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SEXUAL ORIENTATION MICROAGGRESSIONS AND PSYCHOLOGICAL

WELL-BEING: A MEDIATIONAL MODEL

by

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A DISSERTATION

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## ABSTRACT

Prior research has indicated a strong connection between the experience of perceived discrimination and negative mental health outcomes. Sexual minority individuals experience higher rates of psychological distress compared to their heterosexual counterparts and this increased risk has been attributed to stigma-related stress. The psychological mediation framework proposed by Hatzenbuehler (2009) suggests that there are mediators of the relationship between stigma-related stress and mental health outcomes. This study investigated the mediating roles of expectations of rejection and internalized heterosexism in the relationship between the experience of subtle perceived discrimination (sexual orientation microaggressions) and psychological well-being. The model was tested among 233 self-identified sexual minority adults in the United States, with an average age of 42.3 ( $SD=15.83$ ). The majority of participants were female (48.5%), Caucasian (85%), and exclusively gay or lesbian (51.4%). Results indicated that expectations of rejection and internalized heterosexism mediated the relationship between the experience of microaggressions and psychological well-being. The variables in the model accounted for almost one-third of the amount of variance in psychological well-being scores. Six percent of the variance in internalized heterosexism and 56% of the variance in expectations of rejection were explained by microaggressions. These results may help researchers and therapists understand the complex relationship between experiences of discrimination and mental health outcomes. Counseling implications and future research are discussed.

## **DEDICATION**

This dissertation is dedicated to my children, Landon Cooper and Hadley Olivia. They were with me throughout this journey in many ways. Whether in utero or coming to research and advising meetings on campus, they motivated me to continue on this journey. I hope this dissertation inspires them to aim for the stars.

Most of all, my investment of myself into the topic of discrimination experienced by sexual minority individuals is the result of two incredible relationships in my life - my mom and my Uncle Eric. My mom has served as an incredible mentor and example of how to live life with intention. My Uncle Eric has encouraged me from a young age and has always supported my dreams. These two individuals are remarkable people.

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of the steps on this remarkable journey. She is an incredible example of what it is to be a feminist. I will forever be grateful to her. Her belief in my abilities and gifts helped me believe that this was possible. My husband and life partner offered incredible support in this journey. Though I'm not sure either one of us could fully grasp the stress and commitment and energy a Ph.D. program would require from us, let alone parenting young children together in this process, he was always encouraging and supportive. I value his ability to make me laugh and to try and find ways to help me relax in the process. Thank you!

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# CHAPTER I

## INTRODUCTION

Dating back decades, researchers have explained lesbian, gay and bisexual (LGB) individual's experiences of stress as a consequence of stigmatization (Brooks, 1981; Cass, 1979; DiPlacido, 1998; Meyer, 1995; Sophie, 1987). Stigmatization has been associated with negative psychological outcomes in sexual minority individuals (e.g., Beaber, 2008; Grigoriou, 2011; Frable, Wortman, & Joseph, 1997; Lewis, Derlega, Griffin, & Krowinski, 2003). More recently, the literature has focused on mechanisms that mediate the relationship between stress as a result of stigma and psychological well-being (Hatzenbuehler, 2009). The focus of this study was to investigate three mediators (internalized heterosexism, emotion regulation, and expectations of rejection) within the stigma-stress and psychological well-being relationship, using the psychological mediation framework proposed by Hatzenbuehler (2009).

This chapter briefly reviews the rationale for the study and the overarching themes within the relevant literature. Several constructs will be discussed, followed by a presentation of the hypothesized theory-driven mediation model investigating the perceived experience of sexual orientation microaggressions and psychological well-being.

Throughout this document, the author used the term 'sexual minority' to indicate a group of individuals who do not identify as heterosexual. This term was chosen based upon its ability to include a number of identities that are currently not acknowledged when using certain terms/acronyms such as lesbian, gay, and bisexual or LGB. The term 'sexual minority' encompasses those who may identify as two-spirit, pansexual,

polysexual, queer, and gender-neutral, to name a few. When discussing the relevant literature, the language of the cited author(s) was used to present the literature accurately.

On its most basic level, stigma has been defined as a set of negative and often unfair beliefs that a society or group of people have about something (<http://www.merriam-webster.com/dictionary/stigma>). More intricately, social stigma is the intense disapproval of a person or group based upon a social characteristic that is perceived to differ from the cultural norms of the majority (Major & O'Brien, 2005). Goffman (1963) stated that stigma is a characteristic/attribute that broadly discredits an individual or group, reducing him or her “from a whole and usual person to a tainted, discounted one” (p.3). Further, Crocker, Major, and Steele (1998) stated that stigmatization transpires when a person possesses or is believed to possess “some attribute or characteristic that conveys a social identity that is devalued in a particular social context” (p. 505). These definitions indicate that stigmatized individuals have an attribute that marks them as less than and devalued in the eyes of others. Within this lens, sexual minority individuals are seen as second-class citizens, less important and invisible compared to heterosexuals, and beholding an attribute that devalues them. More specifically, Herek (2007) described sexual minority stigma as the negative regard, inferior status, and relative powerlessness that society renders to any non-heterosexual behavior, identity, relationship, or community.

When discussing sexual minorities' perceived experience of discrimination, the author used the term 'perceived discrimination' to indicate the individual's experience of discrimination. On most occasions, an individual's perception of an event is what constitutes it as a discriminating event. This research investigated the perceived

experience of sexual minorities who experience subtle forms of discrimination identified as microaggressions and the intervening variables that may relate to their psychological well-being. Several other similar terms were used to indicate perceived experiences of discrimination (e.g. stigma-related stressors, distal minority stress processes). These terms have been selected by other researchers and theorists to describe the experiences of discrimination that sexual minority individuals may experience.

Additionally, terms highlighting the outcome variables when sexual minority individuals experience discrimination vary by researcher and theorists. For example, this study investigated psychological well-being and utilized that term when discussing the hypothesized mediation model, whereas other researchers may use terms such as mental health outcomes, psychopathology, psychological distress, depression, or anxiety. Ultimately, the outcome variable is specifying potential impacts experienced by sexual minority individuals as a result of experiencing discrimination.

### **Statement of Problem**

Research has shown that individuals within the sexual minority community experience negative mental health outcomes (e.g., Barber, 2009; Cochran & Mays, 2000; Diaz et al., 200; Fergusson et al., 1999). Compared to heterosexuals, sexual minority individuals suffer from more suicide ideation/attempts (Díaz et al., 2001; Gilman et al., 2001; Herrell et al., 1999; Sandfort, de Graaf, Bijl, & Schnabel, 2001), depression (Díaz et al., 2001; Fergusson et al., 1999; Hatzenbuehler, McLaughlin, & Nolen-Hoeksema, 2008; Herek, Cogan, & Gillis, 2009; Herek, Cogan, Gillis, & Glunt, 1998; Mohr & Daly, 2008; ), anxiety (Díaz et al., 2001; Fergusson et al., 1999; Gilman et al., 2001; Hatzenbuehler et al., 2008; Herek et al., 1998; Sandfort et al., 2001), and substance abuse



and/or dependence (Cochran, Keenen, Schober, & Mays, 2000; Fergusson, et al., 1999; Gilman et al., 2001).

Even with advances in understanding the relationships of stigma-related stressors with psychological outcomes (Meyer, 2003; Williams, Neighbors, & Jackson, 2003), only a few researchers have addressed the psychological mechanisms (mediators) connecting experiences of discrimination to mental health problems (e.g. Feinstein, Goldfried, & Davila, 2012; Hatzenbuehler et al., 2008; Velez, Moradi, & Brewster, 2013). Hatzenbuehler (2009) described general psychological processes and group-specific processes as particular mediating variables associated with the discrimination and psychological well-being relationships in his mediation framework. Based upon the model proposed by Hatzenbuehler, this research study examined internalized heterosexism, expectations of rejection, and emotion regulation as mediating variables between stigma-related experiences identified as microaggressions (Sue et al., 2007) and psychological well-being. Support for and evidence of these mediators will be provided through an in-depth analysis in Chapter II and will only be briefly touched upon in Chapter I.

### **Theory Driven Mediation Model**

Researchers and theorists have explained the higher incidence of mental health problems among sexual minority individuals as a result of experiencing stigma, prejudice, and discrimination; these factors create a taxing environment that can lead to mental health problems in people who belong to marginalized groups (DiPlacido, 1998; Friedman, 1999; Hatzenbuehler, 2009; Herek, 2000, 2004; Herek et al., 2009; Meyer, 2003; Mohr & Daly, 2008; Otis & Skinner, 1996). Meyer's (2003) Minority Stress Model

(Appendix A) suggests that the higher occurrence of mental health problems is caused by an excess in societal stressors related to stigma and prejudice. According to the minority stress model, stigma, prejudice, and discrimination create an antagonistic and stressful social environment that leads to mental health problems. Hatzenbuehler's (2009) psychological mediation framework (Appendix B) also postulates that sexual minorities meet increased stress exposure as a result of prejudice. Hatzenbuehler (2009) further contends, however, that the relationship between stigma-related stress and psychopathology is mediated by emotional modulation, social and interpersonal problems, and cognitive processes. As a result of the increased stigma experienced by sexual minorities, these processes operate at a higher level, thus increasing the risk for psychological distress. To explore the experience of sexual minority microaggressions within Hatzenbuehler's model, multiple mediators including internalized heterosexism, expectations of rejection, and emotion regulation, were identified.

### **Microaggressions**

Sue et al. (2007) defined microaggressions as the "brief and commonplace daily verbal or behavioral indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights or insults that potentially have a harmful or unpleasant psychological impact on the target person or group" (p. 273). The first form of microaggressions discussed in the literature was racial microaggressions (Pierce, Carew, Pierce-Gonzalez, & Willis, 1977). Racial microaggressions may appear to be less blatant than traditional overt and hostile encounters of racism; however, their effect is to send the message, possibly unintentionally, that certain groups of people are second-class citizens (Sue et al., 2007). The targeted person may be left feeling devalued, invalidated,

invisible, or dismissed. Perpetrators may not even realize the damaging and harmful effects of their statements or behaviors (Capodilupo et al., 2010), as microaggressions may be outside their level of conscious awareness and are often executed by well-meaning individuals (Banaji, Hardin, & Rothman, 1993; DeVos & Banaji, 2005; Sue, 2010). Nevertheless, microaggressions have been found to have an adverse effect on the psychological well-being of those who are targets (e.g. Lewis, 2009; Meyer, 2003; Smith, Allen, & Danley, 2007; Wright & Wegner, 2012).

Though the discussion and investigation of microaggressions began with the focus on racial microaggressions, any member of a marginalized group can be a target for a microaggression in the form of slights, insults, or snubs (Sue et al., 2007). For example, gender microaggressions have been described by Nadal, Hamit, Lyons, Weinberg, and Corman (2013) and Ross-Sheriff (2012), disability-related microaggressions by Keller and Galgay (2010), and social class microaggressions have been described by Smith and Redington (2010).

### **Sexual Minority Microaggressions and Psychological Well-Being**

The possible detrimental effects of microaggressions based upon sexual orientation have been examined with only a handful of studies and most of these are qualitative explorations (e.g. Nadal, Issa, Leon, Wideman, & Wong, 2011; Nadal, Wong et al. 2011; Platt & Lenzen, 2013). Recent scholarly work has suggested that microaggressions based on sexual orientation are similar in nature to racial and gender microaggressions (Nadal, Rivera, & Salovey, 2010; Sue, 2010; Sue & Capodilupo, 2008), although there is more tolerance for blatant heterosexism in the current U.S. culture than for racism and sexism. For example, Nadal and colleagues (2010) noted that

microaggressions toward sexual minority persons are different than racial and gender microaggressions because explicit and intentional heterosexism is still widespread in interpersonal and institutional ways; racism and sexism are more commonly subtle in modern day (Swim, Hyers, Cohen, & Ferguson, 2001).

## **Mediators**

### **Internalized Heterosexism**

Heterosexism refers to the “systems that provide the rationale and operating instructions for that antipathy” toward that which is not heterosexual (Herek, 2004, p. 15). Internalized heterosexism refers to the nonheterosexual’s internalization of the negative attitudes and assumptions that society holds regarding same-sex relationships (Szymanski, 2006). Minority stress theorists (Hatzenbuehler, 2009; Meyer, 1995, 2003) and lesbian feminist sexual identity development theorists (Cass, 1979; Sophie, 1987; Szymanski, 2005) claim that internalized heterosexism can lead to mental health problems and less psychological well-being for sexual minority individuals compared to heterosexuals. Sexual minority individuals are often targets of others’ prejudice and institutionalized heterosexism. Minority stress theorists (Hatzenbuehler, 2009; Meyer, 2003) state that discrimination and prejudice foster internalized heterosexism and the psychosocial problems associated with it.

Internalized heterosexism has been associated with many negative mental health outcomes, including increased levels of psychological distress (Herek et al., 1998; Shildo, 1994; Szymanski, Chung, & Balsam, 2001), lower self-esteem (Szymanski, Kashubeck-West, & Meyer, 2008), conflict with gender roles (Szymanski & Carr, 2008), and a decrease of personal coping resources (Szymanski & Owens, 2008). Internalized

heterosexism also has been positively correlated with stigma consciousness (e.g., Lewis et al., 2003), and expectations of rejection (e.g., Denton, Rostosky, & Danner 2014; Feinstein, Goldfried, & Davilia, 2012).

### **Expectations of Rejection**

When members of stigmatized groups begin to anticipate and expect experiences of discrimination, they may begin to monitor their behavior and interactions (Meyer, 1995), thus increasing their vigilance in situations. Expectations of rejection refers to people's level of anticipation that they will experience situations in which they will be stigmatized (Meyer, 1995). Within Hatzenbuehler's (2009) psychological mediation framework, expectations of rejection are seen as a potential internal process that mediates the relationship between experiences of perceived discrimination and psychopathology. When individuals expect rejection from others, their psychological well-being may decrease. Expectation of rejection has been related to both adverse physical (Cole, Kemeny, & Taylor, 1997) and mental health outcomes (Hatzenbuehler, Nolen-Hoeksema, & Erickson, 2008). Additionally, Velez and colleagues (2013) reported that expectations of rejection were associated with psychological distress in an adult sample of lesbian, gay and bisexual individuals. Another study (Liao, Kashubeck-West, Weng, & Deitz, in press) investigated the role of expectations of rejection and two other variables, anger rumination and self-compassion, in the relationship between perceived discrimination and distress in a sample of adult sexual minority individuals. Liao et al. reported that expectations of rejection mediated the relationship between perceived discrimination and distress (anxiety and depression) through anger rumination and self-

compassion. Hence, expectations of rejection have been associated with negative psychological outcomes.

Another construct that is similar to the concept of expectations of rejection experienced by stigmatized groups is stigma consciousness. Stigma consciousness is an individual's expectation that he or she will experience discrimination based upon prejudice (Pinel, 1999). Pinel (1999) theorized that stigma consciousness is an individual difference variable that suggests how greatly members of stigmatized groups (groups who are targets of stereotypes) expect to be discriminated against because of these stereotypes. Pinel (1999) explained that one's earlier experiences with discrimination and typecasting should be a strong predictor of the magnitude to which one expects comparable experiences in the future. Pinel does not suggest that all members of stigmatized groups will experience the same level of stigma consciousness, but that stigma consciousness signifies an expectation that he or she will be stereotyped, regardless of his or her behavior or the situation (Pinel, 1999). Stigma consciousness experienced by sexual minority individuals has been associated with negative psychological outcomes in several studies, including depressive symptoms (Berghe, Dewalele, Cox, & Vincke, 2010; Lewis et al., 2003) and anxiety, depression, and suicide ideation (Kelleher, 2009).

### **Emotion Regulation**

Emotion regulation represents the mechanisms involved in monitoring, evaluating, and modifying emotional reactions (Thompson, 1994). Cognitive reappraisal, suppression and rumination are types of emotion regulation. Cognitive reappraisal is a method of cognitive change that includes interrupting a possible emotion-eliciting

situation in a way that modifies its emotional impact (Lazarus & Alfert, 1964). Suppression is a form of response modulation that includes constraining ongoing emotion-expressive behavior (Gross, 1998a). Rumination is defined as a “mode of responding to distress that involves repetitively and passively focusing on symptoms of distress and on the possible causes and consequences of these symptoms (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008, p. 400). A deficit in a person’s ability to regulate his or her emotions has been linked with adverse psychological outcomes (e.g., Aldao, Nolen-Hoeksema, & Schweizer, 2010; Berking & Wupperman, 2012; Garland et al., 2010; Hatzenbuehler, Dovidio, Nolen-Hoeksema, & Phillips, 2009). Specifically, in their analysis of the emotion regulation literature, Berking and Wupperman (2012) reported that deficits in emotion regulation seem to be applicable to the development, continuation, and treatment of numerous forms of psychopathology. They reported on evidence that associated emotion regulation deficits with depression, borderline personality disorder, substance-use disorders, eating disorders, somatoform disorders, and a variety of other psychopathological symptoms.

### **Psychological Well-Being**

Much of the literature investigating experiences of discrimination has focused on negative mental health outcomes experienced by sexual minority individuals such as depression, anxiety, and suicidality (e.g. Díaz, Ayala, Bein, Henne, & Marin, 2001; Barber, 2009; Cochran & Mays, 2000; Fergusson, Horwood, & Beautrais, 1999). Well-being, on the other hand, can also offer a rich understanding of the psychological health of sexual minority individuals. Psychological well-being is usually hypothesized to include some combination of positive affective states (e.g. happiness) and optimal

functioning within individual and social life (Deci & Ryan, 2008). Huppert (2009) stated that psychological well-being is about lives going; this includes the combination of feeling good and functioning effectively. Therefore, people who report feeling happy, capable, well-supported, and satisfied with life, have higher levels of psychological well-being (Huppert, 2009). Feeling happy, capable, satisfied with life, and so on, are not assessed when discussing psychological distress. Psychological distress usually includes assessing psychopathology; identifying an array of symptoms from particular mental health diagnoses. Psychological well-being will be the focus of this study because, even though sexual minority individuals experience stress as a result of heterosexism, they also develop positive coping strategies and means of self-protection. Focusing on psychological well-being moves the discussion towards a more holistic perspective of the individual. Psychological well-being will be elaborated upon within in Chapter II.

### **Purpose and Hypotheses**

The purpose of this research is to investigate potential mediators of the relationship between sexual minority microaggressions and psychological well-being. The body of research relating to the experience of microaggressions and its effects on sexual minority individuals is lacking. To date, there have been only a few studies (e.g., Balsam, Molina, Beadnell, Simoni, & Walters, 2011; Nadal, Wong et al., 2011; Shelton & Delgado-Romero, 2011; Wright & Wegner, 2012) exploring this topic. The research question that informed this study was: Does internalized heterosexism, expectations of rejection, and emotion regulation mediate the relationship between the experience of microaggressions and psychological well-being in LGB individuals?



This study may further the field's knowledge and understanding of how experiences of subtle discrimination (i.e. microaggressions) affect the lives of sexual minority individuals. By investigating specific potential mediators in the link between stress-related stigma and psychological well-being, specific targets of prevention and intervention may be developed for this population, thereby decreasing the higher incidence of mental health concerns. Mental health professionals may then be trained to implement the identified interventions specifically targeted to increase psychological well-being and decrease distress in LGB individuals.

Associations between heterosexism, internalized heterosexism, expectations of rejection, emotion regulation and mental health have been established and framed within minority stress theories (Hatzenbuehler, 2009; Meyer, 2003). In accordance with Hatzenbuehler's (2009) psychological mediation framework, sexual minority microaggressions can be viewed as forms of stress resulting from stigma. This exposure to microaggressions could create elevations in processes that mediate between microaggressions and well-being. Thus, this proposed mediation model (Appendix C) hypothesized that internalized heterosexism, expectations of rejection and emotion regulation would mediate the relationship between sexual minority microaggressions and psychological well-being. This mediation model also posited that the experience of microaggressions by LGB individuals would lead to more expectations of rejection and internalized heterosexism and less emotion regulation. These hypotheses are consistent with Hatzenbuehler's (2009) model in that they suggest a mediating variable between stigma and psychological outcomes. The study's variables were chosen on the basis of

theoretical underpinnings and previous empirical research regarding direct links between these variables. More detail will be provided in Chapter II.

The current study's hypotheses are as follows:

*Hypothesis 1:* Internalized heterosexism will mediate the relationship between experiences of sexual minority microaggressions and psychological well-being.

*Hypothesis 2:* Expectations of rejection will mediate the relationship between experiences of sexual minority microaggressions and psychological well-being.

*Hypothesis 3:* Emotion regulation will mediate the relationship between experiences of sexual minority microaggressions and psychological well-being.

*Hypothesis 4:* Sexual minority microaggressions will be negatively correlated with emotion regulation and positively correlated with expectations of rejection and with internalized heterosexism.

*Hypothesis 5:* Sexual minority microaggressions will be negatively correlated with psychological well-being.

### **Summary**

This chapter introduced the purpose of this research project and the rationale for its development and necessity. The concept of microaggressions, sexual orientation microaggressions, internalized heterosexism, expectations of rejection, and emotion regulation were introduced and reviewed briefly. A mediation model was developed and framed within Hatzenbuehler's (2009) psychological mediation framework exploring the relationship between subtle discrimination and psychological well-being. Chapter II will review the relevant literature. Chapter III is an overview of the methodological procedures. Chapter IV will present the results discovered through data analysis and

Chapter V will conclude with a discussion, implications of findings and suggestions for future research.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

The experience of being a sexual minority individual in current day presents with many challenges. Those challenges and the context within which those challenges manifest will be the discussion for this literature review. This review will begin with an overview of the prevalence of mental health problems experienced by sexual minority individuals. Minority stress theorists' explanation for the increase in mental health problems in sexual minority individuals will be discussed, in addition to the constructs of sexual orientation microaggressions and psychological well-being. Relevant literature relating to the three mediators within the stigma-related stress and psychological well-being link will be reviewed. The purpose of this chapter is to illuminate the evidence provided through theory and research to provide the foundation for the hypotheses derived for this mediation model.

#### **Prevalence of Mental Health Problems in Sexual Minority Individuals**

The prevalence of mental health problems within any group in society is a concern that warrants attention. With an estimated nine million people in the United States who identify as sexual minorities (Gates, 2011), it is essential to acknowledge and investigate the disparate rates of psychological distress and well-being between sexual minority individuals and heterosexual individuals (e.g. Díaz et al., 2001; Gilman et al., 2001; Hatzenbuehler et al., 2008; Herek et al., 2009; Herek et al., 1998; Herrell et al., 1999; Mohr & Daly, 2008; Sandfort et al., 2001). Attention directed within this realm could identify possible interventions targeted at the system and individual level that may

alleviate suffering and decrease economic, intrapersonal, and systemic costs associated with mental health disorders.

Prior to its removal from the Diagnostic and Statistical Manual of Mental Disorders (DSM) in 1973 (DSM-II; American Psychiatric Association, 1973), “homosexuality” was listed as a diagnostic classification. This diagnosis communicated that a person who experienced non-heterosexuality was deviant and experiencing psychopathology. This background information provides the context for the discussion related to the prevalence of mental health problems experienced by sexual minority individuals. Research has shown that individuals within the sexual minority community are at high risk for negative mental health outcomes (e.g., Barber, 2009; Cochran & Mays, 2000; Díaz et al., 2001; Fergusson et al., 1999).

As an overview, as reported by Cochran and Mays (2013), 16 studies indicated greater levels of depressive distress, major depression, generalized anxiety disorder, panic attacks, alcohol dependency, and drug dependency among sexual minority individuals as compared to heterosexual individuals. Cochran and Mays also reported that among these studies, sexual minority men, compared to heterosexual men, showed a higher occurrence of major depression, generalized anxiety disorder, panic, alcohol and drug dependency. Additionally, sexual minority women, compared to heterosexual women, displayed a higher occurrence of recent major depression, generalized anxiety disorder, and alcohol dependency. Relatedly, a higher prevalence of depression (Díaz et al., 2001; Fergusson et al., 1999; Hatzenbuehler et al., 2008; Herek et al., 2009; Herek, et al., 1998; Mohr & Daly, 2008), and anxiety (Díaz et al., 2001; Fergusson et al., 1999; Gilman et al., 2001; Hatzenbuehler et al., 2008; Herek et al., 1998; Sandfort et al., 2001)

has been found in sexual minority samples as compared to heterosexual samples. Cochran and Mays also noted that approximately 20% of LGB persons reported experiencing major depression on an annual basis. Among sexual minority men and women, the second most common disorder reported among studies was alcohol dependency (Cochran & Mays, 2013). Further, Meyer (2003) conducted a meta-analysis of 10 studies comparing sexual minority health to that of heterosexuals and reported that sexual minorities were two and a half times more likely to have experienced psychopathology at any point in their lifetime and twice as likely to have a current mental health disorder. Finally, substance abuse and/or dependence (Cochran et al., 2000; Drabble, Midanik, & Trocki, 2005; Fergusson, et al., 1999; Gilman et al., 2001; Hughes, 2003) has also been documented as a concern experienced by sexual minority individuals.

### **Suicide**

Research has documented that sexual minority youth are at a greater risk to experience suicidal ideation and/or attempt suicide as compared to their heterosexual peers (e.g., Gibson, 1989; Hatzenbuehler, 2011; Zhao, Montoro, Igartua, & Thombs, 2010). Hatzenbuehler (2011) reported that LGB youth, within the previous 12 months, were significantly more likely to attempt suicide (21.5%) as compared with heterosexual youth (4.2%), with the risk of attempting suicide 20% greater in unsupportive environments as compared to supportive environments.

Additionally, Zhao et al. (2010) investigated suicide attempts among adolescents who identified as LGB, as 'unsure,' or as heterosexual with same-sex attraction/fantasy or behavior as compared to heterosexual youth without same-sex attraction/fantasy or

behavior. Adolescents with LGB and unsure identities experienced a greater risk of suicidality and two to three times higher risk for suicidal ideation than adolescents with a heterosexual identity without same-sex attraction/fantasy or behavior.

Three recent studies have also investigated suicide ideation/attempt within sexual minority samples (e.g. Irwin & Austin, 2013; Liu & Mustanski, 2012; Mustanski & Liu, 2013). Irwin and Austin (2013), in a sample of adult lesbians living in the southern United States, reported that more than 40% of participants had seriously considered suicide and more than 15% had attempted suicide. They noted that depressive symptoms, discrimination, social support, self-esteem, and stigma were predictors of suicide ideation and attempts. Additionally, Liu and Mustanski (2012) reported, from a community sample of sexual minority youth (16-20 years old), that a history of suicide attempt, impulsivity, LGBT victimization, and low social support were related to increased risk for suicidal ideation. Greater self-harm was associated with suicide attempt history, sensation-seeking, female gender, childhood gender nonconformity, prospective hopelessness, and victimization. Finally, Mustanski and Liu (2013) investigated nine risk and protective factors for suicide attempts in an ethnically diverse sample of sexual minority youth. Seven variables were associated with lifetime history of attempted suicide including: hopelessness, depression symptoms, conduct disorder symptoms, impulsivity, victimization, age of first same-sex attraction, and low family support. The strongest predictor reported of suicide attempts was a participant's suicide history, with participants who previously had attempted suicide experiencing 10 times the likelihood of making another attempt in the one-year follow-up period than were those who had made no previous attempt.

## **Other Societal Concerns**

Other societal concerns not discussed here, but related to the mental health of sexual minority individuals include: concerns of homelessness (Rosario, Schrimshaw, & Hunter, 2012; Ross, Timpson, Williams, Amos, & Brown, 2007), victimization and abuse (Friedman et al., 2011; Pilkington & D'Augelli, 1995; Katz-Wise & Hyde, 2012), spiritual health (Cates, 2007; Lease, Horne, & Noffsinger-Frazier, 2005; Sherry, Adelman, Whidle, & Quick, 2010), risky behavior, including sexual (Walls, Laser, Nickels, & Wisneski, 2010; Ross et al, 2007), and access to health and aging services (Addis, Davies, Greene, MacBride-Steward, & Shepherd, 2009; Almack, 2010). The cultural context in which these negative mental health outcomes occur warrants discussion and explanation.

