik, L., Lumiste, K., & Värnik, A. (2013). Some aspects of social exclusion: Do they influence suicide mortality? *International Journal of Social Psychiatry*, 59(3), 232-238.

Zakalik, R. A., & Wei, M. (2006). Adult attachment, perceived discrimination based on sexual orientation, and depression in gay males: Examining the mediation and moderation effects. *Journal of Counseling Psychology*, 53(3), 302.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, 52(1), 30-41.

Appendix A

Hello,

My name is Amanda Peterson and I am a clinical psychology doctoral student at the University of South Florida. I work under the direction of Dr. Marc Karver, who has been working on suicide prevention in Florida for the last decade and a half. During this time, he and others of his colleagues in Florida have partnered with a number of organizations that have worked with LGBTQ young adults.

I am contacting you/your organization to inquire about the possibility of collaborating on a research project that has the potential to benefit the LGBTQ population.

The project I am referring to is my master's thesis and I am trying to gain further understanding on the effects of discrimination and victimization, events which are extensively documented to occur in the lives of LGBTQ-identified individuals. There is some evidence to suggest these experiences have a number of adverse consequences. It is a particular concern that discrimination and victimization may be linked to suicide risk in this population. My thesis is examining how discrimination and victimization impact suicide-related outcomes for LGBTQ-identified individuals. As you may or may not know, being LGBTQ puts one at a higher risk of dying by suicide compared to the general population. The research field as a whole doesn't know a whole lot about why this connection may exist, so addressing this lack of knowledge could help provide the rationale for funding for LGBTQ suicide prevention.

If you think your organization members would potentially be interested in participating in the study, please email me back and I can give you further details either by email or by phone. In short, I just ask that you distribute a link to my survey to your members through Twitter, Facebook, email, etc. Thank you so much for your time, and I hope to hear back from you soon!

- Amanda

Appendix B



RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX (813) 974-7091

March 20, 2018

Amanda Peterson
Psychology
Tampa, FL 33612

RE: **Exempt Certification**

IRB#: Pro00034467

Title: Discrimination, Victimization, and Suicidality in the LGBTQ Population

Dear Ms. Peterson:

On 3/20/2018, the Institutional Review Board (IRB) determined that your research meets criteria for exemption from the federal regulations as outlined by 45CFR46.101(b):

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF HRPP policies and procedures.

Please note, as per USF HRPP Policy, once the Exempt determination is made, the application is closed in ARC. Any proposed or anticipated changes to the study design that was previously declared exempt from IRB review must be submitted to the IRB as a new study prior to initiation of the change. However, administrative changes, including changes in research personnel, do not warrant an amendment or new application.

Given the determination of exemption, this application is being closed in ARC. This does not limit your ability to conduct your research project.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have

any questions regarding this matter, please call 813-974-5638.

Sincerely,



John Schinka, Ph.D., Chairperson
USF Institutional Review Board