## **Heteronormativity**

The cultural context for which mental health concerns are experienced by sexual minority youth and adults arise within and as a result of heteronormativity (Herek, 2004). Heteronormativity is a concept that exposes the constraints, expectations, and demands, manufactured when heterosexuality is treated as the norm within a society (Chambers, 2003). Heteronormativity highlights the degree to which everyone is judged, assessed, surveyed, and evaluated from the viewpoint of the heterosexual norm; everyone and everything is evaluated from the perspective of straight (Chambers, 2003). Heteronormativity highlights beliefs relating to sex and gender, and beliefs in the normality or naturalness of people of different sexes to be attracted to and in a romantic relationship with one another, to be openly recognized, and to be rejoiced through a variety of social discourses and institutions (Kitzinger, 2005). Within this system “same-



sex couples are (if not 'deviant') a 'variation on' or an 'alternative to' the heterosexual couple" (Kitzinger, 2005, p. 478).

Cultural behaviors, values, and practices institutionalize heteronormativity, promoting it as a natural phenomenon. Heteronormativity, in some ways, has become a latent social norm, rather than an overt act of prejudice with intent to discriminate against sexual minority individuals (Kitzinger, 2005). A majority of people in society embrace beliefs in equality and democracy and do not support deliberate discrimination against others. Even with that, "because no one is immune from inheriting the biases of the society, all citizens are exposed to a social conditioning process that imbues within them prejudices, stereotypes, and beliefs that lie outside their level of awareness" (Sue, 2010, p. 23).

Chambers (2003) stated that heteronormative culture pictures an ideal citizen as someone "who is straight, white, god-loving, and a flag-waving jock of a man" (p. 31). Heteronormative attitudes are stigmatizing, oppressive and marginalizing of perceived abnormal forms of sexuality and gender, and make expressing one's identity more challenging when that expression does not imitate the societal and political norms (Berlant, Warner, Berlant, & Warner, 1998). Heteronormative culture "privileges heterosexuality as normal and natural" and cultivates an environment where sexual minority individuals are discriminated against in employment, marriage, and tax codes (McCreery, 2001, p. 33).

In addition, the United States Declaration of Independence identifies "unalienable rights" that all human beings are entitled to, including "Life, Liberty and the pursuit of Happiness" ("The," n.d.). These Rights are conceivably unattainable when sexual

minority individuals are forced to create and reconcile an identity within heteronormativity. Unlike most other minority groups, sexual minority individuals are often “not recognized as a legitimate minority group deserving of constitutional protections against discrimination” (DiPlacido, 1998, p. 138). The challenging task of creating and reconciling an identity may lead to the presence of mental health concerns within sexual minority individuals (Hatzenbuehler, 2009; Herek, 2004; Meyer, 2003).

The terms heterosexism and homophobia have been used interchangeably within the literature to describe negative societal and political beliefs and attitudes related to sexuality that is not heterosexual. The term ‘heterosexism’ was used in this study. Chambers (2003) explained his intentionality in abstaining from the use of the word ‘homophobia’ to describe the discriminatory beliefs held by mainstream culture. He stated that this term diminishes the “act of discrimination” (p. 26) against sexual minority individuals to the part of a single individual, while dismissing the social and political forces that drive heteronormativity. Even further, he noted that this reduction promotes that homophobia then exists only in people’s heads, and that it is not a function of larger cultural, social and political messages.

Similar to heteronormativity, heterosexism is a system of attitudes, bias, and discriminatory behaviors in favor of heterosexuality. Theorists have stated that stigma-related stress experiences can affect the psychological well-being of sexual minority individuals. Minority stress theories and their connection to stigma-related experiences and psychological well-being are discussed next.

## **Minority Stress Theories**

Dating back decades, researchers and theorists have attributed lesbian, gay and bisexual (LGB) individuals' experiences of stress to be a consequence of perceived stigmatization (Brooks, 1981; Cass, 1979, 1984; DiPlacido, 1998; Meyer, 1995; Sophie, 1987) and this stigmatization has been associated with negative psychological outcomes (e.g., Beaber, 2008; Frable et al., 1997; Grigoriou, 2010; Lewis et al., 2003).

Currently, minority stress theorists and researchers continue to attribute the higher incidence of mental health problems among sexual minority individuals to be a result of experiencing stigma, prejudice, and discrimination; these factors create a taxing environment that can lead to mental health problems in people who belong to marginalized groups (DiPlacido, 1998; Friedman, 1999; Hatzenbuehler, 2009; Herek, 2000, 2004; Herek et al., 2009; Meyer, 2003; Mohr & Daly, 2008; Otis & Skinner, 1996). Two prominent theories have been proposed to explain the increase in mental health concerns: Meyer's (2003) Minority Stress Model, and Hatzenbuehler's (2009) Psychological Mediation Framework.

### **Minority Stress Theory**

Minority stress theory (Meyer, 2003) suggests that sexual minority negative mental health disparities compared to heterosexuals can be attributed to stressors produced by a hostile, heterosexist culture, which results in maltreatment, harassment, discrimination and victimization. The minority stress model is based on elements related to stressors and coping mechanisms and their effect on mental health outcomes, positive or negative. Many of the ideas in the model intersect, representing the interdependent nature of their relationships. The model explains stress processes to include experiences of victimization

and discrimination, expectations of rejection, internalized stigma, and coping processes. Several assumptions underlie Meyer's conceptualization of minority stress, including the ideas that minority stressors are exclusive to minority individuals, chronic, and socially based.

### **Theoretical Foundation.**

The foundation for Meyer's (1995, 2003) minority stress theory is grounded in several theoretical frameworks. Meyer (2003) explained that stress theory expanded into the concept of social stress signifying that circumstances in the social environment are sources of stress and may lead to adverse health effects. Experiences such as poverty and prejudice create situations that require the individual to adapt, thus creating a stressful experience. In addition to stress theory, Meyer stated that the minority stress model was compiled from several perspectives including sociological and social psychological theories. Meyer reported that sociological theorists have been attentive to the isolation experienced by minority groups from social structures, norms and institutions, while social psychological theories provided a foundation for comprehending the dynamic relationship between intergroup relations and the impact of minority positions on health.

Stress literature, psychological theory and research on the health of sexual minority populations provided the infrastructure to express a minority stress model (Meyer, 2003). Additionally, the minority stress model was patterned after Dohrenwend's (1998, 2000) stress model. Dohrenwend illustrated the stress course within the framework of a person's strengths and vulnerabilities within the environment and within the individual (Meyer, 2003). Meyer also utilized the concepts of distal and proximal stressors as described by Lazarus and Folkman (1984).

### **Theory Explanation.**

Meyer's (2003) minority stress model (Appendix A) suggests that the higher occurrence of mental health problems experienced by sexual minority individuals is caused by an excess in societal stressors related to stigma and prejudice. According to the minority stress model, stigma, prejudice, and discrimination create an antagonistic and stressful social environment that leads to mental health problems. Meyer stated that minority stress is located within general environmental circumstances (Appendix A, see box a). Within these general environmental circumstances is a person's minority status (Appendix A, see box b; e.g., sexual minority label, gender, socioeconomic status, race/ethnicity, etc.), which lead to a person's minority identity (Appendix A, see box e; e.g., lesbian, gay, female, low socioeconomic status, Asian-American, etc.). Meyer noted that multiple minority identities (e.g., Asian-American lesbian) would determine a person's exposure to stress and coping resources.

Meyer (2003) explained that the circumstances in the environment may lead to general stressors (Appendix A, see box c) in the environment. These general stressors include the death of a loved one, financial difficulties, moving, or employment loss. In addition to general stressors in the environment, which are experienced by everyone regardless of their social status, minority stressors are experienced by those who identify with a minority status (e.g. sexual orientation, race/ethnicity, gender). Minority stress processes include distal stressors (Appendix A, see box d; discrimination, prejudice, rejection) and proximal stressors (Appendix A, see box f; expectations of rejection, internalized stigma, concealment).

As taken from Lazarus and Folkman (1984), distal concepts include social structures and proximal concepts include the social experiences of the person. Distal minority stressors can be identified as “objective stressors in that they do not depend on an individual’s perception and appraisals” (Meyer, 2003, p. 676). Diamond (2000) noted that distal stressors can be seen as separate from self-identification with the designated minority status. Proximal minority stressors are “more subjective and are therefore related to self-identity” in that they “vary in the social and personal meanings that are attached to them and in the subjective stress they entail” (Meyer, 2003, p. 676-677). Meyer noted in the diagram of the model that the distal and proximal stressors overlap, indicating that there is a relationship between them. For instance, if there is an experience with antigay violence, a distal stressor, it is likely that someone’s expectation of rejection, a proximal stressor, will be influenced.

Meyer (2003) stated that an individual’s minority status (Appendix A, see box b) may lead to identification with that minority status (Appendix A, see box e; minority identity). He reported evidence that an individual’s connection with his or her minority status (minority identity) may add other stressors that are associated with the individual’s perception of the self as a stigmatized individual. These would include the minority stress processes (Appendix A, see box f; proximal) such as expectations of rejection and internalized stigma. In addition, a person’s minority identity is related to the expression of characteristics of minority identity (Appendix A, see box g), such as prominence, valence, and integration.

Characteristics of minority identity (Appendix A, see box g) may be connected to mental health outcomes through their interaction with stressors (Meyer, 2003). For

example, prominence of identity may intensify stress, which would lead to negative mental health outcomes (Appendix A, see box i). Meyer also explained that the characteristics of minority identity (prominence, valence, integration) may moderate the stress process, thus exacerbating or decreasing one's ability to cope with stressors. Characteristics of minority identity may weaken the effect of stress. For example, valence, which refers to a person's self-evaluation of their identity, may be a predictor of mental health outcomes. Integration of the minority identity (self-acceptance) is seen as the last stage of identity integration within identity developmental models. Individuals who have negative valence and less identity integration may experience more mental health problems than those who have positive valence and have integrated their sexual orientation identity.

Within the minority stress model, Meyer (2003) included coping and social support (Appendix A, see box h; individual and community level), noting that minority members respond to discrimination and prejudice with coping and resilience. The minority stress model demonstrates how stress and resilience interact in forecasting negative mental health outcomes (Appendix A, see box i).

As an overview, circumstances in the environment, minority status and minority identity lead to stressors (general and minority stress processes – proximal and distal) (Meyer, 2003). These stressors are moderated by coping and social support and characteristics of minority identity – ultimately leading to mental health outcomes, positive or negative.

### **Psychological Mediation Framework**

Hatzenbuehler's (2009) mediation frameworks (psychological and integrative) also postulate that sexual minorities meet increased stress exposure as a result of prejudice. Hatzenbuehler contends that the relationship between stigma-related stress and psychopathology is mediated by changes in emotional modulation, social and interpersonal problems, and cognitive processes, increasing the risk for psychopathology.

### **Theoretical Foundations.**

Hatzenbuehler (2009) reported that a framework was needed to integrate two separate literatures, group specific-processes in the form of minority stress (Meyer, 2003) and general psychological processes (Diamond, 2003; Savin-Williams, 2001) that have focused on identifying factors creating the risk for mental health problems experienced by sexual minority individuals. This framework fuses together findings from these literatures, noting the interconnection among group-specific and general psychological processes in the progression of psychopathology.

Hatzenbuehler (2009) explained that the psychological mediation framework (Appendix B) is based on two avenues of research, general stress models and social psychology of stigma. Hatzenbuehler reported that general stress models identified stress-initiated psychological processes that may lead to mental health problems and included mediating resources (coping and social support) that can temper the effects of stressful life events. Social psychology of stigma has been concerned with exploring the adverse effects of stigma, often on group-level processes, such as protecting against internalized stigma. Additionally, Hatzenbuehler commented that this framework is grounded in transactional definitions of stress (Monroe, 2008), which state that environmental and response mechanisms of stress are vital in determining health outcomes.



**Theory Explanation.**

Hatzenbuehler's (2009) psychological mediation framework proposes three main hypotheses:

(a) Sexual minority individuals confront increased stress exposure resulting from stigma; (b) this stigma-related stress creates elevations in general emotion dysregulation, social/interpersonal problems, and cognitive processes conferring risk for psychopathology; and (c) these processes in turn mediate the relationship between stigma-related stress and psychopathology (p.707).

These hypotheses provide an overview for the psychological mediation framework and one branch of the integrative mediation framework (Appendix D; of group-specific and general psychological processes). The integrative mediation framework is a more extensive overview of Hatzenbuehler's theory and the effects of stigma-related stress. He describes the importance of the integrative framework as it includes both general and group-specific mediators. Group-specific mediators include proximal stressors, such as expectations of rejection, internalized stigma, and concealment. Hatzenbuehler highlights the bidirectional nature of the possible relationships between general psychological processes and group-specific processes. For example, an LGB person who experiences higher levels of internalized stigma may also experience less social support and/or an inability to regulate their emotions. The general psychological processes (coping/emotion regulation, social interpersonal, cognitive processes) may be related to the group-specific processes (expectations of rejection, internalized stigma, concealment).

Hatzenbuehler's (2009) model begins by noting that sexual minorities experience stress as a result of stigma, discrimination and prejudice. Similar to Meyer,

Hatzenbuehler utilizes the term ‘distal stressors’ to explain happenings that occur outside of the individual, such as victimization and discrimination. He stated that stigma-related stress experiences (distal stressors) initiate general psychological processes within the individual. Based upon the literature, he identified three psychological processes that highlight common vulnerabilities in processes that both sexual minority individuals and heterosexuals experience. These include coping/emotion regulation, social/interpersonal, and cognitive. Coping/emotion regulation includes strategies such as rumination and emotional awareness. Social/interpersonal processes include social isolation and social norms. Cognitive processes include hopelessness and negative self-schemas.

Hatzenbuehler (2009) explained that these general psychological processes mediate the relationship between stigma-related stress and psychopathology in that stigma-related stress initiates the general psychological process and these lead to negative mental health outcomes. Hatzenbuehler noted that some of the variables considered as mediators may also serve as moderators and explained that mediator variables signify why a relationship may exist between a predictor variable and an outcome, whereas moderator variables seek to find when or for whom the relationship exists.

Hatzenbuehler’s primary goal is to “explain why stigma-related stressors lead to psychopathology” (Hatzenbuehler, 2009, p. 713), which can be accomplished by investigating mediational processes. This is the emphasis of his psychological mediation framework.

The difference between Hatzenbuehler’s (2009) psychological mediation framework and his integrative framework is that the integrative framework incorporates group-specific processes, as well as general psychological processes. He explained that

the psychological mediation framework highlighted psychological processes because these processes can be targeted for intervention. Incorporating group-specific process into the integrative mediation framework, such as expectations of rejection, internalized stigma, and concealment, acknowledge the additional stress experienced by sexual minority individuals – emphasizing that these processes may also mediate the stress- psychopathology connection. This integrative framework contends that one risk factor is an outcome of the other and that both influence the mechanisms that causes psychopathology within sexual minority individuals.

### **Theory Comparison**

The main idea of the minority stress theory (Meyer, 2003) is that sexual minority individuals experience stress related to their devalued, minority status - which creates stress and increases the risk for negative mental health outcomes. Meyer identified several minority stress processes including discrimination, the internalization of negative societal attitudes, expectations of rejection, and concealment. Hatzenbuehler (2009) extended minority stress theory by suggesting potential mechanisms to explain why the association between stigma-related stress and negative mental health outcomes is present. These are referred to as general psychological processes (e.g., emotional regulation deficits, lack of social support, etc.) For example, the experience of discrimination may result in a decrease in one's ability to regulate his or her emotions. In turn, emotion dysregulation may then lead to mental health problems.

Hatzenbuehler's (2009) model begins by noting that sexual minorities experience stress as a result of stigma, discrimination and prejudice, whereas Meyer's (2003) model begins by identifying the circumstances in the environment, such as the minority status of

the individual, that may lead to minority stressors such as discrimination. Meyer's model proposes that the minority individual experiences discrimination (minority stress processes) as a result of the person's minority status and identity. Hatzenbuehler does not disagree with the association between minority status and experiences of discrimination. His model, though, emphasizes that minority status and identity would be moderators in the relationship between stigma-related stress and mental health outcomes. They are not a catalyst for the models' progression. A clear distinction between the models is the differing placements of the individual's minority status and its effect upon mental health outcomes. Within the integrative mediation framework model, minority status is defined as a moderator in that it affects when the relationship holds true and for whom. In terms of the minority stress model, minority status is seen as a predictor variable for the manifestation of psychopathology.

A critical distinction between the models is that Hatzenbuehler (2009) elaborated upon the association between minority stress processes (distal and proximal) and mental health outcomes within Meyer's (2009) model; adding the explanation as to why this relationship exists. The minority stress model proposed by Meyer does not describe the causal link between stressors and mental health outcomes. Hatzenbuehler extended Meyer's model by adding the mechanisms that may implicate processes to target for intervention to prevent and decrease the occurrence of mental health disorders in sexual minority individuals. The psychological mediation framework "simultaneously addresses how general psychological processes become initiated and how stigma-related stress leads to psychopathology" (Hatzenbuehler, 2009, p.712).

Additionally, Hatzenbuehler (2009) described three main distinctions between the minority stress model (Meyer, 2003) and the psychological mediation framework. First, he noted that in the minority stress model, stress is a mediator in the relationship between social status and health outcomes whereas general psychological processes are the mediators in the psychological mediation framework. Hatzenbuehler also included general psychological processes, which Meyer did not. Finally, he stated that the psychological mediation framework has significant implications for intervention and prevention strategies that are not highlighted in the minority stress theory. He continued to explain that most interventions within the minority stress model target the societal level, with a focus on eradicating structural forms of prejudice and discrimination. Though change is necessary and overdue at the societal level, clinical interventions at the individual level are needed for mental health professionals to address the mental health problems experienced by sexual minority individuals. Interventions may be created and implemented based upon research that highlights the mechanisms that mediate the relationship between stress and psychopathology. With regard to the integrative mediation framework, it provides a research paradigm for future investigation on LGB mental health disparities. Specifically, moderated mediation may be tested through the integrative framework, along with testing bidirectional relations between the predictors, mediators, moderators, and outcomes, and the validity of general versus group-specific processes as mediators of the stress–psychopathology relationship.

Within Hatzenbuehler’s model, the experiences of microaggressions will be treated as experiences of discrimination. Microaggressions are elaborated upon next.

## **Microaggressions**

The experience of subtle forms of oppression by racial minorities has been labeled as a ‘microaggression’ (Pierce et al., 1977). Sue et al. (2007) expounded on this concept and described microaggressions as the “brief and commonplace daily verbal or behavioral indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights or insults that potentially have a harmful or unpleasant psychological impact on the target person or group” (p. 273). Sue et al. (2007) continued to explain that racial microaggressions could appear to be less blatant than old-fashioned encounters of racism; however, their effect sends the message, possibly unintentionally, that certain groups of people are second-class citizens. Any member of a marginalized group can be a target for microaggressions in the form of slights, insults, or snubs.

Racial microaggressions were the first type of microaggressions to be studied and currently have the most empirical research available in the literature. The experience of racial microaggressions has been linked with mental health outcomes (e.g. Blume, Lovato, Thyken, & Denny, 2012; Torres, Driscoli, & Burrow, 2010; Wang, Leu, & Shoda, 2011) and will be expanded upon, utilizing this body of research as a platform to hypothesize that sexual minority individuals may also experience negative mental health outcomes as a result of experiencing microaggressions.

### **Racial Microaggressions and Psychological Well-Being**

Recent studies have provided evidence of the influence that racial microaggressions can have on the well-being of racial minorities, including increased levels of perceived stress and depression in African-American graduate students (Torres

et al., 2010), increased risks for higher anxiety and binge alcohol use in ethnic minority college students at a historically White university (Blume et al., 2012), and greater negative emotional intensity when Asian Americans encountered a situation because of their race (Wang et al., 2011). Evidence has also connected the experience of racial microaggressions to chronic physical health problems (Burrow, & Hill, 2012; Gee, Spencer, Chen, & Takeuchi, 2007), negative affect (Ong, Fuller-Rowell, & Burrow, 2009), and coping (Torres et al, 2010). Salvatore and Shelton (2007), for example, investigated how encountering racial prejudice affects cognitive functioning in a sample of undergraduate students ( $N = 255$ ). Participants' performance on cognitive tasks was assessed after they reviewed job files that suggested nonprejudiced, ambiguously prejudiced, or blatantly prejudiced hiring recommendations. Salvatore and Shelton reported that the effects of exposure to ambiguous versus blatantly prejudiced hiring recommendations depended on the participants' racial group. Black participants experienced the greatest cognitive impairment when they saw ambiguous evidence of prejudice, whereas White participants experienced the greatest impairment when they saw blatant evidence of prejudice. Salvatore and Shelton concluded that Blacks may be especially vulnerable to cognitive impairment resultant from exposure to ambiguous prejudice; a level of prejudice of which Whites may not even be aware.

Two qualitative studies investigated campus climates and the effects of racial microaggressions. Solórzano, Ceja, and Yosso (2000) gathered data using focus groups with 34 African-American students on three predominantly White campuses exploring racial microaggressions and how they influence campus racial climate. They reported the existence of racial microaggressions in the academic and social settings on campuses and

that the negative racial climate on these campuses led to feelings of self-doubt, frustration, exhaustion, and isolation for the African American students. Similarly, Yosso, Smith, Ceja, and Solórzano (2009) investigated three predominantly White college campuses using focus groups with 37 Latino/a undergraduate students to explore educational and personal experiences with regard to campus racial climate. The students reported experiencing immense stress and drains on their energy and enthusiasm, leaving them feeling like “outsiders” as a result of experiencing racial microaggressions. Participants’ viewed their experience of racial microaggressions as a form of rejection of their efforts to become assimilated on their university campus.

Nadal, Griffin, Wong, Hamit, and Rasmus (2014) investigated the relationship between racial microaggressions and mental health (anxiety, depression, behavioral control, and positive affect) in an undergraduate and community sample ( $N = 506$ ) ranging from 18-66 years old. They reported that frequency of racial microaggressions (total score on Racial and Ethnic Microaggression Scale; Nadal, 2011) negatively predicted participants’ mental health (total score of the Mental Health Inventory; Veit & Ware, 1983). Although this correlation was weak ( $r = -.11$ ), Nadal et al. (2014) reported that other factors may mediate the relationship between experiences with racial microaggressions and mental health. Nadal et al. (2014) also reported that the specific types of microaggressions (e.g. being treated like a second-class citizen, microaggressions in which they are invalidated, and microaggressions in which they are exoticized, or assumed to be similar to others in their group) were correlated with specific mental health problems (depression and lack of positive affect;  $r = -.12$  to  $-.16$ , respectively). Nadal et al. (2014) hypothesized that these weak correlations (all measures



and subscales had reported alphas greater than .90) may provide opportunities for future research investigating potential mediating factors to explain the relationship between racial microaggressions and mental health lending support that research is needed to investigate the possible mediating variables in the relationship between stigma-related stress and well-being.

Additionally, Donovan, Galban, Grace, Bennett, and Felicié (2013) investigated the prevalence of perceived racial macroaggressions and microaggressions in Black women's lives and their relationship with depressive and anxious symptoms in an undergraduate sample of self-identified Black women ( $N = 187$ ). Ninety-six percent of the participants reported experiencing some type of microaggression at least a few times a year, and 63% reported experiencing some type of macroaggression at least once in a while within the past year. The experience of racial macroaggressions and microaggressions significantly predicted depressive symptoms ( $\beta = .23$  and  $\beta = .18$ , respectively); the authors concluded that these experiences are common for Black women to encounter and are associated with negative mental health outcomes.

Similar to the previous study, Ong, Burrow, Fuller-Rowell, Ja, and Sue (2013) investigated racial microaggressions and the prevalence of psychological outcomes that reflect the Asian American experience. A sample of 152 Asian American college freshmen completed measures of microaggressions, positive affect, negative affect, and somatic symptoms every day for 14 consecutive days. Seventy-eight percent of participants reported experiencing some form of racial microaggressions. Between-person results indicated that participants who experienced more microaggressions on average reported higher negative affect ( $\gamma = .31$ ), lower positive affect ( $\gamma = .18$ ), and more

somatic symptoms ( $\gamma = .04$ ). Within-person results indicated that negative affect ( $\beta = .11$ ) and somatic symptom ( $\beta = .03$ ) scores tended to be higher on days with more microaggressions. Data analyses indicated that higher frequency of daily microaggressions, as well as greater microaggressions on average, predicted increases in somatic symptoms and negative affect.

Ample evidence has been provided to show the association between the experience of racial microaggressions and negative psychological, physical, emotional and cognitive effects (e.g., Burrow & Hill, 2012; Gee et al., 2007; Ong et al., 2013; Sol'orzano et al., 2000; Torres et al., 2010; Wang et al., 2011). Researchers have begun to discuss microaggressions related to other marginalized groups, such as sexual orientation microaggressions (Wright & Wegner, 2012), transgender microaggressions (Nadal, Skolnik, & Wong, 2012), gender microaggressions (Nadal et al., 2013), social class microaggressions (Smith & Redington, 2010), and disability-related microaggressions (Keller & Galgay, 2010). These forms of subtle discrimination are thought to have a range of negative consequences associated with psychological, behavioral, educational, economical, and cognitive well-being (Sue, 2010).

Wright and Wegner (2012) reported that much of the current research has focused upon racial microaggressions and more understanding is needed of the experiences of sexual minorities. Although Sue et al. (2007) initially focused on racial discrimination, they also concluded that other types of microaggressions “may have equally powerful and potentially detrimental effects on gay, lesbian, bisexual, and transgender individuals” (Sue et al., 2007; p. 284). Before discussing the research linking the experience of sexual

orientation microaggressions and well-being, a typology of sexual orientation microaggressions is discussed.

### **Taxonomy of Sexual Orientation and Transgender Microaggressions**

The taxonomy of microaggressions began with Sue et al. (2007) identifying three major categories of microaggressions: microinsults, microassaults and microinvalidations. Microinsults are the expressions of rudeness or insensitivities that are often unconscious, yet send demeaning messages to the aggrieved. A common example of a microinsult from the Nadal et al. (2010) study is a heterosexual individual who displays distress or dissatisfaction with sexual minority public displays of affection. The perpetrator may not realize that her or his behavior is offensive, belittling, and hurtful to the recipient. Microassaults are conscious, overt attacks intended to harm and include everything from making heterosexist comments to telling demeaning jokes. Microassaults include being told directly to “not act gay” or being told that one “is a sinner.” Microinvalidations are statements that negate or undermine the experience of a sexual minority. An example would be someone stating that someone’s sexual orientation “doesn’t matter because they just see the person.” This invalidates and negates a crucial component of one’s identity and experience.

Although these three major categories of microaggressions were identified, researchers have expanded the discussion of types of microaggressions and have developed taxonomies of microaggressions relating to specific marginalized groups (e.g. racial microaggressions, gender microaggressions, and sexual orientation microaggressions). For example, Sue (2010) assembled a specific typology of sexual orientation microaggressions that he hypothesized were likely to be experienced by

sexual minority individuals. Sue (2010) theorized sexual minority individuals confront seven different forms of sexual orientation microaggressions including: (a) oversexualization, (b) homophobia, (c) heterosexist language/terminology, (d) sinfulness, (e) assumption of abnormality, (f) denial of individual heterosexism, and (g) endorsement of heteronormative culture/behaviors.

Branching off of Sue's (2010) work, Nadal et al. (2010) offered a theoretical taxonomy of eight sexual orientation and transgender microaggressions: (a) use of heterosexist or transphobic terminology; (b) endorsement of heteronormative or gender normative culture and behaviors; (c) assumption of universal LGBT experience; (d) exoticization; (e) discomfort with or disapproval of LGBT experience; (f) denial of the reality of heterosexism and transphobia; (g) assumption of sexual pathology/abnormality; and (h) denial of individual heterosexism. This classification of microaggressions was investigated by Nadal, Issa et al. (2011) who gathered data with focus groups comprised of university and community participants ( $N = 26$ ) who identified as LGB. They used content analysis to organize the data. The results indicated that eight themes were found in participant responses, seven of which matched the types proposed by Nadal et al. (2010). The additional theme of identified as threatening behavior. Two of the original categories (denial of societal heterosexism/transphobia and denial of individual heterosexism) were combined.

Additionally, Platt and Lenzen (2013) sought to confirm and expand on the previous research on the taxonomy of sexual orientation microaggressions in a sample of university students ( $N = 12$ ) who identified as LGBTQ. They wondered if the data from their sample would validate Sue's (2010) typology of sexual orientation microaggressions

and whether there were other themes/types of sexual orientation microaggressions present in the data. Using a focus group methodology, their data confirmed five previously identified types from Sue's (2010) taxonomy (endorsement of heteronormative culture, sinfulness, homophobia, heterosexist language/terminology, and oversexualization) and confirmed two new types (undersexualization and microaggressions as humor).

Shelton and Delgado-Romero (2011) also classified types of sexual minority microaggressions, although, these were in the context of the therapeutic relationship. From a sample of 16 self-identified LGBQ individuals (mean age = 27 years), they reported seven categories: (a) assumption that sexual orientation is the cause of all presenting issues, (b) avoidance and minimizing of sexual orientation, (c) attempts to over identify with LGBQ clients, (d) making stereotypical assumptions about LGBQ clients, (e) expressions of heteronormative bias, (f) assumption that LGBQ individuals need psychotherapeutic treatment, and (g) warnings about the dangers of identifying as LGBQ. Additional to the taxonomy literature of sexual minority microaggressions, several studies have investigated psychological well-being in sexual minority individuals related to the experience of microaggressions.

### **Sexual Minority Microaggressions and Psychological Well-Being**

Just as with racial microaggressions, sexual orientation microaggressions have been associated with psychological outcomes. In the creation of the Homonegative Microaggression Scale, Wright and Wegner (2012), with a sample of 120 adult, community LGB individuals, reported that greater experience of microaggressions predicted lower self-esteem (14.3% of the variance), negative feelings about one's gay identity (13.6% of the variance), and difficulty in the process of developing a gay identity

(19.6% of the variance). LGB persons felt increased negative feelings and greater general difficulty related to their sexual minority identity when they experienced microaggressions. Wright and Wegner also stated that participants who experienced more current and past microaggressions, along with more self-reported impact, felt greater negative feelings and overall difficulty with their sexual identity. The frequency of microaggressions was shown to have a moderating effect on the relationship between impact of microaggressions and self-esteem. More specifically, for those participants who experienced more microaggressions, the relationship between the impact of microaggressions and self-esteem was stronger than it was for those participants who experienced fewer microaggressions.

Sarno and Wright (2013) also investigated how different sexual minority individuals experienced microaggressions, highlighting the experiences of bisexual men and women as compared to gay men and lesbians. In a sample of 120 LGB individuals, with only 14 participants identifying as bisexual, they reported that bisexual participants who experienced microaggressions had more feelings of identify confusion than did lesbians and gay men. Sarno and Wright concluded that these results must be considered exploratory and not definitive because of the small and inadequate sample size of bisexual participants and explained that this could be due to the sampling techniques employed (emailing LGBT organizations and listservs).

Nadal, Wong et al. (2011) used focus groups to explore the process and coping mechanism of LGB individuals ( $N = 26$ ) who reported experiencing microaggressions. They reported that their participants stated they felt distressed immediately after a microaggression occurred. Participants also described an assortment of emotional

reactions including: anger, frustration, sadness, belittlement, and hopelessness. Many participants described negative consequences as a result of experiencing microaggressions: less ability to feel comfortable with their sexual minority identities; less ability to come out of the closet; detrimental relationships with their family members, friends, coworkers, and others; and more mental health problems, including PTSD and negative self-esteem.

As noted earlier, microaggressions were also researched in the context of the therapy session using qualitative methodology (Shelton & Delgado-Romero, 2011). Shelton and Delgado-Romero, in a sample of 16 LGBQ individuals, reported that the presence of these microaggressions had influenced the therapeutic process negatively. The client's participation in session was compromised and the clients reported feeling misunderstood and invalidated. Sexual minorities high occurrence of dissatisfaction with counseling services are considered to be consequences of inadequate and ineffective training approaches (Smith, Shin, & Officer, 2012), specifically due to sexual minority clients' experiences with heterosexist bias and counselors' general lack of awareness of LGB and transgender issues (Liddle, 1997; Palma & Stanley, 2002).

Balsam et al. (2011) investigated microaggressions experienced by people of color who identified as a sexual minority (LGBT-POC) in a three-phase, mixed-method approach. Study One included conducting 12 focus groups and 17 individual interviews ( $N = 112$ ) to determine commonly encountered microaggressions experienced by LGBT-POC. The results from study one led to the initial set of survey questions for the People of Color Microaggression Scale. Study Two included asking 900 LGBT community adults (30% identified as a person of color) to complete the LGBT-POC survey items.

Based on their data, the final measure consisted of three subscales: a) LGBT Racism, racism in the LBG community; b) POC Heterosexism, heterosexism in racial/ethnic communities; and c) LGBT Relationships, problems with relationships and dating. Study Three had 1,217 LGBT participants (267 POC) complete the final measure. The total score was correlated with measures of psychological distress (depression,  $r = .18$ ; perceived stress,  $r = .16$ ). Balsam et al. stated that the experience of microaggressions may be linked to depression and perceived stress. They also stated that different types of microaggressions may appear to have differential associations with depression and perceived stress. For example, the LGBT Relationship Racism subscale was associated with depression ( $r = .16$ ) and perceived stress ( $r = .15$ ). LGBT Relationship Racism was also the only subscale that was associated with internalized heterosexism ( $r = .14$ ). Balsam et al. also suggested that heterosexism in racial/ethnic minority communities may be particularly detrimental to the mental health of LGBT-POC.

Woodard and colleagues (2014) investigated, both together and separately, the role of blatant victimization and LGBQ microaggressions, on psychological distress and the mediating role of self-acceptance. In a sample of LGBQ college students ( $N = 299$ ), LGBQ interpersonal and environmental microaggressions, respectively, were positively correlated with anxiety ( $r = .30$  and  $r = .25$ ) and perceived stress ( $r = .34$  and  $r = .31$ ), and negatively correlated with self-esteem ( $r = -0.20$  and  $r = -0.23$ ) and LGBTQ pride ( $r = -0.13$  and  $r = -0.13$ ). Woodard et al. reported that more exposure to microaggressions was associated with increased psychological distress and that this relationship was mediated by self-acceptance. Additionally, greater exposure to microaggressions was associated with lower acceptance, which in turn was associated with less distress. The total



mediation path for the model was 0.22, indicating that study variables accounted for 22% of the variance in psychology distress.

Finally, as mentioned above, Nadal, Issa et al. (2011) explored the specific types of sexual orientation microaggressions that LGB individuals experience in their everyday lives utilizing focus groups. Several participants stated that their mental health issues (e.g., depression, anxiety, self-destructive behaviors, suicidal ideation, and post-traumatic stress disorder) were a result of experiencing microaggressions.

This review of the literature on sexual orientation microaggressions has shown that research is needed to further the fields' understanding of the experience of sexual orientation microaggressions and their connection with mental health problems. Most studies employed have used qualitative inquiry, and those that are quantitative have had small sample sizes. Additionally, the focus of these studies has been to investigate psychological distress and not psychological well-being. Further investigation highlighting the effects of sexual orientation microaggressions will lend itself to understanding the psychological health of sexual minority individuals. Psychological well-being was selected as the outcome construct within this investigation. The three mediators that are hypothesized to predict psychological well-being are discussed next.

### **Mediators**

Three mediators were identified as important to examine within Hatzenbuehler's (2009) psychological mediation framework: internalized heterosexism, expectations of rejection, and emotion regulation. Evidence is provided that demonstrates their link with psychological outcomes.

#### **Internalized Heterosexism**

As stated previously, heterosexism is the aversion to that which is not heterosexual (Herek, 2004). Internalized heterosexism represents the internalization of those harmful attitudes and assumptions that society holds regarding same-sex relationships (Szymanski, 2006). Minority stress theorists (Hatzenbuehler, 2009; Herek, 2004; Meyer, 2003) assert that discrimination and prejudice are responsible for the formation of internalized heterosexism as well as the problems associated with it. Huebner, Davis, Nemeroff, and Aiken (2002) noted that most theories of sexual minority identity development maintain that sexual minority identities are molded in the cultural context of intense stigma toward same-sex romantic, emotional, and sexual behavior.

This study focused on well-being rather than distress. However, most of the literature investigating internalized heterosexism has focused on its relationship with psychopathology and negative mental health outcomes. This literature review briefly reviewed that association, but focused predominately on the literature investigating internalized heterosexism and well-being.

### **Internalized Heterosexism and Psychological Distress.**

Several studies have investigated the association between internalized heterosexism and aspects of psychological distress. Specifically, depression has been correlated with higher levels of internalized heterosexism in sexual minority women (Herek et al., 1998; Szymanski, Chung, & Balsam, 2001) and men (Herek et al., 1998; Shidlo, 1994; Wagner, Brondolo, & Rabkin, 1996; Zuckerman, 1998). Internalized heterosexism was associated with current mental health, mental health deterioration over the past five years, lifetime suicidal ideation (and ideation related to sexual orientation), suicidal ideation within the last year, and suicidal ideation related to sexual orientation within the last year

(D'Augelli, Grossman, Hershberger, & O'Connell, 2001). Meyer (1995) also found a positive correlation between internalized heterosexism and suicidal ideation and behavior. In addition, four other studies (Frock, 1999; McGregor et al., 2001; Szymanski, 2005; 2006) found that higher levels of internalized heterosexism were associated with higher levels of psychological distress. Higher levels of internalized heterosexism was also associated with engagement in self-harming behaviors such as cutting, burning and skin picking (Bennett & O'Conner, 2002). Finally, Kaysen and colleagues (2014) investigated the relationship between internalized homophobia and psychological distress in a sample of 1,099 young adult sexual minority women (mean age = 20.86) and reported that maladaptive coping mediated the relationship between internalized homophobia and psychological distress.

### **Internalized Heterosexism and Psychological Well-Being.**

Well-being signifies optimal psychological functioning and experience (Ryan & Deci, 2001). Ryff (1989a) articulated her theory of psychological well-being that incorporates six domains: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. The outcome variables reviewed in this literature review relating to internalized heterosexism can be framed within Ryff's (1989a) definition of well-being. For example, older research on internalized heterosexism demonstrated that internalized heterosexism was correlated with a lack of emotional intimacy in lesbian relationships (McGuire, 1995), a fear of intimacy in gay male relationships (Frederick, 1995), feelings of demoralization (Bennett, & O'Conner, 2002; Herek et al., 1998; Meyer, 1995), loneliness (Shidlo, 1994; Szymanski, & Chung, 2001), distrust (Shidlo, 1994), and shame (Allen, & Oleson, 1999).

All of these variables could be considered components within Ryff's psychological well-being domains (e.g. lack of emotional intimacy and fear of intimacy – positive relations with others).

Several studies have established an association between internalized heterosexism and self-esteem. As reported by Szymanski, Kashubeck-West, and Meyer (2008) in their literature review of internalized heterosexism, a negative correlation between internalized heterosexism and self-esteem was experienced by sexual minority men, suggesting that more internalized heterosexism was related to lower self-esteem. Among sexual minority women, several studies also found significant negative correlations between internalized heterosexism and self-esteem.

Rowen and Malcolm (2002) investigated correlates of internalized heterosexism and identity formation in a community sample of 86 gay men in Australia (mean age 34 years old, 82% Caucasian). Participants completed self-report measures assessing: gay identity development; physical self-concept, emotional stability and general self-esteem; sex guilt; internalized heterosexism; and perceptions of societal, familial and religious repression specific to homosexuality. Internalized heterosexism was significantly related to lower levels of self-esteem ( $r = .36$ ), lower levels of self-concepts of physical appearance ( $r = .29$ ), less emotional stability ( $r = .38$ ), gay identity development ( $r = .69$ ), and higher levels of sex guilt ( $r = .49$ ). In the final model, sex-guilt ( $\beta = .32$ ) and internalized homophobia ( $\beta = .44$ ) mediated the relationship between current perceptions of repressive environments and identity formation. The main effect of current perceptions of repressive environments and identity formation accounted for 26% of the variance.

When sex guilt and internalized heterosexism were added to the analysis, it accounted for an additional 31% of the variance.

Szymanski and Carr (2008) examined the roles of gender role conflict and internalized heterosexism in gay and bisexual men's psychological well-being, specifically investigating the mediating roles of self-esteem, social support and avoidant coping in a sample of 210 gay and bisexual men (mean age 36 years; 85% White). Internalized heterosexism was negatively correlated with self-esteem ( $r = -.47$ ) and social support ( $r = -.51$ ), and positively correlated with gender role conflict ( $r = .66$ ) and avoidant coping ( $r = .46$ ). They also found that gender role conflict was related to self-esteem through internalized heterosexism.

Szymanski and Hilton (2013) investigated the relationship between internalized heterosexism and fear of intimacy and relationship quality in a community sample of 88 men in same-sex relationships. Internalized heterosexism was positively correlated with fear of intimacy ( $r = .49$ ) and negatively correlated with relationship quality ( $r = -.43$ ). Additionally, fear of intimacy partially mediated the relationship between internalized heterosexism and relationship quality. The authors reported that the variables in the model accounted for 28% of the variance in relationship quality scores.

Internalized heterosexism has also been shown to relate negatively to one's personal coping resources. Szymanski and Owens (2008) examined the potential moderating and mediating roles of individual coping styles (problem-solving and avoidant coping) in the relationship between internalized heterosexism and lesbian and bisexual women's psychological distress in a community sample of 323 sexual minority women. The two measures of internalized heterosexism (Lesbian Internalized Heterosexism Scale; LIHS;

Szymanski & Chung, 2001, and Internalized Homophobia Scale; American Psychiatric Association, 1980) were associated with problem solving coping ( $r = .31$  and  $r = .26$ , respectively) and avoidant coping ( $r = .37$  and  $r = .34$ , respectively). Internalized heterosexism was related negatively to mental health, regardless of an individual's coping styles. Szymanski and Owens noted that this relationship was partially based on internalized heterosexism's ability to degrade coping skills. As a result, individuals who experience high degrees of internalized heterosexism may be more likely to take part in avoidant coping strategies. This, in turn, results in poorer mental health.

Further, Szymanski and Henrick-Beck (2014) examined experiences of external and internalized heterosexism and sexism and their links to coping styles and psychological distress among 473 sexual minority women. Internalized heterosexism was associated with heterosexist events ( $r = .26$ ), sexist events ( $r = .25$ ), internalized sexism ( $r = .26$ ), suppressive coping ( $r = .34$ ), reactive coping ( $r = .33$ ), and psychological distress ( $r = .31$ ). Suppressive and reacting coping mediated the relationship between internalized heterosexism and psychological distress.

Szymanski and Sung (2013) investigated how culture-specific influences affect the experiences of Asian American LGBTQ individuals in a sample of 143 Asian American LGBTQ individuals who completed self-report measures. Endorsement of Asian values was positively related to internalized heterosexism ( $r = .38$ ) and negatively related to disclosing one's sexual orientation to others ( $r = -.43$ ). Internalized heterosexism mediated the relationship between Asian cultural values and sexual orientation disclosure, with more endorsement of Asian cultural values leading to more internalized heterosexism and a higher reluctance to disclose. The indirect effect of

Asian cultural values on sexual orientation disclosure through internalized heterosexism was  $\beta = -.16$ . The authors also reported that Asian cultural values and internalized heterosexism accounted for 19% of the variance predicting sexual orientation disclosure. When assessing the interaction between Asian cultural values and internalized heterosexism, an additional 2.5% of the variance was accounted for. Additionally, adherence to Asian cultural values was shown to have a moderating effect on the relationship between internalized heterosexism and sexual orientation disclosure. For those participants who reported high adherence to Asian cultural values, the relationship between internalized heterosexism and disclosure of sexual orientation was stronger than it was for those participants who reported low adherence to Asian cultural values.

Two studies were found that specifically investigated internalized heterosexism as a mediator between experiences of discrimination and mental health outcomes. First, in a community sample of 203 sexual minority men, Szymanski and Ikizler (2012) assessed the relationships between heterosexist discrimination, internalized heterosexism, and depression utilizing self-report measures. Heterosexist discrimination was positively associated with internalized heterosexism ( $r = .26$ ). They reported that internalized heterosexism mediated the relationship between heterosexist discrimination and depression. Men who experienced higher levels of heterosexist discrimination may be more likely to report higher levels of internalized heterosexism, which may lead to higher levels of depression.

The second study investigating Hatzenbuehler's (2009) framework, Denton et al. (2014), investigated distal minority stressors (perceived discrimination and prejudice) and their possible association with proximal minority stressors (expectations of rejection,

internalized heterosexism, concealment motivation). Their sample consisted of 564 sexual minority individuals in which 270 were women and 294 were men from 49 U.S. states and the District of Columbia ranging in age from 18–89 years ( $M = 35.39$ ;  $SD = 12.45$ ). To assess proximal minority stressors, participants responded to the extended version of the Lesbian, Gay, and Bisexual Identity Scale (LGBIS; Mohr & Kendra, 2011) which includes three subscales: internalized heterosexism, concealment motivation, and expectations of rejection. Internalized heterosexism was positively correlated with expectations of rejection ( $r = .45$ ), concealment motivation ( $r = .35$ ), and negatively correlated with problem-focused ( $r = -.20$ ) and emotion-focused ( $r = -.23$ ) coping. Overall, experiences of discrimination (distal minority stressors) were significantly related to increased levels of internalized heterosexism, which then predicted lower coping self-efficacy. These two studies lend support for Hatzenbuehler's (2009) psychological mediation framework and highlight the need for additional research focus investigating the potential mechanism between experiences of discrimination and mental health outcomes.

Internalized heterosexism is a form of self-blame that may exacerbate the effects of discrimination on one's mental health. Internalized heterosexism has been associated with several factors related to a sexual minority individual's mental health. Theorists assert that this link is the result of heterosexism and culturally sanctioned views that communicate discriminatory messages, even violent actions, towards those who identify as sexual minorities (Hatzenbuehler, 2009; Meyer, 2003). In general, internalized heterosexism and its relationship with psychological distress has a solid foundation within the literature. There is less evidence investigating internalized heterosexism and



aspects of well-being and even less evidence investigating its mediating role between experiences of discrimination and psychological outcomes.

### **Expectations of Rejection**

Sexual minority individuals may learn to expect rejection and anticipate negative regard and treatment from individuals of the dominant culture (Meyer, 2003). This important, but rarely investigated, proximal minority stress process describes when sexual minority individuals may begin to self-monitor their behavior in different settings and situations (Meyer, 2003). Expectations of rejection have been related to a heightened sense of vigilance (Allport, 1954) and Meyer (1995) asserted that sexual minorities experience prolonged stress due to the need to maintain this vigilance in order to circumvent being maltreated.

Expectation of rejection is identified within both Meyer's (2003) and Hatzenbuehler's (2009) minority stress models. Meyer highlights expectations of rejection as one of three proximal minority stress processes (Appendix A). Hatzenbuehler (2009) further incorporated expectations of rejection in his integrative mediation framework as a proximal stressor (Appendix D). The distinction between these two theorists is that Meyer's (2003) model describes an increase in this proximal stressor as a result of the sexual minorities' status or identity as a sexual minority person, which then leads to mental health concerns. In other words, the person's expectation to experience discrimination is a result of identifying as sexual minority individual. On the other hand, Hatzenbuehler (2009) describes expectations of rejection as a mediator between experiences of stigma-related stressors and mental health outcomes; thus expectations of

rejection is initiated by experiences of discrimination (rather than membership in a stigmatized group) and these experiences ultimately lead to mental health outcomes.

Expectations of rejection may also be linked to a decrease in psychological well-being for members of stigmatized groups because it represents the recognition that one's ingroup is rejected by the majority and that the ingroup's life opportunities are restricted in a way that the opportunities of others are not (Schmitt & Branscombe, 2004). For example, the acknowledgement that one's group is underprivileged has been negatively associated with psychological well-being among women (Klonoff, Landrine, & Campbell, 2000; Schmitt, Branscombe, Kobrynowicz & Owen, 2002), African Americans (Branscombe, Schmitt, & Harvey, 1999; Klonoff & Landrine, 1999), and gay men and lesbians (Herek, Gillis, & Cogan, 1999). This developing body of empirical work validates the idea that expectations of rejection may be detrimental to the psychological well-being of members of disadvantaged groups.

Few studies have investigated expectations of rejection as related to mental health outcomes in sexual minority individuals, especially in the role of mediator. Velez and colleagues (2013) investigated minority stressors (workplace discrimination, expectations of rejection and internalized heterosexism and identity management strategies) and their association with job satisfaction and psychological distress in an adult, community sample of 326 sexual minority employees. Expectations of rejection was positively correlated with workplace discrimination ( $r = .36$ ) and psychological distress ( $r = .23$ ), and negatively correlated with job satisfaction ( $r = -.30$ ). The relationship between expectations of rejection and job satisfaction was mediated through the identity subscale of integrating (subscale on the Sexual Identity- Management Strategies Scale; Button,

2004;  $B = .03$ , 95% CI,  $\beta = .04$ ) with job satisfaction. The author's overall results revealed that expectations of rejection were associated with psychological distress and lower job satisfaction in sexual minority employees.

Feinstein and colleagues (2012) examined potential mechanisms (internalized heterosexism, rejection sensitivity, and childhood gender nonconformity) through which experiences of discrimination may have an effect on depressive and social anxiety symptoms in an adult, community sample of 467 lesbians and gay men (218 lesbians and 249 gay men). Participants completed an online survey about minority stress and mental health. Rejection sensitivity was measured with the modified version of the Gay-Related Rejection Sensitivity Scale (Pachankis, Goldfried, & Ramrattan, 2008) in which participants assessed 12 situations and indicated how concerned or anxious they would be if the situation occurred because of their sexual orientation and the likelihood that it occurred because of their sexual orientation. Rejection sensitivity was positively correlated with experiences of discrimination ( $r = .54$ ), childhood gender nonconformity ( $r = .20$ ), internalized heterosexism ( $r = .23$ ), depressive symptoms ( $r = .36$ ), and social anxiety symptoms ( $r = .28$ ). Specifically, the authors investigated the effect of experiences of discrimination on depressive and social anxiety symptoms, with childhood gender nonconformity as an antecedent and internalized heterosexism and rejection sensitivity as mediators between experiences of discrimination and mental health outcomes. Greater rejection sensitivity and internalized heterosexism were significantly associated with greater depressive and social anxiety symptoms, accounting for 28% of the variance in depressive symptoms and 11% of the variance in social anxiety

symptoms. This finding lends support to the mediating role of rejection sensitivity in the link between experiences of discrimination and mental health outcomes.

As mentioned previously, Denton and colleagues (2014) investigated Hatzenbuehler's (2009) mediation framework, specifically highlighting the mediating roles of expectations of rejection, internalized heterosexism, and concealment motivation. In their sample of 564 sexual minority individuals, expectations of rejection was positively correlated with physical symptom severity ( $r = .22$ ), distal minority stressors ( $r = .29$ ), internalized heterosexism ( $r = .45$ ), concealment motivation ( $r = .40$ ), and negatively correlated with problem-focused ( $r = -.31$ ) and emotion-focused ( $r = -.31$ ) coping. Denton et al. reported that distal minority stressors were significantly associated with higher levels of expectations of rejection, which, in turn, predicted significantly lower coping self-efficacy.

One final study by Liao and colleagues (in press) investigated three mediators (expectations of rejection, anger rumination, and self-compassion) in the perceived discrimination-distress link proposed by Hatzenbuehler (2009). In a community sample of 265 adult sexual minority individuals, expectations of rejection was positively correlated with perceived discrimination ( $r = .38$ ), anger rumination ( $r = .29$ ), and psychological distress ( $r = .34$ ) and negatively correlated with self-compassion ( $r = -.28$ ). The data analysis revealed expectations of rejection mediated the relationship between perceived discrimination and anger rumination and self-compassion, which in turn, predicted psychological distress. These few studies have provided ample evidence of the mediating role of expectations of rejection when investigating perceived experiences of discrimination and psychological well-being.

Within this study, expectations of rejection and stigma consciousness are considered similar constructs. Previous researchers have also considered them similar concepts (e.g. Velez et al, 2013). Stigma consciousness has been defined as the expectation that individuals hold regarding future experiences of discrimination (Pinel, 1999). Based upon this, stigma consciousness was incorporated as a means to understand expectations of rejection. The research regarding stigma consciousness is discussed next.

### **Stigma Consciousness.**

Stigma consciousness is the degree to which individuals are self-conscious about being a member of a stereotyped group and their anticipation that they will be stereotyped by others (Pinel, 1999). Pinel theorized that stigma consciousness is an individual variable that indicates how greatly members of stigmatized groups (groups who are targets of stereotypes) expect to be categorized based on these stereotypes. Individuals differ in the magnitude to which they expect to be stereotyped, and these variances in stigma consciousness may have cognitive and behavioral consequences that influence an individual's experience of stereotyping, prejudice, and discrimination (Pinel, 1999). Pinel does not suggest that all members of stigmatized groups will experience the same level of stigma consciousness, but that stigma consciousness indicates the expectation that one will be stereotyped, regardless of behavior or the situation (Pinel, 1999). Pinel (1999) theoretically explained that one's earlier experiences with oppression and typecasting may be a strong predictor of the degree to which one expects similar experiences of discrimination in the future. According to stigma consciousness theory (Pinel, 1999), the effort in preserving one's self-concept is the principal reason for increased levels of stress in stigmatized individuals (Cochran, Mays, & Sullivan, 2003; Meyer, 2003; Wright &

Perry, 2006). The effort to maintain one's self-concept may create additional stress as it requires the individual to behave and think in ways that may not promote psychological well-being.

Stigma consciousness is similar to stereotype threat (Steele, 1997; Steele & Aronson, 1995), but the two constructs are distinct. Stereotype threat represents the feeling that occurs within members of stigmatized groups when they experience situations that induce the fear of confirming the stereotype about their group. Thus, stereotype threat represents a concern about an individual's own behavior (e.g., "Am I going to confirm the stereotype?"); stigma consciousness reflects an individual's expectation that he or she will be stereotyped, regardless of his or her actual behavior (Pinel, 1999). Gender and racial stigma consciousness have received the most empirical investigation within the literature, with sexual orientation stigma consciousness receiving much less attention.

### **Stigma Consciousness and Psychological Well-Being.**

Wang, Stroebe, and Dovidio (2012) investigated the effect of stigma consciousness on women's cognitive, emotional, and behavioral responses to gender discrimination. Study One included 96 adult women (75 reported as White) from a university-sponsored online subject pool. Participants were asked to imagine applying for a desirable job in their field which they would fail to receive because of blatant or ambiguous prejudice from a male interviewer. Self-reported measures were completed after exposure, including measures of anger and depressed affect, perceived prejudice item, two collection action tendency items ("I would like to encourage other women to protest against the situation of women on the job market" and "I would sign a petition

with other women to increase the awareness of the situation women face on the job market”), and the Stigma Consciousness Questionnaire (Pinel, 1999). Stigma consciousness was associated with perceived prejudice ( $r = .60$ ), anger ( $r = .37$ ), and collective action tendencies ( $r = .47$ ) in the ambiguous prejudice condition. These effects were much weaker in the blatant prejudice condition. Additionally, stigma consciousness was more strongly related to anger ( $r = .37$ ) than depression ( $r = .15$ ) in the ambiguous prejudice condition. Women high in stigma consciousness were more likely to qualify their failure to receive the job to prejudice, especially when the situation was vague.

Additionally, Pinel and Paulin (2005) employed a longitudinal study investigating stigmatization in the workplace in a sample of 91 female, nonstudent staff workers employed at a large university in the northeastern United States. During the first phase of the study, staff workers completed several measures including: stigma consciousness (two versions: one for staff workers and one for women), feelings of being respected, intent to leave their current job, supervisory support, and how much they like themselves and find themselves competent. During the second phase of the study, researchers contacted willing participants by phone ( $N = 34$ ) two years later to see if staff workers had changed jobs since the first phase of the study. Feeling respected was correlated with stigma consciousness for women ( $r = -.45$ ) and stigma consciousness for staff workers ( $r = -.59$ ). Women high in stigma consciousness predicted their intent to leave an employment situation and a feeling of being disrespected mediated this effect. Further, these intentions to leave converted into actual behavior.

In addition to gender, racial minorities may be negatively affected by stigma consciousness. Wilton, Sanchez, and Garcia (2013) examined the role of stigma

consciousness in conjunction with ascribed racial identity and minority racial group, in perceptions of threat, belonging, and identification for biracial people of white and minority ancestry. The community sample consisted of 78 individuals who ranged between 18 and 55 years old. Initial assessment of participants included obtaining stigma consciousness levels and racial identity. Daily reports of participants' sociocultural context (i.e., the presence of minorities and whites), social identity threats, belonging, and racial identification were collected. Wilton et al. reported that minority/white biracial individuals who had higher levels of stigma consciousness were inclined to feel less belonging around whites, while those lower in stigma consciousness did not show effects related to belonging.

Using daily diaries, Son and Shelton (2011) investigated the intrapersonal consequences that Asian Americans may experience as a result of their concerns to appear highly intelligent. Son and Shelton reported that Asian-American college students ( $N = 47$ ) who lived with European-American students reported higher levels of stigma consciousness and this was associated with higher levels of anxiety ( $r = .45$ ), and concerns about being viewed as intelligent ( $r = .38$ ). Concerns about appearing intelligent partially mediated the associations between stigma consciousness and the outcome variables of anxiety and perceived need to change to fit in.

Finally, two studies investigated whether stigma consciousness affected academic performance negatively in historically marginalized populations. Brown and Lee (2005), in a sample of 128 undergraduate students (57 White), reported that stigma consciousness was correlated negatively with academic achievement in college for academically stigmatized (Black and Hispanic) students ( $r = -.30$  and  $r = -.24$ , respectively), but not for



academically non-stigmatized (White and Asian) students ( $r = .05$  and  $r = .19$ ). Stigmatized students higher in stigma consciousness reported lower GPAs than stigmatized students lower in stigma consciousness. The initial small sample size and splitting the participants into smaller groupings requires that these results be viewed with caution.

Pinel, Warner, and Chua (2005) obtained similar results in a sample of 44 stigmatized (African American and Latino/Latina) and 79 nonstigmatized (White and Asian American) students who completed measures of stigma consciousness, GPA, disengagement from academics, and self-esteem. They found that increases in stigma consciousness predicted lower GPAs ( $\beta = -.52$ ) and greater disengagement ( $\beta = .32$ ) in racially stigmatized males. For racially stigmatized females, increases in stigma consciousness were associated with disengagement from school ( $\beta = -.40$ ) and lower self-esteem ( $\beta = -.41$ ). Similar to the Brown and Lee (2005) study, these results must be interpreted with caution because of the small sample sizes.

Stigma consciousness experienced by sexual minority individuals has been associated with negative psychological outcomes in several studies. For example, 66 gay men and lesbians (mean age=34) were recruited at a gay pride festival in California to assess the construct and discriminant validity of the Stigma Consciousness Scale for Gay Men and Lesbians (Pinel, 1999). The results indicated that lesbians and gay men high in stigma consciousness were more likely to focus on themselves ( $r = .33$ ) and to worry about how others perceived them ( $r = .33$ ), compared to those low in stigma consciousness.

Lewis et al. (2003) examined the relationship of gay-related stress and life events to depressive symptoms and included other predictors of depressive symptoms (internalized homophobia, stigma consciousness, and openness about sexual orientation). In a sample of 204 LGB individuals (110 men), stigma consciousness was correlated with internalized homophobia ( $r = .25$ ), openness ( $r = -.26$ ), and depressive symptoms ( $r = .27$ ). Lewis et al. also reported, in a simultaneous multiple regression analysis, that stigma consciousness, internalized homophobia, openness, and gay-related stress were significantly related with depressive symptoms, accounting for 14% of the variance score. When the variables were inspected individually, gay-related stress ( $\beta = .21$ ) and stigma consciousness ( $\beta = .23$ ) explained unique variance in depressive symptoms. Participants who reported higher levels of stigma consciousness and more severe gay-related stress reported more depressive symptoms.

Lewis, Derlega, Clarke, and Kuang (2006), in a sample of 105 lesbians (mean age = 36 years, 77% Caucasian), examined the moderating role of social constraints or difficulty lesbians experience in talking with others about sexual orientation-related issues. Participants completed measures of stigma consciousness, social constraints, intrusive thoughts, internalized heterosexism, lesbian related-stress, negative mood, and a physical symptom checklist. Stigma consciousness was related positively with intrusive thoughts, lesbian-related stress, negative mood, and self-reports of physical symptoms, but not internalized heterosexism. Higher scores on the stigma consciousness and social constraint variables were associated with higher self-reports of physical symptoms, higher scores on internalized heterosexism, and higher levels of intrusive thoughts about lesbian-related issues. The main effects of stigma consciousness and social constraints

were statistically significant: physical symptoms (17% of the variance), internalized homophobia (10% of the variance), and intrusive thoughts (25% of the variance). When the interaction between social constraints and stigma consciousness were examined together, it accounted for additional variance: physical symptoms, 5%; internalized homophobia, 4%; and intrusive thoughts, 4%.

Additionally, Kelleher (2009) explored minority stress and psychological distress in a sample of 301 sexual minority youth (16-24 years) in Ireland measuring three aspects of minority stress (sexual identity distress, stigma consciousness, and heterosexist experiences). Results indicated that sexual minority related stigma negatively affected the well-being of sexual minority youth. Stigma consciousness was associated with psychological distress (anxiety, depression, and suicidal ideation;  $r = .42$ ), heterosexist experiences ( $r = .56$ ), and sexual identity distress ( $r = .34$ ). The three minority stressors significantly predicted symptoms of psychological distress, accounting for 31.5% of the variance.

Berghe et al. (2010) examined the impact of stress related to LGB youth in a sample of 743 youth (less than 26 years old) in Belgium. Measures of stigma consciousness, internalized heterosexism, social support, and symptoms of depression were completed by the participants. Stigma consciousness was associated with internalized heterosexism ( $r = .34$ ), unsupportive social interactions ( $r = .28$ ), confident support ( $r = -.21$ ), and depressive symptoms ( $r = .31$ ). Stigma consciousness and internalized heterosexism were found to be related to the mental health of LGB youth. Higher levels of depressive symptoms were associated with higher levels of internalized

heterosexism, stigma consciousness, and LGB-specific unsupportive social interactions, and with lower levels of LGB-specific confidant support.

Finally, Carvalho, Lewis, Derlega, Winstead, and Viggiano (2011) examined the relationships among internalized heterosexism, stigma consciousness, and openness to self-reported intimate partner violence (IPV) victimization and perpetration in a sample of 138 LG participants (24.2% endorsed being victims of same-sex IPV; and 9.4% reported that they had been perpetrators). Participants who reported they had experienced IPV victimization were found to have higher levels of stigma consciousness and were more open about their sexual orientation. Perpetrators of IPV also reported higher levels of stigma consciousness. Individuals higher in stigma consciousness were also almost twice as likely to perpetrate IPV; those who experienced greater expectations of being rejected based upon their sexual orientation were twice as likely to report being perpetrators of IPV.

When taken together, these studies indicate that individuals who expect others to apply stereotypes to them experienced more distress and less well-being. Though research hasn't directly investigated the mediating role of stigma consciousness, Hatzenbuehler's (2009) psychological mediation framework and Pinel's (1999) descriptions of stigma consciousness may be used to theorize the mediational role that stigma consciousness may play in the relationship between experiences of discrimination and mental health outcomes. Additionally, investigations of the associations between aspects of psychological well-being and stigma consciousness are lacking within the literature. Highlighting the mediating role of stigma consciousness related to experiences of discrimination and psychological well-being begins to fill this gap within the literature.

## **Emotion Regulation**

Emotion regulation is defined as "the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions" (Gross, 1998b, p. 275). According to Gross (1998b), the leading researcher and theorist in the field, emotion regulation represents the shaping of which emotions one experiences, when one experiences them, and how one expresses these emotions.

Gross (1998a) proposed an emotion framework, the modal model of emotion (Appendix E), that specifies the sequence of processes involved in emotion generation (Barrett, Ochsner, & Gross, 2007). The modal model of emotion identifies a process in which emotion moves along a continuum. According to the modal model, "emotions involve person-situation transactions that compel attention, have meaning to an individual in light of currently active goals, and give rise to coordinated yet flexible multisystem responses that modify the ongoing person-situation transaction in crucial ways" (Gross, 2013, p. 5). Each step in the emotion-generative process described in the modal model is a potential target for regulation.

Based upon the modal model of emotion (Gross, 1998a), Gross (1998b) proposed the process model of emotion regulation (Appendix F). The process model of emotion regulation (Gross, 1998b) highlights five points at which individuals can regulate their emotions: situation selection, situation modification, attentional deployment, cognitive change, and response modulation (Gross, 1998b). These categories are differentiated by the moment in the emotion-generative process at which they have the greatest impact. Movement from situation selection to response modulation represents movement through

time. For example, a particular situation is chosen, modified, attended to, appraised, and generates a specific set of emotional responses. However, as highlighted in the modal model of emotion, emotion generation is a continuous process, ranging beyond one emotional episode. This dynamic feature of emotion and emotion regulation is indicated by the cyclical nature of emotional responses that lead back to the situation (Gross, 1998b).

Within the five categories highlighted in the process model of emotion regulation, there are specific strategies to regulate one's emotions. Rumination, cognitive reappraisal, and expressive suppression are types of emotion regulation strategies. Rumination involves repetitively and passively focusing on symptoms of distress that one is experiencing and the possible consequences associated with the distress (Nolen-Hoeksema et al., 2008). Cognitive reappraisal involves interrupting thoughts related to an emotional experience and these interruptions affect the impact of those thoughts (Lazarus & Alfert, 1964). Expressive suppression involves the restriction of emotional expression (Gross, 1998a). These three emotion regulation strategies have been selected to investigate as mediators within the stress – well-being relationship. These strategies were selected based upon their ability to be targeted for interventions and previous research. If specific deficits within emotion regulation strategies can be identified, then specific behavioral, cognitive, and emotional interventions may be employed to teach increased emotion regulation ability. Hatzenbuehler (2009) stated that maladaptive emotion regulation is one possible psychological process that is set off by exposure to chronic stigma-related stress and can be directly targeted for intervention.

### **Emotion Regulation and Psychological Well-Being.**

Emotion regulation theory has been hypothesized to affect mental health outcomes (e.g., Gross, 1998b, Hatzenbuehler, 2009). In general, a deficit in one's ability to regulate his or her emotions has been linked with adverse psychological outcomes (e.g., Aldao et al., 2010; Berking & Wupperman, 2012; Garland et al., 2010; Hatzenbuehler, Nolen-Hoeksema, & Dovidio, 2009; Hatzenbuehler et al., 2008; Hofmann, Sawyer, Fang, & Asnaani, 2012). Specifically, Berking and Wupperman (2012), in their analysis of the emotion regulation literature, reported that deficits in emotion regulation seem to be applicable to the development, continuation, and treatment of numerous forms of psychopathology. They reported on evidence that associated emotion regulation deficits with depression, borderline personality disorder, substance-use disorders, eating disorders, somatoform disorders, and a variety of other psychological symptoms.

Studies suggest that chronic life stressors may relate to individuals' ability to effectively regulate their emotions, including increased sensitivity to anger (Davies & Cummings, 1998), difficulty understanding negative affect (Southam-Gerow & Kendall, 2000), and inappropriate expression of emotions (Camras et al., 1988). Emotion regulation deficits have been recognized as risk factors for depression (e.g., Ehring, Tuschen-Caffier, Schnulle, Fischer, & Gross, 2010; Nolen-Hoeksema et al., 2008; Rottenberg, Kasch, Gross, & Gotlib, 2002), anxiety disorders (e.g., Campbell-Sills, Barlow, Brown, & Hofmann, 2006; Mennin, Heimberg, Turk, & Fresco, 2005), and bipolar disorders (Gruber, Harvey, & Gross, 2012).

Although there may be other possible variables occurring within the relationship paths hypothesized in the model relating to emotion regulation as a mediator, such as the emotional experience preceding a person's ability to regulate his or her emotions, this research specifically investigated the mediators suggested by Hatzenbuehler's (2009) psychological mediation framework. Future studies may investigate other variables within this model to see how they relate to the stigma related stress – psychopathology relationship, specifically highlighting the emotion generative and regulation processes.

### **Rumination.**

Rumination is defined as a “mode of responding to distress that involves repetitively and passively focusing on symptoms of distress and on the possible causes and consequences of these symptoms (Nolen-Hoeksema et al., 2008, p.400). Rumination is a technique of coping with negative mood that involves self-focused attention (Lyubomirsky & Nolen-Hoeksema, 1993). This emotion regulation strategy is located within the response modulation category of the process model of emotion regulation (Gross, 1998b).

Rumination has been identified as a disadvantageous response to negative affect that has been associated with various emotional disorders (Joorman & Siemer, 2013). A growing body of research has associated rumination with mental health diagnoses such as depression (e.g. Nolen-Hoeksema et al., 2008; Raes, Smets, Nelis, & Schoofs, 2012) and bipolar disorder (e.g., Gruber, Eidelman, Johnson, Smith, & Harvey, 2011; Johnson, McKenzie, & McCurrich, 2008). Nolen-Hoeksema et al. (2008), in their review of the literature, reported that depressive rumination has been shown to intensify and lengthen depressed mood. In a clinical sample of adult, depressed patients, Watkins and Moulds



(2005) reported that rumination was also found to lead to extended negative mood, increases in negative cognitions, and decreases in effective problem solving.

Additionally, Joorman, Dkane, and Gotlib (2006) found that participants diagnosed with major depressive disorder exhibited higher brooding scores on the Ruminative Response Scale (Treyner, Gonzalez, & Nolen-Hoeksema, 2003) than did all other groups in the study (formerly depressed, socially anxious, and healthy control participants).

Three studies were discovered that explicitly investigated emotion regulation as a mediator within the sexual minority population, with two specifically focusing on adolescents and rumination (Hatzenbuehler, Dovidio et al., 2009; Hatzenbuehler et al., 2008; Hatzenbuehler, Nolen-Hoeksema et al., 2009). Hatzenbuehler et al. (2008), in a longitudinal study, investigated whether emotion regulation could explain the disparities in anxiety and depression symptomology between sexual minority and heterosexual adolescents. In a middle school community sample of 1,071 ethnically diverse adolescents (68% non-Hispanic Black and Hispanic Latino), adolescents who self-identified as having same-sex attraction were found to have increased difficulties in emotion regulation (i.e., rumination and poor emotional awareness) compared to their heterosexual counterparts. Rumination was correlated positively with depression ( $r = .29$ ), anxiety ( $r = .69$ ), and emotional awareness ( $r = .59$ ). Emotion regulation deficits mediated the relationship between same-sex attraction and depression symptoms (accounted for 57% of the variance) and anxiety symptoms (accounted for 67% of the variance). The sample size of the same-sex attracted group was relatively small ( $N = 29$ ), and though significant effects were detected, the sample size restricts generalizability.

Hatzenbuehler et al. discussed the small sample size and emphasized the young age of the participants (grades 6-8), which hasn't been studied prior.

Hatzenbuehler, Dovidio et al. (2009) examined whether anti-gay attitudes would predict poorer emotion regulation and greater psychological distress in 31 LGB adolescents. Participants completed implicit and explicit attitude measures and participated in an experience examining stigma-related stressors, emotion regulation strategies, and mood over the course of ten days. LGB participants with greater unspoken anti-gay beliefs engaged in considerable more rumination and suppression and reported more psychological distress than participants with less unspoken anti-gay beliefs ( $\beta = 1.11$ ). Internalized heterosexism was also predictive of rumination ( $\beta = .44$ ). Rumination was found to fully mediate the relation between unspoken prejudicial attitudes and psychological distress, and suppression was a marginally significant mediator.

Szymanski, Dunn and Ikizler (2014) examined the possible mediating roles of rumination and maladaptive coping in the relationships between external and internalized heterosexism and sexism and psychological distress in a sample of 761 sexual minority women. Rumination was positively associated with general stress ( $r = .61$ ), external heterosexism ( $r = .31$ ), external sexism ( $r = .36$ ), internalized heterosexism ( $r = .34$ ), internalized sexism ( $r = .19$ ), coping via detachment ( $r = .56$ ), coping via internalization ( $r = .54$ ), and psychological distress ( $r = .71$ ). The authors reported that rumination, coping with multiple minority stressors through detachment, and coping with multiple minority stressors through internalization mediated the external sexism– psychological distress link, the internalized heterosexism–psychological distress link, and the

internalized sexism–psychological distress link. The variables accounted for 62% of the variance in psychological distress scores.

Finally, Hatzenbuehler, Nolen-Hoeksema et al. (2009) investigated emotion regulation strategies in the stigma-distress association in a student and community sample of LGB and African American participants ( $N = 31$  and  $N = 19$ , respectively mean age 21 years old). The study examined whether LGB individuals and African Americans rely on different emotion regulation strategies following exposure to discrimination and whether these strategies predict future psychological distress. Participants reported on events of discrimination, responses to those events, and psychological distress for 10 consecutive days. There were no differences between LGB and AA participants in rumination and suppression following stigma-related stressors. Rumination and suppression occurred more on days when participants reported stigma-related stressors than on days with no stressors reported. Higher levels of both rumination ( $\beta = .86$ ) and suppression ( $\beta = .31$ ) predicted psychological distress over the 10-day period. Rumination, but not suppression, mediated the relationship between stigma-related stress and psychological distress.

Though rumination has been long studied in the literature, it isn't only until recently that it's been investigated within the sexual minority community, and currently two of the three used adolescent sexual minority youth samples. Further, investigation related to rumination usually includes a focus on psychological distress. Exploration is needed to examine the relationships between rumination and well-being, specifically in an adult sexual minority sample.

### **Cognitive Reappraisal.**

Cognitive reappraisal is a method of cognitive change that includes interrupting a possible emotion-eliciting situation in a way that modifies its emotional impact (Lazarus & Alfert, 1964). This emotion regulation strategy is located within the cognitive change category of the process model of emotion regulation (Gross, 1998b). This strategy has been reported as adaptive because it seems to enable individuals to decrease negative feelings without the physiological expenses that are related to other forms of emotion regulation (Gross & John, 2003).

Consistently, individuals who use cognitive reappraisal as an emotion regulation strategy have reported greater positive well-being and fewer symptoms of psychopathology (e.g., Gross & John, 2003; John & Gross, 2004; Moore, Zoellner, & Mollenholt, 2008). Gross and John (2003) investigated individual differences in two emotion regulation strategies (reappraisal and suppression) in a sample of 936 undergraduate students (41% Asian American). Individuals who routinely used reappraisal demonstrated fewer symptoms of depression and were more satisfied with their lives, more optimistic, and had better self-esteem. Cognitive reappraisal was associated with greater use of mood repair ( $\beta = .36$ ) and positive reinterpretation ( $\beta = .43$ ). Cognitive reappraisal was also associated with Ryff's (1989a) domains of well-being in this study. Individuals who used cognitive reappraisals demonstrated higher levels of environmental mastery, personal growth, self-acceptance, and a clearer purpose in life. Environmental mastery was the largest of these effects; a participants' ability to reappraise his or her emotions appeared connected to a more global sense that he or she

has more control over their environments. Reappraisers were also observed scoring higher on positive relations with others.

Additionally, Mauss, Cook, Cheng, and Gross (2007) investigated individual differences in the use of reappraisal associated with experimental and physiological responses to anger-inducing situations in a sample of 111 female, undergraduate students. Participants were made angry in the laboratory while emotion experience and cardiovascular responses were measured. Results comparing individuals who reappraise less often than others (low reappraisers versus high reappraisers) found that high reappraisers showed a relatively adaptive cardiovascular response, while low reappraisers showed a relatively maladaptive cardiovascular threat response. High reappraisers also reported less anger, less negative emotion, and more positive emotion. The authors stated that these findings indicate that reappraisers are more successful at decreasing negative emotions, even in the context of anger, than low reappraisers.

In a community sample of 78 females, Troy, Wilhelm, Shallcross, and Mauss (2010) investigated their participants' cognitive reappraisal ability and the relationship between stress and depressive symptoms. Cognitive reappraisal ability predicted depressive symptoms only when the interaction with cumulative stress was considered. Results indicated that when participants experienced low levels of stress, cognitive reappraisal ability was not related to depressive symptoms ( $\beta = .17$ ). When participants experienced high levels of stress, women with high cognitive reappraisal ability exhibited less depressive symptoms than those with low cognitive reappraisal ability ( $\beta = -.39$ ). These results indicate that cognitive reappraisal ability may be an important moderator between stress and depressive symptoms.

In the context of oppression, Perez and Soto (2011) investigated the relationship between reappraisal and psychological functioning in a sample of 287 Puerto Rican and Latino/a undergraduate students (mean age = 19 years) in the United States ethnic groups. The context of oppression (as measured by ethnic group membership and oppressed minority ideology) moderated the relationship between reappraisal and psychological functioning (depression and satisfaction with life). Reappraisal was negatively related to psychological functioning for Latino Americans high on oppressed minority ideology. Also for Latino Americans, reappraisal was not a significant predictor of depressed mood until the interaction between reappraisal and oppressed minority ideology was investigated. The interaction accounted for an additional 19% of the variance. For Puerto Ricans, despite their oppressed minority ideology, the relationship between reappraisal and psychological functioning remained positive. Additionally, reappraisal was a significant predictor of depressed mood, but neither oppressed minority ideology nor the interaction of reappraisal and oppressed minority ideology added significant variance.

Additionally, Soto et al. (2012) extended Perez and Soto's (2011) work by investigating whether the reappraisal–psychological functioning association was moderated by the numerical representation of Latinos within the environment and by personal perceptions of discrimination among 425 Latino college students throughout the United States. Cognitive reappraisal was associated with self-esteem ( $r = .37$ ), life satisfaction ( $r = .36$ ), depressive symptoms ( $r = -.24$ ), anxiety symptoms ( $r = -.20$ ), and perceived discrimination ( $r = -.24$ ). Greater use of reappraisal was related to better psychological functioning for Latinos in high Latino counties, but not for Latinos in low-Latino counties who perceived greater discrimination. Results indicated that contextual

factors may alter the adaptive functions of emotion regulation strategies of those who experience oppression.

Though the two previous studies mentioned above examined reappraisal in the context of oppression, there appears to be a deficit within the literature investigating oppression experienced by the sexual minority population relating to cognitive reappraisal. Research has suggested that cognitive reappraisal is an adaptive emotion regulation strategy. Little research has focused on this strategy as a mediator between the experience of stress, specifically stigma-related stress and psychological well-being. In conjunction with rumination and cognitive reappraisal, expression suppression was investigated as a mediator within the stigma-related stress and psychological well-being relationship.

### **Suppression.**

Suppression is a form of response modulation that includes constraining ongoing emotion-expressive behavior (Gross, 1998a). Expressive suppression includes behaviorally restricting the expression of emotion. People who suppress their emotions will limit their facial expressions and attempt to withhold evidence that they are experiencing an emotion. Expressive suppression is located within the response modulation category of the process model. Emotional suppression has been associated with negative social consequences, such as either maintaining and enhancing healthy relationships, or becoming a source of resentment and hostility (Butler et al., 2003; Gross & John, 2003; Harker & Keltner, 2001). Studies with adults have indicated that this strategy of emotion regulation effectively decreases behavioral signs of emotion (emotion expression), but with noteworthy consequences, including having little effect on the

experience of negative emotion and intensifying the cardiovascular costs (Gross, 1998a; Gross & Levenson, 1997). Expressive suppression has been associated with PTSD, anxiety, and depression symptoms with rumination partially mediating this association (Gross & John, 2003; Moore et al., 2008). Suppression was also found to be ineffective for decreasing negative emotions (Ehring et al., 2010).

Gross and John (2003) investigated individual differences in two emotion regulation strategies (reappraisal and suppression) in a sample of 936 undergraduate students. They reported that individuals who typically suppress reported more depressive symptoms, felt less satisfied with life, had lower self-esteem, and were less optimistic. Suppression was related to inauthenticity ( $\beta = .47$ ), venting of emotions ( $\beta = -.43$ ), and emotional attention ( $\beta = -.41$ ). Participants who suppressed more also scored lower on each of the Ryff (1989a) well-being scales.

Srivastava, Tamir, McGonigal, John, and Gross (2009) examined expressive suppression and how it affects social functioning through the transition to college in a sample of 278 university students (58% female; mean age = 18 years). Suppression was correlated negatively with support from new friends ( $r = -.33$ ), closeness to others ( $r = -.46$ ), and social satisfaction ( $r = -.39$ ). The use of suppression increased significantly from the summer prior to college to the early fall semester. As participants left their familiar social networks and began interacting in new environments, they increased the amount in which they regulated their behavioral expression of their emotions.

Specifically related to the investigation of suppression within cultural contexts, consequences of using suppression may be moderated by cultural values. Butler, Lee, and Gross (2007) examined cultural perspectives and emotional suppression in 166 female,



university participants. Suppression was negatively correlated with European values ( $r = -.23$ ). For Americans holding Western-European values, habitual suppression was associated with self-protective goals and negative emotion, and reduced interpersonal responsiveness, negative partner-perceptions, and hostile behavior during an experimentally induced situation. On the contrary, these effects were reduced when individuals espoused more Asian values. The authors reported that these findings indicated that many of suppression's negative social impacts may be moderated by cultural values.

Additionally and similarly, Soto, Perez, Kim, Lee, and Minnick (2011) investigated whether the suppression–health relationship was dependent on cultural context, given the different cultural norms surrounding emotional expression. They examined the use of expressive suppression and psychological functioning among 71 European American students and 100 Chinese students from Hong Kong. Participants reported on expressive suppression, life satisfaction, and depressed mood. There was a positive correlation between suppression and depressed mood ( $r = .34$ ) and a negative correlation between suppression and life satisfaction ( $r = -.34$ ) for European American participants. This was not the case with the Hong Kong Chinese students; suppression and depressed mood ( $r = .00$ ) and suppression and life satisfaction ( $r = -.01$ ) were not significantly correlated. Culture was shown to have a moderating effect on the relationship between suppression and depressed mood. For Hong Kong Chinese students, the relationship between suppression and depression mood was weaker than it was for European American students. Suppression was associated with depressed mood for European Americans, but not for Chinese participants.

Finally, as mentioned above, Hatzenbuehler, Nolen-Hoeksema et al. (2009) examined suppression in the stigma-distress relationship in a sample of LGB and African American student and community members. Suppression did not mediate the relationship between stigma-related stressors and psychological distress ( $\alpha = .85$ ). Stigma-related stressors were measured by eight total items compiled together from three locations: Everyday Discrimination Scale (Williams, Yu, Jackson, & Anderson, 1997); felt stigma (Herek & Garnets, 2007); and sensitivity to status-based rejection (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002). Reported coefficient alpha for the eight items was .85. More research is needed to understand if suppression truly does not mediate the stigma-related stress/psychological well-being association. This study will utilize a larger sample, different measures, and will focus on well-being versus distress. This will provide more information to further understanding the relationship suppression has to those who experience discrimination.

As with cognitive reappraisal and rumination, little evidence is available that investigates suppression and well-being within a sample of sexual minority individuals, and as a mediator between experiences of discrimination and well-being. These three emotion regulation strategies have all been linked with mental health outcomes and this is supported by emotion regulation theory (e.g., Gross, 1998b) and minority stress theorists (Hatzenbuehler, 2009; Meyer, 2003). With all of the presented evidence, a proposed mediation model was identified to explain three possible processes that may occur within the stigma-related stress/psychological well-being relationship.

## Psychological Well-Being

The concept of well-being denotes optimal psychological functioning and experience (Ryan & Deci, 2001). Ryan and Deci explained two views of well-being, including the hedonism and eudemonism perspective. The hedonism perspective reflects the view that well-being consists of pleasure or happiness (Kahneman, 1999). The eudemonism perspective states that well-being consists of more than just happiness, conveying the belief that well-being consists of the actualization of human potentials (Waterman, 1993). Although these two perspectives differ in how they conceptualize and define well-being, evidence from a number of researchers have reported that well-being is probably best conceptualized as a multidimensional phenomenon that includes aspects of both the hedonic and eudaimonic perspectives of well-being (Ryan & Deci, 2001). The hedonic view of well-being includes constructs such as subjective happiness and satisfaction with life, while the eudaimonic view of well-being includes Ryff's (1989a) six domains of psychological functioning (Ryan & Deci, 2000). Psychological well-being is not the opposite of psychological distress. Though similar variables predict both, psychological well-being and psychological distress are independent of each other and differ according to the external and internal environmental challenges people face (Winefield, Gill, Taylor, & Pilkington, 2013). For example, Winefield et al. (2013) reported that variables positively associated with psychological well-being were negatively associated with psychological distress and vice versa. This denotes similarities between the constructs, but does not signify that psychological well-being and psychological distress are opposite ends of a continuum. Psychological well-being is conceptualized and assessed by incorporating three constructs of well-being. These

include Ryff's (1989a) conceptualization of psychological well-being, satisfaction with life (Diener, Emmons, Larsen, & Griffin, 1985), and happiness ((Lyubomirsky & Lepper, 1999).

### **Ryff's Psychological Well-Being Framework**

Prior to Ryff (1989a) articulating the basic structure of psychological well-being, discussions in the literature centered on the distinction between positive and negative affect and life satisfaction to define well-being (Andrews & Withey, 1976; Bradburn, 1969; Bryant & Veroff, 1982; Diener & Emmons, 1984), with little focus on developing and defining well-being theories; instruments were created to assess well-being without being grounded in theory (Ryan & Deci, 2000). Ryff (1989a) grounded her theory of psychological well-being in an extensive review of the literature relating to positive psychological functioning. This included perspectives such as Maslow's (1968) conception of self-actualization, Rogers's (1961) view of the fully functioning person, Jung's (Jung, 1933; Von Franz, 1964) formulation of individuation, and Allport's (1961) conception of maturity. Ryff's theory also was influenced by life span developmental perspectives, including Erikson's (1959) psychosocial stages model, Buhler's basic life tendencies that work toward the fulfillment of life (Buhler, 1935; Buhler & Massarik, 1968), Neugarten's (1968,1973) descriptions of personality change in adulthood and old age, and Jahoda's (1958) criteria of positive mental health. Ryff (1989a) argued that all of the preceding viewpoints could be integrated into a more parsimonious summary. The convergence of these theories constitutes the core dimensions of Ryff's psychological well-being domains: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. These six constructs define

PWB both theoretically and operationally and specify what constitutes emotional and physical health (Ryff, 1989a; 1989b).

### **Self-acceptance.**

Possessing positive attitudes toward oneself is a focal characteristic of positive psychological functioning defined by Ryff (1989a). Self-acceptance is a characteristic of self-actualization, optimal functioning, and maturity. In the development of Ryff's Psychological Well-Being Scale (RPWBS; Ryff, 1989b), she explained that higher scores would reflect an individual who: possesses a positive attitude toward the self; acknowledges and accepts multiple aspects of self, including good and bad qualities; and who feels positively about past life. An individual with lower scores would feel dissatisfied with self, disappointed with what has occurred in past life, troubled about certain personal qualities, and would wish to be different than what he or she is (Ryff, 1989b).

### **Positive Relations with Others.**

Ryff (1989a) emphasized the importance of Positive Relations with Others in her conceptualization of psychological well-being. Many of the theories she grounded her theory of psychological well-being on highlighted the importance of warm, trusting interpersonal relations, with the ability to love as a central component of mental health. Higher scorers on Ryff's (1989b) subscale of Positive Relations with Others are people who: have a warm, satisfying, trusting relationships with others; are concerned about the welfare of others; are capable of strong empathy, affection, and intimacy; and understand give and take in human relationships. A person exhibiting lower scores would: have few close, trusting relationships with others; find it difficult to be warm, open, and concerned

about others; be isolated and frustrated in interpersonal relationships; and be unwilling to make compromises (Ryff, 1989b).

**Autonomy.**

The domain of Autonomy emphasizes qualities such as self-determination, independence, and the regulation of behavior from within (Ryff, 1989a). Autonomous individuals are described as showing independent functioning and having an internal locus of appraisal in which they do not look to others for approval, but evaluate themselves by reasonable, personal standards. High scores on the Autonomy subscale of the RPWBS (Ryff, 1989b) indicate a person who: is self-determining and independent; is able to resist social pressures to think and act in certain ways; regulates behavior from within; and evaluates self by personal standards. Low scores indicate a person who is concerned about the expectations and evaluations of others, relies on judgments of others to make important decisions, and conforms to social pressures to think and act in certain ways (Ryff, 1989b).

**Environmental Mastery.**

Environmental Mastery represents a person who has the ability to select or construct environments appropriate to fit his or her conditions (Ryff, 1989a). High scorers on the Environmental Mastery subscale of the RPWBS (Ryff, 1989b) suggest that a person has a sense of mastery and competence in managing the environment, controls a complex array of external activities, makes effective use of surrounding opportunities, and is able to choose or create contexts suitable to personal needs and values. Low scorers experience difficulty managing everyday affairs, feel unable to change or improve

surrounding context, are unaware of surrounding opportunities, and lack a sense of control over the external world (Ryff, 1989b).

### **Purpose in Life.**

From Ryff's (1989a) review of positive psychological functioning, she noted that mental health is defined to encompass the feeling there is purpose in and meaning to life. This subscale highlights a clear comprehension of life's purpose, a sense of directedness, and intentionality. High scores on the Purpose in Life subscale (Ryff, 1989b) identify people who have goals in life and a sense of directedness, feels there is meaning to present and past life, holds beliefs that give life purpose, and have aims and objectives for living. Low scores would indicate a person who lacks a sense of meaning in life, has few goals or aims, lacks a sense of direction, does not see the purpose of his or her past life, and has no outlook or beliefs that give life meaning (Ryff, 1989b).

### **Personal Growth.**

The last domain of Ryff's (1989a) positive psychological functioning is Personal Growth. Personal Growth includes functioning in which an individual continues to develop one's potential, and to grow and expand as a person. It includes a need to self-actualize and a realization that one's potential is significant to the experience of personal growth. High scorers on the Personal Growth subscale of the RPWBS (Ryff, 1989b) demonstrate a feeling of continued development, see themselves as growing and expanding, are open to new experiences, have a sense of realizing their potential, see improvement in themselves and their behavior over time, and are changing in ways that reflect more self- knowledge and effectiveness. Low scorers have a sense of personal

stagnation, lack a sense of improvement or expansion over time, feel bored and uninterested with life, and feel unable to develop new attitudes or behavior (Ryff, 1989b).

Ryff (1989a, 1989b) integrated mental health, clinical, and life span developmental theories to define a theory of positive psychological functioning. The six domains identified by Ryff indicate characteristics that individuals will possess if they experience well-being. Ryff's domains, in addition to satisfaction with life and happiness, was used to conceptualize psychological well-being within this investigation.

### **Satisfaction With Life**

Research within hedonic psychology commonly has defined subjective well-being (SWB; Diener & Lucas 1999) to include three components: life satisfaction, the presence of positive mood, and the absence of negative mood (Andrews & Withey, 1976; Diener & Lucas, 1999). SWB refers to an individual's evaluative reactions to his or her life, either in terms of life satisfaction (cognitive evaluations) or ongoing emotional reactions. Life satisfaction is a construct that is central to the study of SWB (Andrews & Withey, 1976; Diener, 1984). Life satisfaction signifies a cognitive, judgmental process (Diener, et al., 1985). These judgments and satisfactions are contingent upon a comparison of one's circumstances with what is thought to be an appropriate standard. Diener and colleagues (1985) explained that one's judgments of satisfaction are based on a set of standards that an individual sets for him or herself, not standards that are externally imposed. This is the hallmark for subjective well-being; it centers on the person's own judgments, not upon applied, external criteria. When quantitatively measured, satisfaction with life assesses a person's cognitive-judgmental process relating to his or her fulfillment with life circumstances.



## **Happiness**

Associating well-being with hedonic pleasure or happiness has a long history dating back to Aristippus, a Greek philosopher from the fourth century B.C. who explained that the goal of life is to experience the greatest degree of pleasure, and that happiness is the totality of one's hedonic moments (Ryan & Deci, 2001). Veenhoven (1994) explained that Western culture has embraced happiness as one of its most important values at both the individual and societal level. Surveys have revealed that a great number of North Americans contemplate happiness at least once each day (Freedman, 1978; Lyubomirsky & Lepper, 1999). Lyubomirsky and Lepper (1999) defended the idea that subjective measures of well-being must be included when assessing an individual's well-being. They explained that researchers within the "subjectivist tradition are not surprised that some people consider themselves happy despite personal obstacles, tragedy, or lack of any great love or wealth, while others perceive themselves as unhappy despite being surrounded by all of life's comforts and advantages" (Lyubomirsky & Lepper, 1999, p. 138-139).

### **Proposed Mediation Model**

Hatzenbuehler's (2009) psychological mediation framework proposes that sexual minority individuals meet increased stress exposure as a result of heterosexism. Hatzenbuehler (2009) explains that the relationship between stigma-related stress and psychopathology is mediated by emotional dysregulation, social and interpersonal problems, and unhelpful cognitive processes. As a result of the increased stigma experienced by sexual minorities, these processes function at a higher level, intensifying the risk for negative mental health outcomes.

Internalized heterosexism, expectations of rejection, and emotion regulation have a strong literature base associating them with mental health outcomes. Sexual minority microaggressions may be viewed as forms of stress resulting from prejudice. The experience of microaggressions may create elevations in processes that mediate the effect between microaggressions and well-being. This mediation model hypothesized that internalized heterosexism, expectations of rejection and emotion regulation would mediate the relationship between sexual minority microaggressions and psychological well-being. The experience of microaggressions would lead to higher levels of expectations of rejection and internalized heterosexism and less emotion regulation ability. These hypotheses are consistent and framed within Hatzenbuehler's (2009) model in that they suggest a mediating variable between stigma and psychological outcomes. The study's variables were selected on theoretical foundations and previous empirical research regarding direct links between these variables.

Based upon the extensive literature review, the hypotheses for this study are as follows:

*Hypothesis 1:* Internalized heterosexism will mediate the relationship between experiences of sexual minority microaggressions and psychological well-being.

*Hypothesis 2:* Expectations of rejection will mediate the relationship between experiences of sexual minority microaggressions and psychological well-being.

*Hypothesis 3:* Emotion regulation will mediate the relationship between experiences of sexual minority microaggressions and psychological well-being.

*Hypothesis 4:* Sexual minority microaggressions will be negatively correlated with emotion regulation and positively correlated with expectations of rejection and with internalized heterosexism.

*Hypothesis 5:* Sexual minority microaggressions will be negatively correlated with psychological well-being.

The mediational model is located in Appendix C.

### **Summary**

This literature review provided an overview of the prevalence of mental health problems experienced by sexual minority individuals and minority stress theorists' explanations for this prevalence of mental health problems. This was discussed and framed within the context of heteronormativity. Sexual orientation microaggressions and psychological well-being, along with three identified mediators, were elaborated upon, providing evidence for their roles within the mediation model. The purpose of this chapter was to illustrate and describe the evidence established through theory and research that provided the foundation for the hypotheses in this mediation model. Chapter III will describe the methodology regarding this research investigation.

## **CHAPTER III**

### **METHODOLOGY**

The purpose of this chapter is to summarize the study's design and methodological approach. The intention of this study was to explore the relationship between the perceived experience of stigma-related experiences (microaggressions) and psychological well-being using a mediational model (see Appendix C and G for pictorial model). Research design, inclusion criteria, self-report instruments, procedures for recruitment, and statistical analysis plan are discussed. Detailed information will be provided regarding the instruments and the data analysis approach, structural equation modeling (SEM).

#### **Research Design**

The project's design was correlational as the mediational model was identifying dependence of one variable on another. This design was also confirmatory because the hypotheses were derived prior to statistical testing (Kline, 2010). The advantage of confirmatory research is reducing the probability of falsely reporting a non-significant result as significant or reducing Type I error (Whitley & Kite, 2013). Data were collected by means of self-report surveys through an on-line website (Qualtrics.com) intentionally designed for survey research and data collection. The total number of items combined for this study is approximately 200 and took participants about 20-30 minutes to complete (Appendix H for calculation procedure; Puleston, 2012). The study purpose – to identify mechanisms within the relationship between the experience of microaggressions and psychological well-being – was the impetus behind the study design.

An advantage of this study was its design and methodology. Unseen latent variables cannot be measured directly, but are designated by responses to a number of observable variables (Lei & Wu, 2007). SEM models are able to capture more of the latent variable because they can incorporate multiple measures to assess these variables. SEM also incorporates measurement error into the design. This allows for the model to be statistically stronger and significant than if the error was not taken into consideration (Lei & Wu, 2007). The analysis plan will be further described near the end of the chapter.

### **Participants**

Individuals who identified as a sexual minority (e.g., gay man, lesbian, queer, bisexual, two-spirit, same-sex attraction, etc.), were 18 years or older, and were willing to complete an online survey were asked to participate. Transgender individuals experience a unique set of discriminatory experiences unlike that of other sexual minority individuals (Nadal et al., 2012). The hope and intention would be to explore the perceived experiences of subtle discrimination of those who identify as transgender in a future study that focuses exclusively on their individual experience. Thus, individuals identifying as transgender were not the focus of this study. If someone identified as transgender and as LGB, their data were included. Additionally, based on the best practice for asking questions about sexual orientation from the Williams Institute (see <http://williamsinstitute.law.ucla.edu/research/census/lgbt-demographics-studies/best-practices-for-asking-questions-about-sexual-orientation-on-surveys/>), participants were asked to report their sexual identity, sexual activity and behavior, and sexual attraction. The participants' responses to the sexual identity, attraction, and behavior questions were reviewed to assess whether their data would be included in data analysis. A participant's

response to the sexual identity question was used as the main source of data in making decisions about including that individual's responses in the data analysis. Sexual activity and behavior and sexual attraction were considered second and third in the decision making process. The Williams Institute recommends using the behavior question as the main mode of determining one's sexual orientation. They stated that self-identification may not be in alignment with one's sexual attraction or behavior. They further explained that a large number of people who self-identify as heterosexual or bisexual also reported experiencing same-sex attraction and behavior (The Williams Institute, 2009).

Participants who reported 'mostly exclusive' and 'exclusive' sexual activity behavior with another gender, based upon the recommendations of the Williams Institute, would have been omitted from this study. However, upon further exploration, participants in this study who reported 'mostly exclusive' and 'exclusive' sexual activity and behavior with another gender reported their sexual identity as bisexual. Because of this, sexual identity was used as the main factor for inclusion criteria, followed by sexual activity and behavior. These questions (e.g. identity, attraction, and behavior) were also intended to gather data to assist in explaining the characteristics of the sample.

The final sample was comprised of 233 participants (48.5% identified as female, 42.5% as male, 3.4% as transgender, 2.6% as genderqueer, 1.7% as gender fluid, .9% as agender, and .4% did not answer) that ranged in age from 18 to 77 years ( $M = 42.3$ ,  $SD = 15.83$ ). In terms of ethnicity, 85% participants identified as Caucasian, 5.1% as Latino/a, 4.3% as multiracial, 3% as African American, 1.3% as Native American, .9% as Asian American, and .4% people did not respond. In this study, 51.4% of participants self-identified as exclusively lesbian or gay, 21.5% as bisexual, 12.4% as mostly lesbian or

gay, 6.9% as pansexual, 3.4% as queer, 1.3% as questioning, .9% as two-spirit, .9% as mostly straight/heterosexual, .9% selected 'other' and did not indicate sexual identity, and .4% as asexual. In terms of sexual behavior, 53.2% of participants reported sexual behavior all with same gender, 12.9% as not sexually active with any gender, 12.4% as mostly with same gender, 8.2% as equally with all genders, 7.7% as more with another gender, 3% as all with another gender, and 2.6% as most with another gender.

Participants reported being totally attracted to the same gender (48.5%), mostly attracted to same gender (23.6%), equally attracted to both genders (22.7%), more attracted to another gender (2.2%), mostly attracted to another gender (1.3%), not attracted to any gender (.9%), totally attracted to another gender (.4%), and .4% did not respond. In terms of being out, 205 participants reported they were out, with a total time out to others ranging from .08 to 74 years ( $M = 17.88$ ;  $SD = 14.05$ ). Regarding relationship status, 49.8% of participants were in a committed relationship/married, 28.3% were single, 7.7% were in a dating relationship, 8.6% were dating seriously, 1.7% were divorced/broken-up, 1.7% were widowed, 1.3% were polyamorous, and .9% did not respond. Participants' reported their family household yearly income as: \$10,000 (5.2%); \$10,000-\$25,000 (15.9%); \$25,000-\$50,000 (24.5%); \$50,000 to \$75,000 (24.9%); \$75,000-\$100,000 (9%); \$100,000-\$125,000 (7.7%); \$125,000-\$150,000 (3.4%); and \$150,000 (9.4%). The sample was well-educated, with 4.7% reporting a doctoral degree, 17.6% a Master's degree, 9.4% some graduate school, 26.2% an undergraduate degree, 34.8% some college, 6% completed high school, .9% did not complete high school, and .4% did not respond. Participants were recruited to the survey via email (26.2%), social media (14.6%), a friend (15%), Qualtrics recruiting (42.9%), and LGBT University Center

(1.3%).

### **Measures**

Several instruments and subscales were used to measure the identified latent variables within the hypothesized mediational model (Appendix G). A latent variable is “an unmeasured variable represented by the combination of several operational definitions of a construct” (Whitely & Kite, 2013, p. 319). The operational definitions of constructs are the instruments that will capture dimensions of the construct. The latent variables under investigation included microaggressions, internalized heterosexism, emotion regulation, stigma consciousness and psychological well-being. The measures associated with the constructs are described below. Additionally, demographic information was collected from the participants.

### **Demographics**

Participant demographic information was collected including: age, gender, race /ethnicity, sexual orientation, educational background, relationship status, years out as a sexual minority, sexual activity and behavior, sexual attraction, region where participants live and how they were recruited to the survey (Appendix I). The participants may skip any question relating to demographics, or any measure for that matter, if they feel uncomfortable answering. This is described within the informed consent statement (Appendix J) and invitation to participate (Appendix K). Demographic variables were collected to adequately describe the sample population and to verify that data analyses only included responses from those who identify as experiencing same sex attraction. Demographic variables were explored using descriptive and frequency statistics.

### **Microaggressions**



**Homonegative Microaggression Scale (HMS; Wright & Wegner, 2012; Appendix L).** The HMS was used to assess the experience and impact of sexual minority microaggressions. The three major scales of the HMS (current, past, and impact) consist of 45 items each. The 45 items are examples of microaggressions. For each microaggression question, the current frequency, past frequency, and the impact of the microaggression are assessed. For the present study, current frequency and impact were collected. The HMS has 11 subscales related to the types of microaggressions drawn from Sue et al.'s (2007) taxonomy of microaggressions that categorized racial microaggressions. HMS-current frequency items were assessed on a five-point response scale ranging from 1 (*hardly ever / never*) to 5 (*constantly*). Example items include, “How often have people conveyed that it is your choice to be gay?” and “How often have people physically shielded their child / children from you?” HMS-impact was assessed after each HMS-current frequency microaggression by asking participants how much the microaggression impacted him or her. This was assessed on a Likert-type scale ranging from 1 (*not at all*) to 5 (*a great deal*). Mean scores were calculated, and higher scores indicated greater experiences of microaggressions and greater impact of those microaggressions. Wright and Wegner (2012) reported Cronbach's alpha of .94 (HMS-current) and .96 (HMS-impact) when used with an adult, community sample that identified as LGB. Convergent validity was shown as HMS scores were related to lower self-esteem, negative feelings and development of sexual minority identity, and difficulty in the process of developing one's sexual minority identity (Wright & Wegner, 2012). Cronbach's alpha for this sample was .95 (HMS-current) and .96 (HMS-impact).

### **Internalized Heterosexism**

The construct of internalized heterosexism was assessed using three measures: the Internalized Homophobia Scale (IHP; Herek et al., 1998; Appendix M), the Sexual Identity Distress measure (SID; Wright, Dye, Jiles, & Marcello, 1999; Wright & Perry, 2006; Appendix N) and the Internalized Homonegativity subscale from the Lesbian, Gay, and Bisexual Identity Scale (Mohr & Kendra, 2011; Appendix O).

**IHP.** The IHP was originally developed by Martin and Dean (1987) to assess internalized heterosexism in gay men. Herek et al. (1998) modified this measure to be used with gay and bisexual men and lesbian and bisexual women. The measure consists of nine items. Examples include, “If someone offered me the chance to be completely heterosexual, I would accept the chance,” and “I wish I weren't gay/lesbian/bisexual.” IHP items were administered with a five-point response scale, ranging from 1 (*disagree strongly*) to 5 (*agree strongly*). Higher scores implied greater amounts of internalized heterosexism.

Herek et al. (1998) found that higher internalized heterosexism scores were associated with less self-disclosure to heterosexual friends and acquaintances, less connection to the gay and lesbian community, more depressive symptoms, and higher levels of demoralization than lower scores in a community sample of lesbian and gay men. Additionally, convergent validity for the scale was established through significant negative correlations with individual self-esteem (for gay men) and collective self-esteem (for both gay men and lesbians; Herek et al., 1998). Herek and colleagues (1998) reported alphas of .71 for women and .83 for men in an adult, community sample of lesbian, gay, bisexual individuals. Recent reported alphas were .92 for lesbian couples and .82 for gay couples (Goldberg & Smith, 2011). Cronbach's alpha for this sample was .87.

**SID.** The second measure to assess internalized heterosexism was developed out of the Indiana Youth Access Project (IYAP; Wright et al., 1999; Wright & Perry, 2006). For the project, Wright developed the measure to gauge the sexual identity-related distress youth felt about their sexual orientation (Wright & Perry, 2006). When this was administered at the IYAP, interviewers were instructed to use the sexual identity label reported by the participant. As this is an online survey and not a face-to-face interview, the survey items reflected a range of sexual orientation labels by using the phrase ‘gay/lesbian/bisexual.’ This wording was taken from Wright and Perry’s (2006) peer-reviewed journal article. The measure is comprised of seven items; example items include, “I have a positive attitude about being gay/lesbian/bisexual,” and “I feel uneasy around people who are very open in public about being gay/lesbian/ bisexual.” Participants responded on a five-point scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). A total score was calculated by summing the individual items after reverse coding several items, with high scores designating a greater degree of distress about identifying as a sexual minority.

Wright et al. (1999) reported an alpha of .87 in a sample of 171 late adolescents and young adults who identified as gay, lesbian, or bisexual. Several studies have used this measure with adults and reported an alpha of .81 (Riggle, Rostosky, & Horne, 2010a; 2010b; Rostosky & Riggle, 2002). Another study using this measure with adolescent and young adult gay men (13-21 years old) reported an alpha of .84 (Dudley, Rostosky, Korfhage, & Zimmerman, 2002). Construct validity for the measure was established by Wright et al.’s (1999) findings that their scale was positively related to psychological distress and negatively associated with Rosenberg’s (1965) Self-Esteem Scale. Wright

and Perry (2006) additionally reported a six month test–retest reliability of .56 in a community sample of LGB youth (average age 18 years old). Cronbach’s alpha for this sample was .82.

**Internalized Homonegativity.** The final measure to assess internalized heterosexism was the Internalized Homonegativity subscale from the Lesbian, Gay, and Bisexual Identity Scale (LGBIS; Mohr & Kendra, 2011). The LGBIS is an extension and revision of the Lesbian and Gay Identity Scale (LGIS; Mohr & Fassinger, 2000). In the construction of the LGIS, data from their adult sample of same-sex attracted individuals led to the development of a 27-item measure with six identity-related subscales: Internalized Homonegativity, Need for Privacy, Need for Acceptance, Difficult Process, Identity Confusion, and Superiority. The revised LGBIS contains 27 items with eight subscales: Acceptance Concerns, Concealment Motivation, Identity Uncertainty, Internalized Homonegativity, Difficult Process, Identity Superiority, Identity Affirmation, and Identity Centrality. The Internalized Homonegativity subscale contains three items that are measured on a six-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A total score was calculated by summing the individual items with a higher score indicating more internalized homonegativity. Items include: “If it were possible, I would choose to be straight;” “I wish I were heterosexual;” and “I believe it is unfair that I am attracted to people of the same sex.”

Mohr and Kendra (2011) reported that Internalized Homonegativity subscale was positively related to other measures of internalized homonegativity and to measures of negative psychosocial functioning including, depression, guilt, fear, sadness and hostility. In their sample of 654 university students with 460 identifying as lesbian/gay and 194 as

bisexual, the Internalized Homonegativity subscale was negatively related to a measure that assesses the strength of connection to LGB people and one's LGB identity, to satisfaction with life (Diener et al., 1985), and to collective self-esteem (Luhtanen & Crocker, 1992). Mohr and Kendra (2011) reported that test-retest reliability in a period of six weeks was .92 and the coefficient alpha was .86. Moleiro, Pinto, and Freire (2013), in a sample of 471 LGB individuals (with the majority of participants reporting being of Portuguese origin) reported a coefficient alpha of .83 for the Internalized Homonegativity subscale. Cronbach's alpha for this sample was .83.

### **Emotion Regulation**

The construct of emotion regulation was assessed using two measures that capture three components of emotion regulation: cognitive reappraisal, suppression, and rumination. These measures include the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003; Appendix P) and the Ruminative Response Scale (RRS; Treynor et al., 2003; Appendix Q).

**ERQ.** Cognitive reappraisal and expressive suppression were measured using the ERQ. The ERQ is a 10-item measure that captures an individual's inclination to use reappraisal and suppression to regulate emotion. The items were administered on a seven-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The ERQ consists of two subscales; reappraisal (six items) and suppression (four items). Means were calculated for the scores, with lower scores indicating more suppression and less reappraisal. However, to be consistent with the scoring of all measures in this study, all items were recorded so that higher scores indicated more reappraisal and more suppression. Example items for the cognitive reappraisal subscale includes, "I control my

emotions by changing the way I think about the situation I'm in," and "When I want to feel less negative emotion, I change the way I'm thinking about the situation." Example items for the suppression subscale include, "When I am feeling negative emotions, I make sure not to express them," and "I keep my emotions to myself."

With an undergraduate sample ( $N = 1483$ ), the intercorrelations between subscales were low, indicating that individuals who regularly used reappraisal were no more (or less) likely to use suppression than individuals who used reappraisal only occasionally. Gross and John (2003) reported satisfactory 3-month test-retest reliability (coefficient alpha of .69), internal consistency of .79 for reappraisal and .73 for suppression, and satisfactory convergent and discriminant validity. Reappraisal was associated positively with indicators of positive functioning, such as Ryff's psychological well-being scales (Ryff, 1989a), optimism (Scheier & Carver, 1985), self-esteem (Rosenberg, 1965), and life satisfaction (Diener et al., 1985). In addition, individuals who typically suppress reported more depressive symptoms on three measures, including the Center for Epidemiological Studies Depression Scale (Radloff, 1977), Zung Depression Scale (Zung, 1965), and the Beck Depression Inventory (Beck, Ward, Mendelsohn, Mock, & Erbaugh, 1961). Those higher in suppression also scored lower on well-being measures (same as listed above). Suppression was associated with inauthenticity and coping through venting and was negatively related to all three mood scales listed above. Reappraisal was related to greater use of mood repair and coping through reinterpretation. Reappraisal was also related negatively to Neuroticism within the Big Five personality dimension (John & Srivastava, 1999), whereas suppression was associated negatively to Extraversion (Gross & John, 2003).

Several other authors reported adequate reliability utilizing university student samples. Ehring et al. (2010) reported coefficient alphas of .81 and .74 for suppression and reappraisal (respectively) with university students in Germany ( $N = 73$ ). In addition, Perez and Soto (2011) reported coefficient alphas of .82 and .80 in their sample of Latino American and Puerto Rican student samples ( $N = 287$ ). With regards to community samples, Troy et al. (2010) reported a coefficient alpha for the total score of .88 in a female community sample ( $N = 78$ ). Finally, Hatzenbuehler, Dovidio et al. (2009) reported using two items from the suppression subscale (“I kept my emotions to myself” and “I controlled my emotions by not expressing them”) from the EQR in a sample of lesbian, gay and bisexual students and community members ( $N = 31$ ; mean age = 21). They reported a coefficient alpha of .85. Cronbach’s alpha for this sample was .86 (reappraisal) and .87 (suppression).

**RRS.** Rumination was assessed using the Brooding and Reflection subscales from the 22-item RRS, which originated within the 71-item Response Style Questionnaire (RSQ; Nolen-Hoeksema & Morrow, 1991). The RRS consists of three subscales (brooding, reflection and depression-related) and measures responses “to depressed mood that are self-focused, symptom focused and focused on the possible consequences and causes of the mood” (Nolen-Hoeksema, Larson & Grayson, 1999, p. 1064). The items on the Reflection subscale reflect an intentional focus inward to engage in cognitive problem solving to lessen one’s depressive symptoms. The Brooding subscale reflects a passive judgment of one’s current situation (Treyner et al., 2003). Treyner et al. (2003) explained that the Brooding subscale assess what people do when they are sad, blue, or depressed (moody). They stated this is consistent with Webster’s Dictionary definition of brooding

as ‘moody pondering.’ The Brooding and Reflection subscales consist of five items each. Participants responded to items on a four-point Likert-type scale ranging from 1 (*almost never*) to 4 (*almost always*). Example items from the Reflection subscale include, “Go away by yourself and think about why you feel this way,” and “Write down what you are thinking and analyze it.” Example items from the Brooding subscale include, “Think ‘Why do I always react this way?’” and “Think about a recent situation, wishing it had gone better.” Items will be scored (Reflection items are reversed scored) and a mean score will be generated with higher scores indicating more rumination.

There has been some debate regarding the items of the RRS potentially being confounded with depression content. Treynor et al. (2003) investigated the RRS to determine if rumination was confounded with depression content. Depression was not confounded with rumination; a two-factor model of rumination was found (reflection and brooding). Coefficient alpha for the Reflection subscale was .72 and test-retest correlation over a two year period was .60 in a community sample of adults in the Oakland, San Francisco and San Jose, California area (Treynor et al., 2003). For the Brooding subscale, coefficient alpha was .72 and .62 for test-retest (Treynor et al., 2003). Treynor and colleagues reported that these alphas were moderately low, but noted that the subscales were only five items and if the items were doubled to 10, the items would produce an estimated coefficient alpha of .85. Through further analysis, the authors concluded that the 10-item scale (Reflection and Brooding) does not have duplicate items with depression scale items and captures two distinct aspects of rumination. Both subscales were found to have satisfactory retest-reliabilities and internal consistencies in community and clinical samples (Joormann et al., 2006). Beck



Depression Scale scores (Beck et al., 1961) were correlated with the Brooding subscale scores ( $r = .44$ ), but not with the Reflection subscale scores ( $r = .12$ ). Finally, Hatzenbuehler et al., (2009) reported using the five items from the Brooding subscale of the RRS (Treyner et al., 2003) in a sample of LGB students and community members ( $N = 31$ ; mean age = 21) and reported a coefficient alpha of 0 .85. Cronbach's alpha for this sample was .85.

### **Expectations of Rejection**

The construct expectations of rejection was assessed using four measures: Stigma Consciousness Questionnaire for Gay Men and Lesbians (SCQ; Pinel, 1999; Appendix R), Expectations of Rejection (Meyer, 1995; Appendix S), Ingroup Disadvantage (Schmitt et al., 2002; Appendix T), and Discrimination Anxiety (Major, Kaiser, O'Brien, & McCoy, 2007; Appendix U).

**SCQ.** The SCQ for Gay Men and Lesbians is a 10-item measure that assesses individuals' expectations of prejudice and discrimination associated with their sexual minority identity. The version of the measure that was used in this study was slightly modified from the original version used by Pinel (1999) for lesbians and gay men. That version was created 15 years ago and inclusive language has shifted; certain terms are no longer regarded as inclusive or respectful. For example, the term 'homosexual' is discouraged from use as this was the term used within the Diagnostic and Statistical Manual to pathologize sexual minority individuals (DSM-II; American Psychiatric Association, 1973). In addition, the term 'sexual preference' suggests that one's attraction and sexual orientation is a choice or decision. These terms have been changed from 'homosexual' to 'sexual minority individuals' and from 'sexual preference' to 'sexual

orientation' to be more inclusive and affirming of those who identify as sexual minority individuals. The term 'homosexual' was also modified by Lewis et al. (2006) in a sample of lesbians.

Items were scored on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Example items include, "I almost never think about the fact that I am a sexual minority individual when I interact with heterosexuals," and "My being a sexual minority individual does not influence how people act with me." Several items were reversed scored and a mean stigma consciousness score was produced, with higher scores indicating greater stigma consciousness.

Pinel (1999) reported a coefficient alpha of .81 in her sample of gay men and lesbians ( $N = 50$ ). Lewis et al. (2003) reported a coefficient alpha of .74 in a sample of LGB adults. In a similar sample of only lesbians, a coefficient alpha of .65 was reported (Lewis et al., 2006). Stigma consciousness among gay men and lesbians correlated positively with self-consciousness (Public and Private subscales of the Self-Consciousness Scale; Fenigstein, Scheier, & Buss, 1975;  $r = .33$ ) and four measures of perceptions of discrimination ( $r = .33$  to  $.57$ ) (Pinel, 1999). Stigma consciousness was not related significantly with either trust in people ( $r = .16$ ) or the Social Anxiety subscale of the SCS ( $r = .14$ ). Cronbach's alpha for this sample was .79.

**Expectations of Rejection.** This six-item measure asks participants how likely is it that others will look down on them because of their sexual orientation. The instructions specified: "These next questions refer to a person like you; by this we mean persons who have the same sexual orientation as you. Please read each item and decide whether you agree or disagree and to what extent." Participants responded to the items on a scale that

ranges from 0 (*strongly agree*) to 3 (*strongly disagree*). Items were summed for a total score. Example items include: “Most people believe that a person like you cannot be trusted” and “Most people look down on people like you.” Cronbach’s alpha for a sample of lesbians living in the American Southeast was .92 (Irwin & Austin, 2013). The same alpha level was also found in a mostly White, adult, community sample of sexual minority individuals (Liao et al., in press). Positive correlations between perceived stigma and measures of depressive symptoms and experiences of discrimination supported construct validity (Irwin & Austin, 2013). Cronbach’s alpha for this sample was .92.

**Ingroup Disadvantage.** This measure was originally designed to assess gender discrimination experienced by women (Schmitt et al, 2002). The measure was slightly modified to assess perceived pervasiveness of sexual orientation discrimination. Ingroup disadvantage includes measuring the perceptions of disadvantages faced by one’s minority group. The measure consists of three items. Language within the items was changed from “women” to “sexual minority individuals” to capture the correct demographic. Participants were asked to report their level of agreement with each statement on a response scale ranging from 1 (*very strongly disagree*) to 6 (*very strongly agree*). Example items include: “Sexual minority individuals face a good deal of discrimination” and “I will likely be a target of discrimination based on my sexual orientation in the next year.” To the author’s knowledge, this measure has not been previously used in a sexual minority sample. Cronbach’s alpha for this sample was .74.

**Discrimination Anxiety.** This measure was originally designed to assess anxiety related to experiences of gender discrimination experienced by women (Major et al., 2007). The measure was slightly modified to assess discrimination anxiety related to

sexual orientation discrimination. Discrimination anxiety includes assessing one's appraisals of personal threat and perceived vulnerability to prejudice. The measure consists of six items. Language within the items was changed from "women" to "sexual minority individuals" to capture the correct demographic. Participants were asked to respond to the six statements using a response scale ranging from 1 (*very strongly disagree*) to 6 (*very strongly agree*). Example items include: "I worry that prejudice against sexual minority individuals will have a negative effect on my life" and "Discrimination will prevent me from reaching my goals." To the author's knowledge, this measure has not been previously used in a sexual minority sample. Cronbach's alpha for this sample was .92.

### **Psychological Well-Being**

Psychological well-being (PWB) was assessed using three separate measures including Ryff's Psychological Well-Being Scale (RPWBS; 1989b; Ryff, & Keyes, 1995; Appendix V), the Satisfaction With Life Scale (SWLS; Diener et al., 1985; Appendix W), and the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999; Appendix X).

**RPWBS.** The first measure of PWB is based upon Ryff's (1989a; 1989b) theoretical model of PWB, which is a multidimensional model of well-being. PWB consists of six components: 1) Autonomy, connected with personal standards and a sense of self-determination; 2) Environmental Mastery, capacity to manage one's environment and world; 3) Personal Growth, feeling of growth and development as a person; 4) Positive Relations with Others, can establish and maintain meaningful and positive relationships; 5) Purpose in Life, belief that life has purpose and meaning; and 6) Self-Acceptance, positive evaluations of self (Ryff, 1989a; 1989b; Ryff & Keyes, 1995).

These six related constructs of psychological well-being were created to organize theories of life course development and positive psychological functioning using a construct-focused approach to personality measurement (Ryff & Singer, 2006). There are several versions of Ryff's psychological well-being inventory: a) 84 questions (full version), 14 items per subscale; b) 54 questions, 9 items per subscale; c) 42 items per subscale, 7 items per subscale; d) 36 questions, 6 items per subscale; or e) 18 questions, 3 items per subscale. The full scale is provided in Appendix V with the items bolded that will be used in this study.

Each subscale consists of positive and negative items. Responses were totaled for each subscale except for the 18-item version. Negative items were reversed scored so that higher scores on each subscale indicate higher self-ratings, meaning that the participant has a mastery of that dimension in his or her life. On the other hand, a low score demonstrates that the participant struggles to feel comfortable with that particular dimension. Participants were asked whether they agree or disagree with each item on a six-point Likert-type scale ranging from 1 (*disagree strongly*) to 6 (*agree strongly*). Example items from the 18-item version include: Autonomy, "I have confidence in my opinions, even if they are contrary to the general consensus;" Environmental Mastery, "In general, I feel I am in charge of the situation in which I live;" Personal Growth, "For me, life has been a continuous process of learning, changing, and growth;" Positive Relations with Others, "I have not experienced many warm and trusting relationships with others;" Purpose in Life, "Some people wander aimlessly through life, but I am not one of them;" and Self-Acceptance, "I like most aspects of my personality."

Kertzner, Meyer, Frost and Stirratt (2009) used the 18-item version to assess psychological well-being in their sample of LGB participants ( $N = 396$ ). They reported an internal consistency reliability of the total scale as .75, and alphas for the subscales ranged from .25 to .55. These authors did not analyze each subscale separately because of low reliability of the subscales, but calculated an overall score for psychological well-being. Their approach to using a total score for the psychological well-being was a result of the controversy within the recent literature that the scale represents one dimension rather than separate dimensions related to the specific subscales (Abbott et al., 2006; Burns & Machin, 2009; Springer & Hauser, 2006). The 18 item version was used in this project. Cronbach's alpha for this sample was .87.

**SWLS.** The SWLS is a five-item self-report survey used to measure global life satisfaction. Life satisfaction refers to the cognitive, judgmental process as one assesses his or her life according to a person's chosen criteria (Shin & Johnson, 1978). Prior to scale construction, Diener et al. (1985) noted that a measure with sound psychometric properties was needed to assess the cognitive-judgmental component deemed life satisfaction. Participants responded to items on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Example items include, "In most ways my life is close to ideal," and "The conditions of my life are excellent." Scores are summed to provide an overall score within the range of 5 (low satisfaction) to 35 (high satisfaction).

In a sample of undergraduate students and a geriatric sample, the SWLS was positively correlated with several other measures of positive subjective well-being with correlation coefficients ranging from .50 to .75 (Diener et al. 1985). Correlations with additional instruments in the undergraduate sample were reported in Diener et al.'s

(1985) second study and were as follows: self-esteem  $r = .54$ , symptom checklist  $r = -.41$ , neuroticism  $r = -.48$ , emotionality  $r = -.25$ , and sociability  $r = .20$ , indicating that those who are content with their lives are, in general, well-balanced and free from psychopathology. The two-month test–retest reliability coefficient was .82, and the coefficient alpha was .87 (Diener et al. 1985).

The SWLS has been used all over the world with sexual minority samples. The Spanish version of this scale was used in a sample of 220 gay men in Spain with authors reporting a coefficient alpha of .84 (Domínguez-Fuentes, Hombrados-Mendieta, & García-Leiva, 2012). Wong and Tang (2003), in a sample of 187 Chinese gay men, reported a coefficient alpha of .92. Additionally, sexual minority students from Cuba, South Africa, Norway, and India ( $N = 853$ ) completed the SWLS and researchers reported a coefficient alpha of .78 (Traeen, Martinussen, Vittersø, & Saini, 2009). Halpin and Allen (2004) reported a coefficient alpha of .87 in a sample of 425 males who reported sexual attraction to other men from a global sample (United States of America, Australia and New Zealand, Europe, United Kingdom, Canada, Asia and Latin America). In a sample of 1,084 Chinese lesbians, researchers reported a coefficient alpha of .82 (Li, Johnson, & Jenkins-Guarnieri, 2013). Within the United States, King and Smith (2004) reported a test-retest coefficient of .60 in a sample of sexual minority individuals ( $N = 107$ ) over a two year period. This scale has shown solid reliability when used with culturally diverse samples of sexual minority individuals. Cronbach's alpha for this sample was .90.

**SHS.** The SHS is a four-item scale assessing global subjective happiness. Participants responded to items on a 7-point Likert-type scale ranging from 1 (*not a very*

*happy person*) to 7 (*a very happy person*). A total score for global subjective happiness was calculated by averaging responses to the four items with the fourth item being reverse-coded. The possible range of scores is from 1.0 to 7.0, with higher responses revealing greater happiness, with one item being reversed scored. Two items ask participants to describe themselves using absolute ratings and ratings relative to peers. Example item includes, "In general, I consider myself: 1 (*not a very happy person*) to 7 (*a very happy person*). The remaining two items offer a brief description of happy and unhappy individuals and ask participants the extent to which each description defines them. Example item includes, "Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?"

Reliability and validity of the SHS was assessed through 14 samples with the total number of participants equaling 2,732 (1,754 women, 962 men, 16 unknown; Lyubomirsky & Lepper, 1999). The samples were recruited as follows: nine samples from three different college campuses, one sample from a high school campus, and three samples recruited from the community (three of working adults and one of retired adults). The coefficient alphas for the scale ranged from .79 to .94 (Lyubomirsky & Lepper, 1999). Data collected in five separate studies (test administration between three weeks and one year in undergraduate and community samples) was used to assess test-retest reliability. Test-retest reliability coefficients ranged between .55 and .90. Correlations with four other measures of happiness and well-being ranged from .52 to .72, establishing convergent validity. Convergent validity was assessed using several constructs with which happiness has been theoretically and empirically related to in previous research,



such as self-esteem ( $r = .53 - .58$ ; Rosenberg, 1965), optimism ( $r = .47 - .6$ ; Scheier and Carver, 1985), positive emotionality ( $r = .48$ ) and negative emotionality ( $r = .39$ ; Tellegen, 1985), extraversion ( $r = .36$ ) and neuroticism ( $r = .5$ ; Eysenck & Eysenck, 1975), and dysphoria ( $r = .49 - .54$ ; Beck, 1967); correlations with related constructs were reasonable, ranging from .36 to .60 (Lyubomirsky & Lepper, 1999). With regard to discriminant validity, constructs that theoretically should not be related to happiness were not found to be related (i.e. college grade point average, math and verbal ability, and stressful life events). Lyubomirsky and Lepper (1999) reported that all but one of the correlations failed to reach statistical significance and explained this was a small effect, given the large sample size. In a sample of sexual minority students from Cuba, South Africa, Norway, and India ( $N = 853$ ) researchers reported a coefficient alpha of .70 (Traeen et al., 2009). Cronbach's alpha for this sample was .86.

## **Procedures**

### **Data Collection**

Data collection began upon approval from the University of Missouri – St. Louis Institutional Review Board (IRB). Non-probability sampling included convenience and snowball sampling methods (Whitely & Kite, 2013). Participant recruitment occurred via emailing the study invitation (Appendix K) to appropriate listservs that targeted individuals who identify as adult, sexual minority individuals (lesbian, gay, bisexual, queer, two-spirit, etc.). Examples of listservs included LGBTQ university centers, LGBTQ community centers, and listservs specific to sexual minority persons of color. Approximately 630 emails were sent. In addition to emailing listservs, virtual communities (Facebook) and online discussion groups (Yahoo or Google groups) were

used to recruit participants. Approximately 60 social media sites were targeted during recruitment. A majority of the social media sites were Facebook pages related to sexual minority individuals. Recruitment included posting the survey link on their news feed as well as sending them a message. If the study invitation was emailed or messaged, it was not sent more than twice.

A 30-day advertisement of the survey was posted on Facebook (November 18, 2014 – December 18, 2014). This advertisement appeared on the sidebar of individual's pages that identified themselves as a sexual minority individual and/or identified certain interests (e.g., LGBT pride, Bi pride, Gay Art, Lesbian Music, etc.). Additionally, Qualtrics was used to recruit the final 110 participants needed to reach the minimum sample size for data analysis. Qualtrics maintains a panel of participants; participants that matched the inclusion criteria were sent the survey link. Data collection for Qualtrics took less than one week. The total cost for this approach was \$715.

In addition to the recruitment procedures mentioned above, snowball sampling was used. This strategy involved asking others to assist in locating participants that meet the inclusion criteria such as requesting participants to forward the study invitation to people they think would be willing to complete the survey (Whitely & Kite, 2013).

### **Participants**

With respect to participant sample size, there is not a consensus on the ideal sample size when using SEM as the data analysis technique. The topic is the center of discourse in the literature, however, with most authors noting that a large sample size is recommended (Fassinger, 1987; Fornell, 1983; Martens, 2005). Though there are numerous debates on how to calculate a sample size when using SEM, Martens (2005)

and Kline (2010) recommended a sample size of at least 200 participants. The maximum likelihood estimation test, which is used in SEM, applies to large samples (Fornell, 1983). Conducting a power analysis to confirm the recommendations from the literature indicated that for a medium effect size with a statistical power level of 0.80 (with 5 latent variables, 14 observed latent variables, and a probability level of 0.05), the recommended minimum sample size for the model structure was 232 (<http://danielsoper.com/statcalc3/calc.aspx?id=89>). Recruitment procedures were continued until a minimum of 232 surveys of useable data were collected.

The initial participant pool consisted of 502 participants. Six participants were omitted because they reported they were between 12 and 17 years of age. Additionally, 71 cases were omitted for only answering the age disqualifier question, 109 for only responding to some or all of the demographic questions, 57 for only responding to some or all of the HMS, 3 for missing more than 15% on the HMS, and 10 for missing more than 5 measures. Additionally, the data from three participants were deleted because they identified as straight with exclusive sexual behavior with another gender. One participant was omitted for incorrectly answering all three validity questions. Preliminary analysis also indicated six cases as multivariate outliers and three as univariate outliers. After these cases were deleted, the final sample used for the main analysis was 233.

### **Survey Procedures**

Once a participant clicked on the hyperlink provided in the study invitation or entered the survey link in their web browser, they were directed to the study's informed consent page (Appendix J). The informed consent page explained the intention of the research, the terms of participation, and highlighted that participation was voluntary.

Participants were also informed that there was no personal benefit to them for participating. They were asked to complete an anonymous online survey via Qualtrics website that would take approximately 20-30 minutes. Once the survey was complete, participants were offered the opportunity to enter into a raffle for 10 \$20 gift cards to Target. Procedures for ensuring confidentiality included having participants access the survey through a secure hypertext, not collecting identifying information, and having a separate raffle database. The participant's survey data were not connected with their raffle entry and IP addresses were only recorded to inform the researchers of repeat responders. Procedures for this online survey were based on published recommendations (Buchanan & Smith, 1999; Michalak & Szabo, 1998). The individual measures were randomized (items within the measures were not randomized) as they were presented to the participants. Statements of encouragement were placed approximately one-third and two-thirds within the survey to encourage survey completion. Validity checks were also added within the survey to ensure participants were attending to the questions (validity checks were added to the LBGIS, SHS, and the SID). The researcher identified the raffle winners and contacted them within three months of the close of the data collection procedures.

### **Statistical Analysis**

Structural Equation Modeling (SEM) is a statistical methodology that analyzes casual relationships among measured and latent variables (Bryne, 2013). On the basis of theory and empirical research, hypotheses are developed prior to statistical testing. Bryne (2013) noted that the term SEM conveys two important components of this analytic process. First, the casual aspects under study are characterized by a sequence of structural

(e.g. regression) equations; and secondly, these structural associations may be modeled graphically to enable a clearer conceptualization of the hypothesized associations.

Additionally, participants' data will only be used if they correctly answer two out of the three validity questions.

Prior to the primary data analysis, the data were screened and cleaned for missing data, and examined for violations of assumptions (e.g. normality, linearity, homoscedasticity, homogeneity of variance) as recommended by Tabachnick and Fidell (2013). SEM was used for the central data analysis technique. SEM is an overall term "that has been used to describe a large number of statistical models to evaluate the validity of substantive theories with empirical data" (Lei & Wu, 2007, p. 33). Lei and Wu noted that every SEM analysis goes through the phases of model specification, data collection, model estimation, model evaluation and (perhaps) model modification.

SEM allows for a confirmatory approach that includes developing hypotheses prior to statistical testing and permits for analysis of causal patterns among unobserved variables (latent variables) represented by multiple measures (measured variables; Fassinger, 1987). One of SEM's greatest advantages is that it allows for measurement error to be added to the model. By explicitly modeling measurement error, SEM seeks to derive impartial approximations for the associations between latent variables (Fassinger, 1987).

In SEM, there are two types of models being assessed: a measurement model and a structural or path model (Kline, 2010; Lei & Wu, 2007). The measurement model signifies the degree to which the measures capture the substance of the latent variables. These measured variables provide access to the unmeasurable latent variable. Using

multiple markers, or measures, allows for more control over the inevitable measurement error of any latent variable – and allows for the capture of more of the latent variable (Meyers, Gamst, & Guarino, 2006). Once the measurement model has been created, structural associations of the latent variables are then modeled (Lei & Wu, 2007).

The structural model evaluates the relationships between latent variables (Meyers, Gamst, & Guarino, 2013). Once a model is hypothesized, a correlation/covariance matrix is created and used in the analysis. The approximations of the interactions between the variables in the model will be calculated using the maximum likelihood estimation procedure (Tabachnick & Fidell, 2013). SEM assesses how well the predicted interactions between the variables match the interactions between the actual variables. It has the capacity to assess both measurement model and the structural model simultaneously. If the two are consistent with each other, then the model can be considered a reliable description for the hypothesized relationships. This informs us of the overall fit of the model (Meyers et al., 2013).

Finally, bootstrapping was used to test the significance level of the indirect (mediated) effects (Shrout & Bolger, 2002). The bootstrap procedure is a suitable and recommended method for testing the significance level of the indirect effects in mediation models (Shrout & Bolger, 2002; Mallinckrodt, Abraham, Wei, & Russell, 2006).

## CHAPTER IV

### RESULTS

This chapter provides a review of the results, including preliminary analyses and a summary of the main analyses discussing the five hypotheses. Data were analyzed using SPSS (22) and AMOS (22). As stated in the methodology, descriptive analyses demonstrated that the sample consisted of 233 participants who self-identified as adult sexual minority individuals, with an average age of 42.3 ( $SD=15.83$ ). The majority of participants were female (48.5%), Caucasian (85%), and exclusively gay or lesbian (51.4%).

#### Preliminary Analyses

Prior to the main analyses, preliminary analyses of the data included an examination of assumptions. Multivariate and univariate outliers were investigated first. Six multivariate outliers and three univariate outliers were identified and deleted from the data set. The data were then screened for normality and linearity. Skewness and kurtosis values met the standards for statistical assumptions. Ranges between -.426 to 1.12 for skewness, and -.82 to .24 for kurtosis demonstrated that the data approximated a normal distribution (Tabachnick & Fidell, 2013). Box's M test was used to explore multivariate normality, which is an assumption when using SEM (Bryne, 2010). The significance value of .18 (HMS current) and .59 (HMS impact) with the dependent variables indicated that the data did not differ significantly from multivariate normal.

No scale was missing more than 10% of its values. One scale had missing data (HMS impact) on 11 cases (4.72%). According to Parent (2013), because missing data

was less than 10%, mean substitution or multiple imputation was not necessary as the advantage of administering a scale-level imputation procedure would be minimal.

Means, standard deviations, Cronbach's alphas and intercorrelations (Table 1 and 2) were explored for the study variables. Cronbach's alphas for the scales ranged from .81 to .97, well within acceptable limits. Analyses were conducted with the demographic variables and main study variables to determine potential covariates. Pearson's  $r$  was used to examine both continuous and categorical (after dummy coding) variables. Age, length of time identified as a sexual minority to self, and length of time identified as a sexual minority to others were correlated with the dependent variables. These three variables were used as covariates in the analysis. Specifically, age was correlated positively with happiness ( $r = .29, p < .001$ ), implying that younger participants reported less happiness. The length of time participants reported being out to themselves was correlated positively with happiness ( $r = .24, p < .001$ ), implying that participants who reported a greater length of time out to themselves reported more happiness. The length of time participants reported being out to others was correlated positively with happiness ( $r = .28, p < .001$ ), implying that a greater length of time out to others was related to greater levels of happiness.

### **Main Analyses**

The hypothesized model was tested using SEM in AMOS. The primary goal of SEM is to test and estimate relations within two models: the measurement model and the final structural model. First, the measurement model was examined using confirmatory factor analysis (CFA) to see if the data fit the model (Meyers et al., 2013). The measurement model was reexamined several times until fit indices were appropriate.



Then, the structural model was tested for the mediation hypotheses, as well as employing a bootstrapping method to test the significance level of the indirect (mediated) effects (Shrout & Bolger, 2002). Lastly, the hypotheses were reviewed.

The data were exported from SPSS (22) to AMOS (22) to review the factor structure for the measurement model using CFA. The indices used to examine fit were the Comparative Fit Index (CFI), the Root Mean Square (RMSEA), and the Standardized Root Mean Square Residual (SRMR). The recommended value for CFI is .90 or greater (Meyers et al., 2013). For RMSEA, 0.01, 0.05, and 0.08 have been used to indicate excellent, good, and mediocre fit, respectively (MacCallum, Browne & Sugawara, 1996). With regards to SRMR, a value less than .08 is considered a good fit (Hu & Bentler, 1999). Maximum Likelihood, a method of estimating the parameters of a statistical model, was used to estimate the parameters of the model.

### **Measurement Model**

The dependent variable in this model, PWB, was represented by Ryff's measure of PWB, the SHS, and the SWLS. The independent variable, sexual orientation microaggression (SMM) was represented by HMS current and HMS impact. The mediators were: 1) internalized heterosexism (IH), was represented by the IHP, the SID, and the LGBIS-IH; 2) emotion regulation, represented by rumination, cognitive reappraisal, and suppression; and 3) expectations of rejection, represented by the expectations of rejection scale, the stigma consciousness questionnaire (SCQ), ingroup disadvantage, and discrimination anxiety. The measurement model was estimated with maximum likelihood. The covariates (age, length of time participants reported being out

to self and length of time out to others) were allowed to correlate with all latent variables in the model.

The results of this model revealed that the covariance matrix was not positive definite. A not positive definite covariance matrix may signal a perfect linear dependency of one variable on another (Wothke, 1993). After inspection of the model estimates, HMS impact was highly correlated with SMM ( $r = .97$ ). Therefore, the HMS impact indicator was removed and three parcels for HMS current were created. The model was tested and the covariance matrix was still not positive definite. Additionally, not positive definite results can occur because of: a) violations of the assumption of multivariate normality (Box's M test was not significant indicating multivariate normality), b) sample size is too small (the sample size met the power requirement), and c) collinearity (in this study, the highest correlations between the latent variables was .70; when  $R^2$  is  $> .90$ , this indicates collinearity [Meyers et al., 2013]). All of these possibilities were reviewed and ruled out as the cause of the error.

Upon further inspection, the standardized regression weights for cognitive reappraisal ( $\beta = .1, p < .05$ ) and suppression ( $\beta = .1, p < .05$ ) were not significant, indicating that these two indicators were not suitable indicators for the LV emotion regulation (Bryne, 2010). Several modifications were made to correct this, beginning with verifying that the indicators were correctly scored. Reappraisal was removed from the model and fit remained poor. Additionally, reappraisal was reversed scored and fit remained poor. Finally, the reappraisal and suppression measures were examined at the item level to identify acceptable factor loadings. No items loaded negatively, but a number of items were  $\leq .5$  (reappraisal item #6 = .33, suppression item #3 = .5). These

items were eliminated and the error remained. Based upon the low standardized regression weights of the EQR scale and numerous attempts to correct the not positive definite error, the emotion regulation construct was removed from the model. The third indicator, rumination, only contained five items, which was too few items to parcel.

The second measurement model (with the emotion regulation construct removed) was tested and the result of this modification was a measurement model that ran with no errors and produced moderately good fit indices. The fit indices were:  $\chi^2(72, N = 233) = 182.61, p < .001$ ; CMIN/DF = 2.54; CFI = .95; RMSEA = .08 (90% confidence interval [CI]: .07, .1); SRMR = .07.

A recommendation to possibly improve measurement model fit is to remove nonsignificant correlations from the model (Meyers et al., 2013). Five correlations were identified as nonsignificant (length of time out to self and IH, length of time out to self and PWB, length of time out to others and PWB, age to IH, and age to PWB) and were removed. The model was retested and fit indices did not improve overall:  $\chi^2(77, N = 233) = 191.4, p < .001$ ; CMIN/DF = 2.47; CFI = .95; RMSEA = .08 (90% confidence interval [CI]: .07, .09); SRMR = .09. Therefore, the correlations were left as part of the measurement model.

After further inspection, one indicator, the expectations of rejection scale, had a standardized regression weight of .56. This indicator was removed from the expectations of rejection latent variable, the measurement model was run again and the fit indices improved:  $\chi^2(59, N = 233) = 139.06, p < .001$ ; CMIN/DF = 2.36; CFI = .96; RMSEA = .08 (90% confidence interval [CI]: .06, .09); SRMR = .06. This became the final

measurement model. Factor loadings and correlations among the latent variables for the final measurement model are presented in Table 3 and 4.

### **Structural Model**

One common way to establish mediation is to show a direct effect between the exogenous variable (SMM) and the outcome variable (PWB) that can be mediated. Examination of the direct relationship between SMM and PWB revealed that the path was significant ( $\beta = -.25, p < .05$ ), indicating that a possible path for mediation was present.

The SEM structural model analysis (see Figure 1, Model 1) was carried out to examine mediation of the relationship between SMM and PWB. Covariates were added to the hypothesized model and directed to correlate with one another and with the exogenous variable (SMM) and all the endogenous variables (IH, expectations of rejection, and PWB). The results of the structural model demonstrated that the model was a good fit to the data:  $\chi^2 (60, N = 233) = 139.07, p < .001$ ; CMIN/DF = 2.32; CFI = .96; RMSEA = .07 (90% confidence interval [CI]: .06, .09); SRMR = .06). The results indicated that the paths from SMM to IH ( $\beta = .25, p < .05$ ), IH to PWB ( $\beta = -.42, p < .05$ ), SMM to expectations of rejection ( $\beta = .75, p < .05$ ), and expectations of rejection to PWB ( $\beta = -.42, p < .05$ ) were significant, implying mediation effects. The path from SMM to PWB ( $\beta = .18, Z = .13, p < .05$ ) was not significant with the mediators in the model. In addition, the squared multiple correlation for PWB ( $R^2 = .30$ ) indicated that the variables in the model accounted for almost one-third of the variance in PWB scores. Six percent of the variance in IH and 56% of the variance in expectations of rejection were explained by SMM.

Two alternative models were tested. The first alternative model (model 2) consisted of SMM predicting expectations of rejection, which in turn predicted IH, which then predicted PWB (see Figure 2). The indirect effect of expectations of rejection on PWB was also left in this model. This model is theoretically congruent with Hatzenbuehler's model, in that distal stigma-related stressors (SMM) initiates group-specific processes (expectations of rejection and IH), which lead to mental health outcomes (PWB). The main difference in this model was that expectations of rejection predicted IH. The fit statistics of this model were nearly identical to that of the first structural model ( $\chi^2(60, N = 233) = 142.77, p < .001$ ; CMIN/DF = 2.4; CFI = .96; RMSEA = .08 (90% confidence interval [CI]: .06, .09); SRMR = .06). The results indicated that the paths from expectations of rejection to IH ( $\beta = .22, p > .05$ ) and SMM to PWB ( $\beta = .18, p > .05$ ) were not significant, implying no mediation effects from SMM to PWB through ER to IH. The path from SMM to PWB through expectations of rejection remained significant, implying mediation effects. Almost identical to model one, the variables in the model accounted for 31% of the amount of variance in PWB scores. Additionally, 5% of the variance in IH and 57% in expectations of rejection was explained by SMM.

The second alternative model (model 3) consisted of SMM predicting IH, which in turn predicted expectations of rejection, which then predicted PWB (see Figure 3). The indirect effect of IH on PWB was also left in this model. The fit statistics of this model showed that the data were not a good fit to the model:  $\chi^2(60, N = 233) = 259.73, p < .001$ ; CMIN/DF = 4.33; CFI = .90; RMSEA = .12 (90% confidence interval [CI]: .11, .14); SRMR = .15). The path from IH to ER remained not significant ( $\beta = .22, p > .05$ ), as

well as the direct path from SMM to PWB ( $\beta = .08, p > .05$ ). The path from SMM to PWB through IH remained significant, implying mediation effects.

To further investigate the best fitting model, the direct path from SMM and PWB was removed from all three models. Fit indices and squared multiple correlations remained almost identical (see Table 5 for summary). Based upon the results of the alternative models, the best fitting model was model 1. Paths that were not significant in model 2 and 3 remained significant in model 1.

Additionally, Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) were referenced to aid in assessing the best fitting model. Smaller AIC and BIC values indicate better fitting models. Burnham and Anderson (2002) identified specific guidelines regarding AIC values when comparing models. They reported AIC differences of less than or equal to 2 indicate no significant difference, differences between 3–9 indicate some difference, and differences greater than 10 provide strong evidence of difference. Raftery (1995) identified specific guidelines regarding BIC values. He reported BIC differences of less than or equal to 2 provide weak evidence of difference, differences between 2–5 indicate some difference, differences between 6–9 provide strong evidence of difference, and differences greater than 10 provide very strong evidence of difference. For model one, AIC and BIC were 257.07 and 6238.49, respectively. For model two, AIC and BIC were 260.77 and 6242.82, respectively. The differences in AIC (3.7) and BIC (4.33) values between models indicated that the models have some differences. As result, model one was identified as the best fitting model because of its smaller AIC and BIC values. Model one was used to test the significance of the indirect effects.

### **Significance Levels of Indirect Effects**

To test the significance levels of indirect effects, bootstrapping was employed. The bootstrap procedure is a suitable and recommended method for testing the significance level of the indirect effects in mediation models (Mallinckrodt et al., 2006; Shrout & Bolger, 2002). Bootstrapping is a non-parametric method based on resampling with replacement; for example, resampling 1000 times. From each of these samples the indirect effect is calculated and a sampling distribution can be empirically created. Shrout and Bolger (2002) stated that an indirect effect is statistically significant at the .05 level if its confidence interval does not include zero. Structural model 1 was tested with 1000 bootstrap samples to compute bias-corrected 95% confidence intervals (BC 95% CI) for indirect effects (Cheung & Lau, 2008). AMOS does not allow missing data for computation. Therefore, raw data was not used for testing the significance level of the indirect effects. The Monte Carlo (parametric bootstrap) method of bootstrapping was used with a covariance matrix. Both of the indirect effects were significant, showing mediation. The indirect effect from SMM to PWB via expectations of rejection ( $b = .004$  [BC 95% CI: -.54, -.12],  $\beta = .75 \times -.44 = -.33$ ) was significant. The second indirect path investigated SMM to PWB via IH ( $b = .001$  [BC 95% CI: -.19, -.04],  $\beta = .24 \times -.42 = -.18$ ), was also significant. These values are congruent with Shrout and Bolger's (2002) guidelines for what qualifies an indirect effect as significant.

### **Hypotheses Testing**

The five main hypotheses of the study were based on IH, expectations of rejection and emotion regulation mediating the relationships between SMM and PWB. The SEM analyses above provided the results related to the five hypotheses.

**Hypothesis 1:** Internalized heterosexism mediated the relationship between experiences of SMM and PWB. The hypothesis was supported as the indirect effect between SMM and PWB via IH was significant. The predicted indirect effect on PWB through IH was supported.

**Hypothesis 2:** Expectations of rejection mediated the relationship between experiences of SMM and PWB. The hypothesis was supported as the indirect effect between SMM and PWB through expectations of rejection was significant.

**Hypothesis 3:** Emotion regulation mediated the relationship between experiences of SMM and PWB. This hypothesis was not tested as the emotion regulation latent variable was not included in the structural model.

**Hypothesis 4:** Sexual minority microaggressions were correlated negatively with emotion regulation and correlated positively with expectations of rejection and IH. Sexual minority microaggression indicators (HMS current and HMS impact), via Pearson's  $r$  (Table 1), were not correlated negatively with the emotion regulation indicators (cognitive reappraisal, suppression, and rumination). Thus, this portion of the hypothesis was not supported. Sexual minority microaggression indicators were correlated positively with expectations of rejection and IH indicators. Additionally, SMM was correlated positively with expectations of rejection and IH via significant paths in the structural model.

**Hypothesis 5:** Sexual minority microaggressions were correlated negatively with PWB. This was confirmed through Pearson's  $r$  correlation. Additionally, the direct path from SMM to PWB (when the mediators were not included in the model) was significant.

### Summary



The final analyses supported three of the five predicted hypotheses, with partial support for hypothesis four. The exogenous variable (SMM) demonstrated meaningful relationships with both mediators, expectations of rejection and IH, and the endogenous variable (PWB). The structural model supported two mediation effects of expectations of rejection and IH mediating the relationship between SMM and PWB. A discussion of the study's findings will be presented in Chapter five.

## **CHAPTER V**

### **DISCUSSION**

Research on the effects of subtle discrimination has surged into focus highlighting the insidious nature of this specific type of discrimination. The results of this study indicated, like overt forms of discrimination, that subtle discrimination can have negative effects on well-being. An online data collection method was used to gather data from a sample of 233 sexual minority individuals to explore the potential mediating effects of internalized heterosexism (IH), expectations of rejection, and emotion regulation of the relationship between sexual orientation microaggressions (SMM) and psychological well-being (PWB). The findings indicated that IH and expectations of rejection mediated the relationship between SMM and PWB. Sexual minority microaggressions were also correlated with several other study variables. Other findings, along with research and clinical implications, and areas for future research are discussed.

#### **Discussion of Findings**

To explore and explain the relationship between SMM and PWB in the context of Hatzenbuehler's (2009) framework, a mediation model was hypothesized that specifically investigated the role of group-specific processes and general psychological processes on well-being. Initially, it was predicted that IH, expectations of rejection, and emotion regulation would operate as mediators and explain the decrease in PWB as a function of SMM. The main analyses revealed that group-specific processes (proximal stressors) mediated the association of distal stigma-related stressors and mental health outcomes. More specifically, IH and expectations of rejection were found to mediate the relationship between SMM and PWB. Emotion regulation was not tested as a mediator.

The findings demonstrated support for two of the paths of the hypothesized model. The experience of microaggressions reduced an individual's well-being by increasing the individual's negative view of self (IH) and increasing the individual's expectation that they will experience future discrimination (expectations of rejection). The relationship between SMM and PWB was only significant when the mediators were removed from the model, indicating that the mediators explained the significance in the association between SMM and PWB. These findings highlight the important nature of subtle discrimination in the lives of sexual minority individuals, and a possible link to its effect on well-being. This study extends the existing literature that SMM has an effect on psychological outcomes (e.g. Sarno & Wright, 2013; Woodard et al., 2014; Wright & Wagner, 2012), specifically emphasizing the association between subtle discrimination and well-being. Not only does violence and aggressive acts of discrimination have an adverse effect on a person's well-being, but these findings demonstrate that subtle forms of discrimination also have deleterious consequences for sexual minority individuals in that reports of high SMM, lead to increased expectations of rejection and increased IH, which lead to lower reports of PWB.

Internalized heterosexism has been thoroughly investigated as it relates to psychological distress, including several studies examining its role as a mediator of the discrimination and distress link (e.g. Szymanski & Ikizler, 2012). There is less research focusing on IH as a mediator in the stigma-related stress and well-being association. In this study, IH functioned as a mediator related to the relationship between SMM and PWB and revealed that IH accounted for a modest amount of the variance in PWB. Szymanski and Ikizler (2012) reported that IH mediated the relationship between

heterosexist discrimination and depression. Denton et al. (2014) also reported that experiences of discrimination (distal minority stressors) were significantly related to increased levels of IH, which then predicted lower coping self-efficacy. These two studies, in combination with the current, lend support for Hatzenbuehler's (2009) psychological mediation framework. A critical distinction of this study though, investigated IH as a mediator related to PWB. Investigating well-being (over distress) focuses on identifying avenues that enhance well-being versus avenues that decrease distress. Decreasing distress cannot be conceptualized as the equivalent to increasing well-being.

This research has extended the empirical research highlighting expectations of rejection as a proximal minority stressor which mediates the association of stigma-related stress and mental health outcomes. Liao et al. (in press) reported that expectations of rejection mediated the relationship between perceived discrimination and anger rumination and self-compassion, which in turn, predicted psychological distress. Denton et al. (2014) reported that distal minority stressors were significantly associated with higher levels of expectations of rejection, which, in turn, predicted significantly lower coping self-efficacy. Feinstein et al. (2012) found that the relations of experiences of discrimination and depressive and social anxiety symptoms were mediated by IH and rejection sensitivity (similar construct to expectations of rejection). Expectations of rejection has also been linked to a decrease in PWB for members of stigmatized groups because it represents the recognition that one's ingroup is rejected by the majority and that the ingroup's life opportunities are restricted in a way that the opportunities of others are not (Schmitt & Branscombe, 2004). Consistent with the findings from this study,

expectations of rejection was correlated positively with decreases in PWB. As sexual minority individuals learn to anticipate prejudicial experiences, subtle or overt, they may attempt to ward off this anticipation by remaining vigilant. The more a person perceives experiences of discrimination, the greater the need for vigilance in interactions with dominant group members, thus decreasing well-being. Subtle discrimination may even heighten that vigilance because of its ability to be insidious.

One main goal of this study was to identify the relationship between subtle discrimination and other study variables. With little focus in the literature investigating SMM quantitatively, this information is important as it can inform future research. The experience of SMM was associated with increases in IH and expectations of rejection and decreases in PWB. Additionally, the frequency and impact of SMM correlated positively with rumination and suppression, implying that rumination and suppression increased as the frequency of discrimination increased. Unexpectedly, cognitive reappraisal was correlated positively with SMM, indicating that as the frequency of microaggressions increased, so did cognitive reappraisal. Theoretically, this is inconsistent with Hatzenbuehler's (2009) report that experiences of discrimination would lead to deficits in emotion regulation. Future investigation is needed regarding cognitive reappraisal.

The alternative models examined in this study investigated whether IH or expectations of rejection predicted the other when assessing the relationship between SMM and PWB. Hatzenbuehler's (2009) framework identified bidirectional hypotheses between group-specific process (e.g. expectations of rejection and IH) and general psychological process (e.g. coping and emotion regulation); that there is an interaction between group-specific processes and general psychological processes. His framework

does not comment specifically on the possible interaction between one proximal stressor with another proximal stressor (i.e. IH with expectations of rejection). Specifically in this study, the first alternative model examined if SMM lead to increases in expectations of rejection, which would then lead to increases in IH, and in turn, would lead to decreases in PWB. Both of the alternative models tested (IH to expectations of rejection and vice versa) revealed that the paths between IH and expectations of rejection were not significant. This finding may indicate that a proximal stressor does not predict another proximal stressor in the stigma-related stress – psychopathology link. Specifically, IH and expectations of rejection did not predict the other when predicting PWB as a result of SMM. Though IH and expectations of rejection were modestly correlated in this study, the findings lend support to Hatzenbuehler's (2009) framework in that group-specific processes (e.g. expectations of rejection and IH) interact with general psychological processes, and not with each other (proximal with proximal).

In addition to the main analyses, the results revealed significant relationships among three demographic variables (age, length of time out to self, and length of time out to others) with the main study variables. As age increased, the frequency and impact of subtle discrimination decreased, happiness increased, and the expectation of rejection decreased. Similarly, the same directional relationship occurred as length of time out to self and others increased. One avenue for sexual minority individuals to repel forms of subtle discrimination is through community involvement and social support (Barker, Herdt, G, & de Vries, 2006). As age and length of time out to self and others increased, there becomes more opportunities for increasing social support, which may mitigate some of the effects of stigma-related stress. In contrast though, stigma-related stress could

weaken sexual minorities' social support because it may lead them to isolate themselves from others in hopes of avoiding future rejection (Link, Struening, Rahav, Phelan, & Nuttbrock, 1997). Sexual minority individuals may conceal their sexual orientation in an effort to protect themselves from harm (D'Augelli & Grossman, 2001). Concealment is an important area of stress for sexual minority individuals and learning to hide becomes a coping strategy. This strategy prevents sexual minority individuals from identifying and connecting with others who identify as sexual minority individuals; thus, increasing isolation in hopes of avoiding future rejection. Two other studies investigating mediators in the stigma-related stress and mental health outcomes association utilizing Hatzenbuehler's (2009) framework controlled for demographic variables (Liao et al., in press; Denton et al., 2014). Liao et al. controlled for age, education and years identifying as LGB, whereas Denton et al. controlled for education and income level. The findings from this study, in combination with the two previous mentioned studies, indicate that discrimination may have a specific effect on outcomes for certain groups of sexual minority individuals. Education level, for example, could be investigated as a moderator; as a person's education level increases, their range of available coping skills increases, which would potentially decrease the negative effects of discrimination. It would also be interesting to examine if education level has the same effect for different types of discriminatory experiences. For example, education level may not be related to a person's well-being when they experience aggressive discriminatory experiences because overt discrimination can be different than subtle discrimination in that subtle discrimination is usually repetitive, hidden, unacknowledged, discounted, and sometimes unintentional. These qualities about subtle discrimination may have a greater effect on well-being for

those whose education level is low because of the sheer fatigue of frequently encountering subtle discrimination. Future research is needed to explore the moderating effects of these demographic variables as they relate to the relationship of stigma-related stress and well-being.

Hatzenbuehler (2009) identified IH and expectations of rejection as group-specific processes in that these experiences are unique to sexual minority individuals. He identified coping and emotion regulation as general psychological processes in that the general population may experience deficits in these areas. He suggested the investigation of emotion regulation strategies, specifically highlighting suppression. The original hypothesized mediation model in this study that included emotion regulation (with rumination, cognitive reappraisal, and suppression as indicators) proved to be a poor fit to the data. Two of the emotion regulation indicators were from the Emotion Regulation Questionnaire (EQR), which was intended to assess suppression and cognitive reappraisal. These subscales loaded at low values, indicating they did not capture the construct of emotion regulation. As a result, this construct needed to be removed from the model. The third indicator, rumination, loaded at good levels for SEM analyses, though it only contained five items. This small number of items was not enough to parcel to create additional indicators for SEM analyses. There is evidence though that rumination does mediate the relationship between stigma-related stress and mental health outcomes (Hatzenbuehler, Nolen-Hoeksema et al. 2009).

With the removal of the emotion regulation construct from the model, it is unclear the role that emotion regulation played on well-being as a result of stigma-related stress. Additionally, it was not possible to explore the relationship between group-specific



processes and general psychological processes within the model. Consistent with Hatzenbuehler's (2009) assessment that there is little evidence exploring emotion regulation strategies as mediators, it is possible that emotion regulation as a construct is not specific enough when assessing mediation. Emotion regulation includes many possible strategies employed for regulating one's emotional response to situations. When this construct has been explored as a mediator, it has not been done combining specific emotion regulation strategies as was done in this mediation model. When Hatzenbuehler, Nolen-Hoeksema et al. (2009) investigated emotion regulation strategies in the stigma-distress association in a student and community sample of LGB and African American participants, they used the rumination subscale from the Ruminative Response Scale (RRS) to assess rumination and two items from the EQR suppression subscale to assess suppression (subscale has four items total) independently. They found that rumination, but not suppression, mediated the relationship between stigma-related stress and psychological distress. Focusing on emotion regulation in future studies is an area for further investigation.

This study provided support for Hatzenbuehler's (2009) psychological mediation framework and offered support for two proximal stressors as mediators. Expectations of rejection and IH were found to have significant paths in the structural model and accounted for 57% and 6%, respectively, of the variance in SMM scores on the HMS. Additionally, 30% of the variance in PWB scores was accounted for by study variables. These findings indicate that microaggressions decrease a person's well-being because one may begin to expect experiences in which he or she will be treated as second-class. Additionally, microaggressions decrease a person's well-being because one may

internalize negative views from the dominant culture about his or her sexual identity. Targeting clinical interventions that address these two concerns in therapy may lead to an increase in well-being. Most importantly, these findings validate that subtle forms of discrimination that operate in an inconspicuous or seemingly harmless way may have a grave effect on well-being.

### **Research Implications and Future Directions**

The results of this study imply that researchers need to put forth continued efforts to explore potential mediating variables of the association between stigma-related stress and outcomes in individuals who identify as sexual minorities. Specifically, SMM has only begun to be investigated quantitatively in the literature. The HMS assesses sexual orientation microaggressions and consists of 135 questions. This study used two of the HMS subscales for a total of 90 questions. Sixty participants dropped out while completing this measure, suggesting that this measure is tedious for participants. Future research is needed to explore alternative options to assessing SMM and developing a new scale to assess SMM.

Expectations of rejection has received much attention recently in the literature (e.g. Brewster et al., 2013; Denton et al, 2014; Liao et al., in press; Velez et al., 2013). Consistently, expectations of rejection has been associated with experiences of discrimination and as a mediator in the stigma-related stress and mental health outcomes relationship. As the evidence is building for the damaging effects of this proximal stressor on the mental health of sexual minority individuals, studies investigating the best counseling interventions are needed. Little is known about how clinicians need to specifically intervene when clients are experiencing high levels expectations of rejection.

Future research is needed to expand Hatzenbuehler's (2009) framework by exploring the relationship between general psychological processes and group-specific processes. For example, Liao et al.'s (in press) work established that general psychological processes (coping and emotion regulation), as a result of perceived discrimination, mediated the relationship between proximal stressors (expectations of rejection) and psychological distress. This study was unable to explore the possibility of the relationship between those processes because emotion regulation was not included in the main analyses. Further, the insignificant relationship found in this study between two group specific processes (proximal stressors - IH and expectations of rejection) potentially supports the bidirectional nature of the relationship between group-specific processes and general psychological processes by disconfirming the possibility that a proximal stressor would lead to another proximal stressor. Additionally, studies have investigated IH as a predictor variable leading to negative outcomes. When IH is shifted from the main predictor variable and treated as a mediator, the effect of the overall outcome may change, which may change possible clinical interventions. Further, expectations of rejection may lead sexual minority individuals to conceal their sexual identity, potentially decreasing their sources of social support. Investigating a mediation path in which concealment mediates the relationship between expectations of rejection and levels of social support would inform researchers about the relationship between proximal stressors; thus, furthering Hatzenbuehler's (2009) framework. Denton et al. (2014) investigated concealment motivation and reported that this strategy may be adaptive to expectations of rejection and IH because when one conceals their sexual orientation, one would potentially experience fewer situations to fear rejection from.

Denton et. al continued to explain that concealment motivation may be best understood as a coping strategy. With this suggestion, concealment motivation would then be treated as a psychological process related to coping versus a proximal stressor.

The study intended to explore how emotion regulation relates to experiences of discrimination and its contribution to mental health outcomes. As this question was not answered, future research needs to continue to explore this phenomenon. Only a handful of studies have investigated specific emotion regulation strategies as mediators in the stress/psychopathology association – and less than that in a sample of sexual minority individuals (e.g. Hatzenbuehler et al., 2009). Due to the challenges experienced in this study with the Emotion Regulation Questionnaire (EQR) reappraisal and suppression subscales loading poorly as indicators for emotion regulation, it is recommended an investigation of the psychometric properties of this measure with sexual minority individuals be conducted. To further understand emotion regulation, examining whether the ability to regulate emotional experiences moderates the relationship between discrimination and mental health and whether this moderation is present when mediators are added to the equation would be helpful. Future research needs to highlight how emotion regulation is assessed (measures/scales), the role of specific emotion regulation strategies (e.g. suppression, cognitive reappraisal, rumination) as mediators, and emotion regulation strategies as moderators.

### **Counseling Implications**

In Hatzenbuehler's (2009) psychological mediation framework, he noted the importance of his framework as a means to highlight possible intervention strategies with sexual minorities. He identified clinical implications for prevention as one of the critical

features of his framework. The meaningful factors identified in this study related to counseling implications are IH and expectations of rejection. The results of this study indicated that the effects of subtle discrimination may disrupt one's well-being in the form of negative views of the self and a preoccupation that more rejection is imminent. The challenge when working with expectations of rejection would be distinguishing between levels that are healthy and unhealthy. For example, though expectations of rejection in any amount could seem as detrimental to one's health, the reality is that someone who identifies as a sexual minority will continue to experience some level of discrimination. The anticipation of this rejection may serve as a protective factor. Clinicians will need to be aware and sensitive to this reality and note that ameliorating expectations of rejection completely may be detrimental to one's overall health and an unrealistic outcome for counseling.

In terms of IH, Kashubeck-West, Szymanski and Meyer (2008) suggested that raising awareness of IH for clients is a way to deconstruct heterosexism and liberate clients from experiences of oppression, thus decreasing their levels of IH. Szymanski (2005) and Szymanski and Chung (2003) both suggested the use of feminist strategies for facilitating awareness of IH. Such strategies include: attending to the sociocultural context, identifying, exploring, and challenging internalized negative messages, and facilitating social change (teaching clients skills for confronting oppression). Removing the focus from individual pathology to the oppressive systems acting upon clients may serve as a way to alleviate the heavy burden of experiencing IH. Several researchers and clinicians have suggested inquiring about clients' sexual identity development,

formulation, and conceptualization to facilitate client awareness of IH (e.g. Kashubeck-West et al. 2008; Szymanski, 2005).

Expectations of rejection, the anticipation that one will experience situations in which they are treated as second-class because of their sexual identity, can be conceptualized as similar to anxiety. When one expects to experience rejection, there is an underlying component of preoccupation with certain thoughts – rumination in some sense. Several cognitive behavioral strategies have been found useful in treating anxiety (Dobson & Dozois, 2010). Additionally, applying mindfulness-based interventions may also assist the client in learning new coping strategies to alleviate the intensity of expecting future rejection. Though it has not been examined, it could be hypothesized that these forms of intervention may help alleviate and decrease thoughts related to anticipating future experiences of rejection. It is imperative that clinicians validate this anticipation and not pathologize it as it serves many useful functions for the client. Additionally, as a result of expecting rejection, clients may become more vigilant in certain situations as a form of self-protection. Highlighting this aspect in therapy honors the resiliency of sexual minority individuals and validates survival mechanisms. Clinicians need to honor this expectation of rejection as it is a reality of living as a sexual minority, but also create hope that expecting rejection does not need to overpower the possible benefits that could be experienced as a result of identifying as a sexual minority person. It needs to be considered though, that expectations of rejection as a result of subtle discrimination may manifest differently than expectations of rejection which results from a different type of discrimination. Future research is needed to explore this.

Theoretically, the combination of CBT and feminist therapy would offer an effective way to work with IH and expectations of rejection in therapy. The basic techniques used in CBT (e.g. self-rating scales, self-monitoring, relaxing training, in vivo exposure, skills training, problem solving, generating alternative interpretations, reframing/restructuring, disputing unhelpful thoughts; Dobson & Dozois, 2010), and the feminist therapy focus on the individual as a member of a specific culture who is a “product of the sociopolitical forces acting upon them” (Evans, Kincade, & Seem, 2011, p. 2), would offer the client many avenues for coping with negative thoughts about the self and anxiety related to the anticipation of future rejection. Further, feminist therapy client conceptualization and treatment focus on the individual as well as any adjustment of the social, political, and economic structures that caused the clients’ pain and suffering (Evans et al., 2011). CBT, on the other hand, is devoted to affective and behavioral modification created by changes in cognitions within the client (Dobson & Dozois, 2010). Both are necessary when addressing concerns that arise as a result of oppression.

Specifically related to IH and expectations of rejection, CBT’s influences on feminist therapy include the ideas that what is learned can be unlearned and that belief systems can be changed through reframing and cognitive restructuring, as well as assertiveness training. Heterosexism is a belief system that must be challenged – unlearned from within the individual. Utilizing community resources, validating client’s experiences, challenging oppression, and conducting cultural, gender and power analyses are strategies that feminist therapy offers to clients as they work to deconstruct their experiences of heterosexism.

Clinicians need to consider assessing sexual minority clients' stigma-related stress experiences and the negative views of the self that they may have as a way to make meaning of those experiences. Clinicians may also need to assist their sexual minority clients with developing effective coping strategies for managing these negative views of the self and the expectation of experiencing rejection, thus building their available options for coping. Improving coping and decreasing IH and expectations of rejection, theoretically, will enhance well-being.

While intervening at the individual level will be useful for clients experiencing internalized heterosexism and expectations of rejection, it will be insufficient in preventing and dismantling proximal stressors that result from heterosexism.

Interventions targeted at the systemic level are needed to eradicate the idea that sexual minority individuals are second-class, thus decreasing the frequency that one would experience subtle discrimination. One avenue to begin to intervene at the systemic level would be to equip and train school administrators to effectively lead and develop affirmative attitudes and safer environments for sexual minority youth. By training administrators they could then begin to change the culture of a school.

### **Limitations**

Survey research is commonly subject to numerous threats to internal validity. Due to the correlational nature of this study, inferences about causality cannot be made. This study also focused narrowly on recently experienced accounts of subtle discrimination. Assertions regarding the long-term effect of subtle discrimination cannot be made from these findings.



The most pressing limitation of this study was with regard to its sample. The sample did not expand the field's knowledge of diverse groups of sexual minority individuals and how they experience subtle discrimination. The sample consisted of mostly Caucasian individuals with a majority reporting some form of higher education, which is consistent with existing research on sexual minority individuals. It is unclear how the findings of this study would generalize to different samples - for example, samples that included more racial diversity and lower education levels. Future studies need to be more intentional with study design and sampling procedures in order for results to be generalizable to more populations. Finally, this study was not able to expand the understanding how individuals who identify as transgender experience subtle discrimination. As several individuals in this study identified as transgender and experiencing some level of same-gender attraction, it would be remiss of researchers to assume that their experience is the same as someone who identifies as non-transgender and experiences same-gender attraction. Future research is needed to explore this subset of sexual minority individuals.

The sampling procedures of this study were a limitation. Almost half of the participants were recruited through Qualtrics. This type of recruitment may target a specific type of participant. For example, in order for Qualtrics and their third party partners to recruit sexual minority participants, the participant must have communicated his or her sexual minority identity. Based upon this, a researcher could infer that this type of participant had a longer length of time out to self and others. Additionally, nearly all of the participants from the Qualtrics sample identified as Caucasian.

With general online data collection means and the purchasing of data, there is an assumption that the participant is 'out' enough to identify as a sexual minority. When researchers make assertions about IH, for example, Croteau and colleagues (2008) stated that because some degree of self-identification and some connections to the sexual minority community are necessary to even receive recruitment for participation in most sexual minority research, it is difficult to recruit participants that display the full range of IH, especially when the research has shown that few participants score on the high end of IH scales. Croteau et al. (2008) further questioned how much stronger empirical findings may be if samples of sexual minority individuals included more participants on the high end of IH. They postulated that IH may be an even more potent destructive factor in people's lives than the current research shows. With IH only accounting for 6% of the variance in PWB in this study, Croteau et al.'s point needs investigation.

A concern related to survey research is the issue that individuals who volunteer for survey research are different in significant ways from those who do not volunteer. This study was limited to participants who volunteered their participation and had access to a computer and an email address. As a result of this, the results should not be generalized to the entire sexual minority population. Inferences about the study results can only be made regarding the specifics of the resulting sample (middle-aged, Caucasian, educated, average income). The current sample demographics were similar to comparable online studies of sexual minority women and men (e.g., Brewster et al. 2013; Denton et al., 2014; Szymanski & Carr, 2008). Future studies might examine this and similar mediation models in clinical samples and in larger, more diverse sexual minority

samples so to explore the effects of stigma on sexual minority people with multiple minority identities.

The degree of data deleted as a result of incomplete responses was a limitation in this study. Of the 502 participants surveyed who began the survey, only 233 cases (46.4%) had enough data to be utilized in the main analyses. Most cases that were dropped stopped answering the demographic questionnaire or the HMS. As mentioned above, the lengthy and tedious nature of the HMS was a limitation of this study. Additionally, anecdotally, several individuals who reported as bisexual shared with the researcher that the HMS did not accurately capture their experience as bisexual individuals. Using one measure to assess the unique experience of subtle discrimination for a very diverse group of individuals who fall under the term 'sexual minority' may not capture the range of experiences that occur within the different identities of the sexual minority community.

### **Summary**

A mediation model was hypothesized to investigate Hatzenbuehler's (2009) psychological mediation framework. Internalized heterosexism and expectations of rejection were found to mediate the relationship between SMM and PWB. These findings contribute to the documented link between experiences of subtle discrimination and decreases in well-being. The results highlighted the significant role of two proximal stressors, IH and expectations of rejection, in the relationship between SMM and PWB. These findings can be used in future research to further the field's understanding of the experiences of subtle discrimination with the hopes of creating targeted interventions toward the specific experience of sexual minority individuals.



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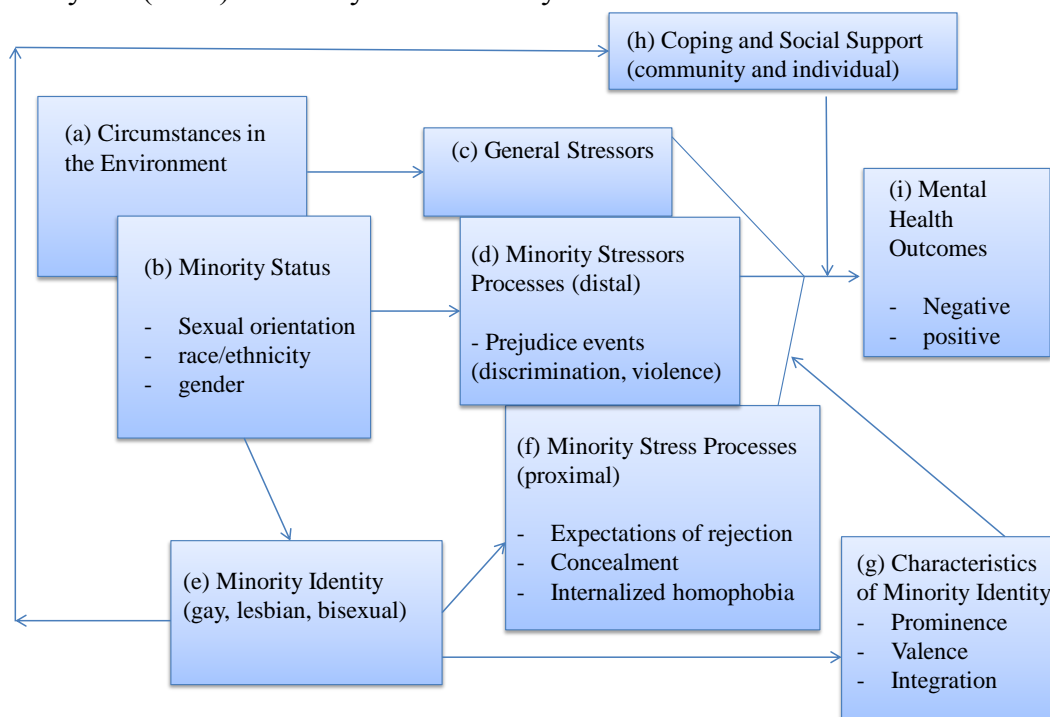
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## Appendices

### Appendix A - Meyer's (2003) Minority Stress Theory

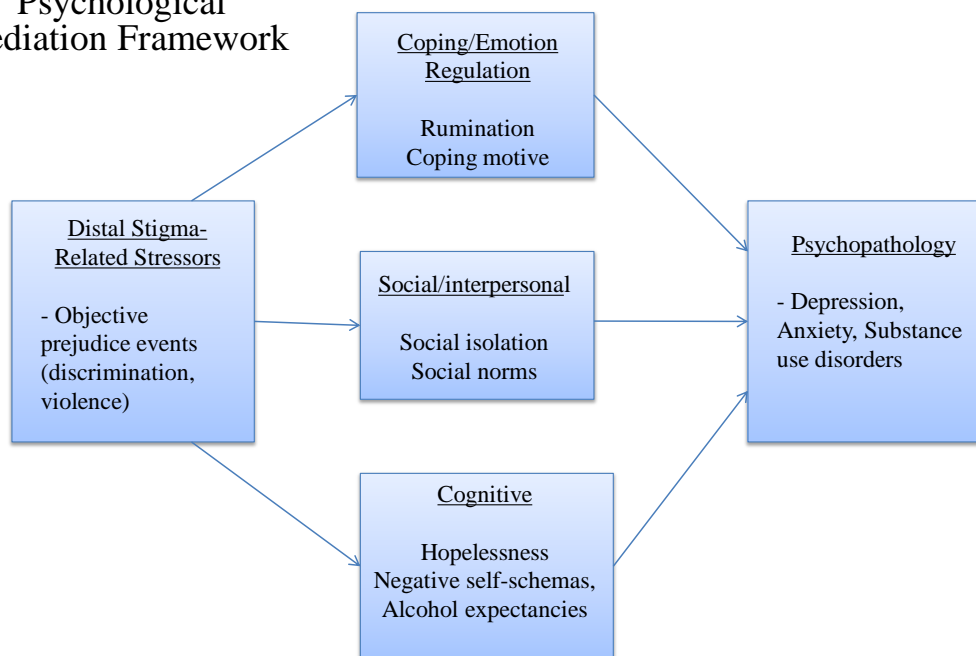
Meyer's (2003) Minority Stress Theory

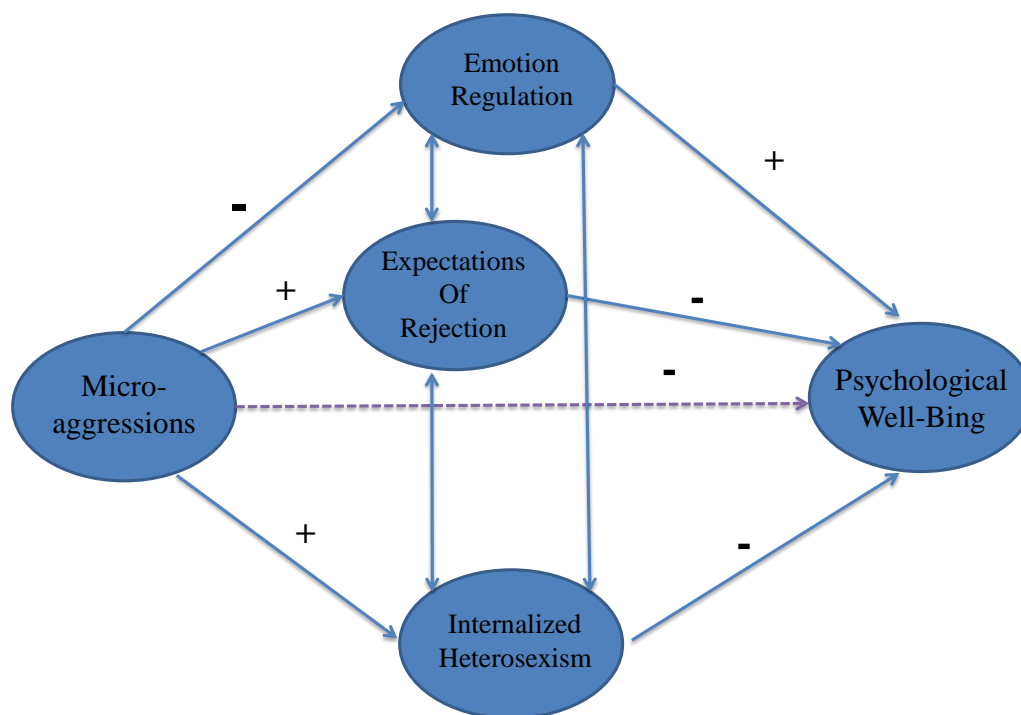




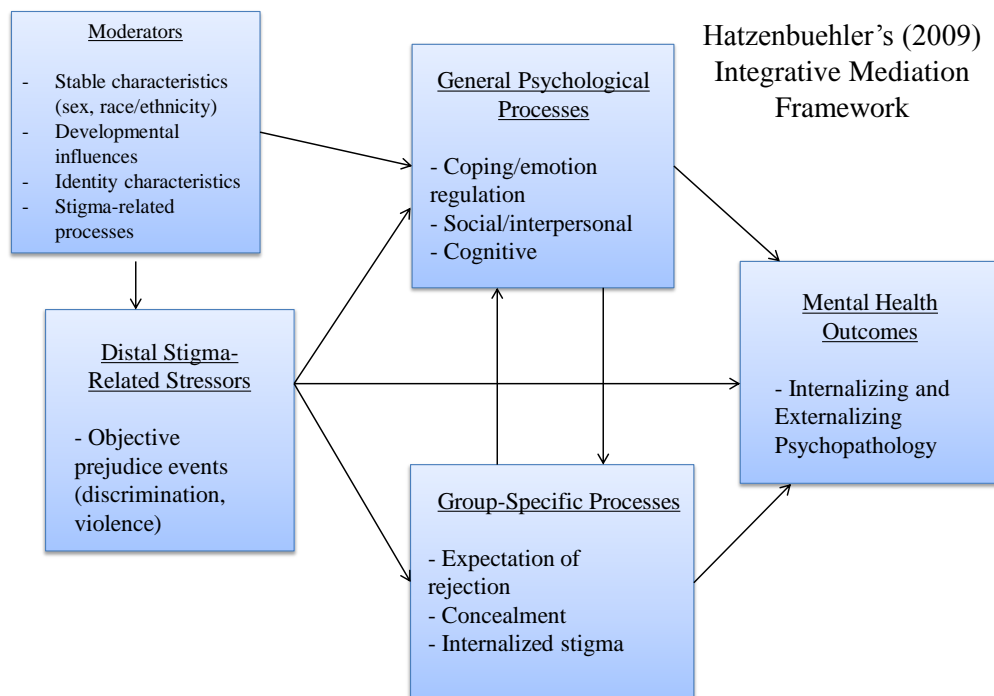
**Appendix B - Hatzenbuehler's (2009) Psychological Mediation Framework**

Hatzenbuehler's  
(2009)  
Psychological  
Mediation Framework



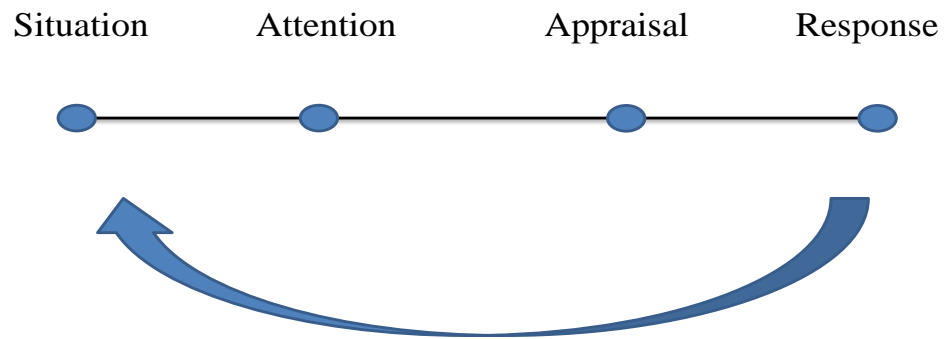
**Appendix C – Hypothesized Mediation Model**

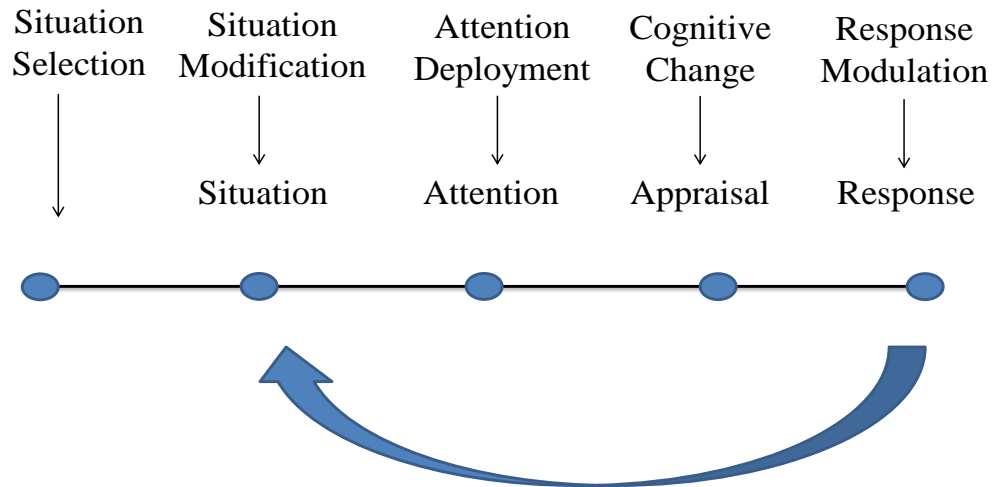
## Appendix D - Hatzenbuehler's (2009) Integrative Mediation Framework



**Appendix E - Gross's (1998a) Modal Model of Emotion Generation**

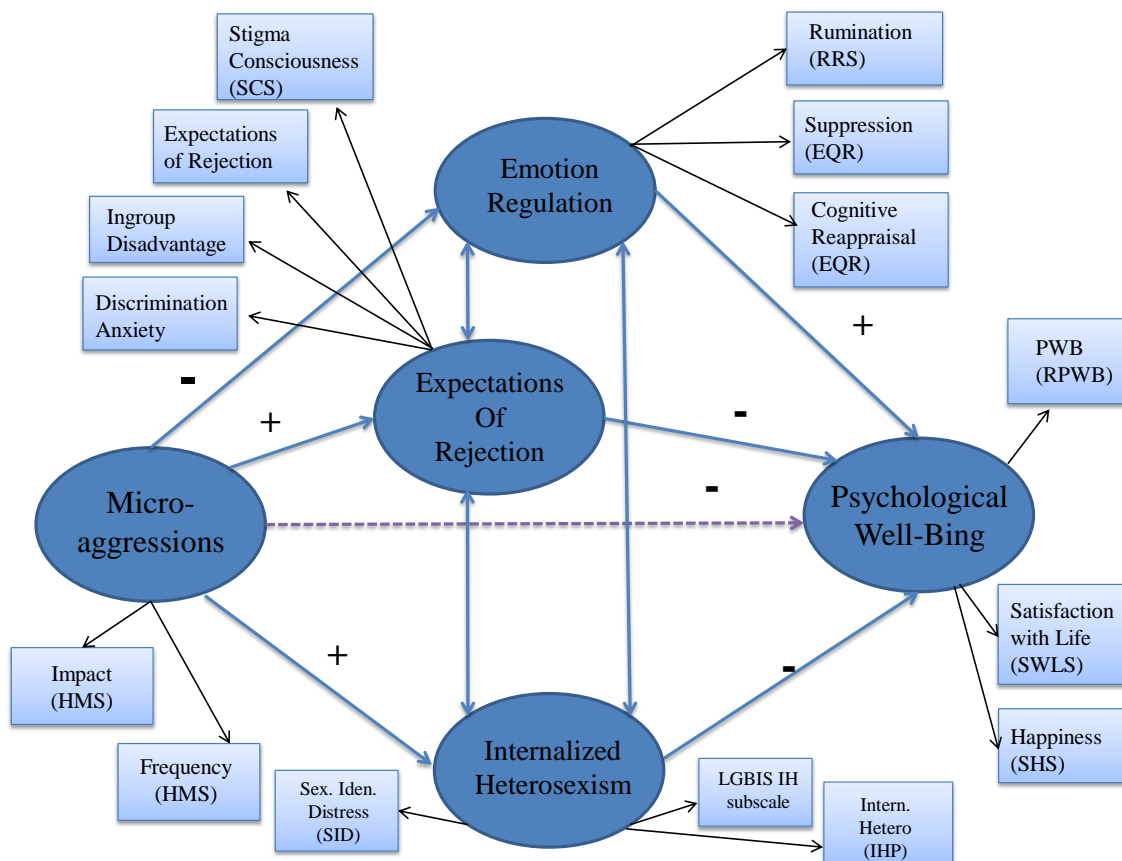
Modal Model of Emotion (Gross, 1998a)



**Appendix F - Gross's (1998b) Process Model of Emotion Regulation**

Process Model of Emotion Regulation (Gross, 1998b)

**Appendix G – Hypothesized Mediation Model with Measures**



## Appendix H – Survey Length Calculation

How to Calculate the Length of a Survey

Author: Jon Puleston

Posted: Tuesday, 3 July 2012

(Received from: <http://question-science.blogspot.com/2012/07/how-to-calculate-length-of-survey.html> Survey length =  $(W/5 + Q*5 + (D-Q)*2 + T*15)/60$ )

This is the most accurate way of doing it (though I recognize it take a quite a bit of work). This formula will give you the length of an English language survey in minutes.

**W = word count:** Do a word count of the total length of questionnaire (questions, instructions and options). An easy way to do this is to cut and paste the survey into word but don't forget to remove any coding instructions first and it will tell you the word count. Respondents read English in western markets at an average rate of 5 words per second.

**Q = Number of Questions:** Count how many questions the average respondent has to answer. Allow 4 seconds per question general thinking time and 1 second navigation time\* (assuming 1 question per page).

\*this may vary depending on survey platform if it takes longer than 1 second to load each page adjust accordingly

**D = Total number of decisions respondents have to make:** Count in total how many decisions the average respondent makes in total using this guide below and allow then 2 seconds per decision.

Single choice question = 1 decision

Multi-choice question = .5 of a decision per option

Grids = 1 decision per row

**T = Open ended text questions:** Count how many open ended text feedback questions a respondents has to answer and allow 15 seconds per question. (note this may vary quite dramatically based on the content of the question but on average people dedicate 15 seconds to answering and open ended question).

## Appendix I - Demographic Questionnaire

1. Age
  - a. (please specify)
2. Gender
  - a. Female
  - b. Male
  - c. Transgender
  - d. Genderqueer
  - e. If the options above do not accurately describe how you identify yourself, please share with us how you self-identify.
    - i. (Blank)
3. Please describe your race /ethnicity. You may check multiple boxes.
  - a. African American/Black
  - b. White/Caucasian
  - c. Hispanic-American/Latino/Chicano
  - d. Native-American/American Indian
  - e. Asian-American
  - f. Multiracial
  - g. If the options above do not accurately describe how you identify yourself, please share with us how you self-identify.
    - i. (Blank)
4. Sexual orientation
  - a. Exclusively Lesbian and Gay
  - b. Mostly Lesbian and Gay
  - c. Bisexual
  - d. Mostly Straight/Heterosexual
  - e. Exclusively Straight/Heterosexual
  - f. Pansexual
  - g. Queer
  - h. Questioning
  - i. Two-Spirit
  - j. If the options above do not accurately describe how you identify yourself, please share with us how you self-identify.
    - i. (Blank)
5. What do you consider to be your socioeconomic status?
  - a. Very low income/poverty level
  - b. Working class
  - c. Middle class
  - d. Upper middle class
  - e. Upper class
  - f. If the options above do not accurately describe how you identify yourself, please share with us how you self-identify.
    - i. Blank
6. What is your educational background?
  - a. Did not complete college



- b. Completed high school
  - c. Some college
  - d. Obtained an undergraduate degree
  - e. Some graduate school
  - f. Obtained Master's degree
  - g. Obtained doctorate / MD / JD
7. What is your current relationship status?
- a. Single, no partner
  - b. Dating occasionally
  - c. Dating seriously
  - d. In a committed relationship/married
  - e. Divorced/broken up
  - f. Widowed
  - g. If the options above do not accurately describe how you identify yourself, please share with us how you self-identify.
    - i. Blank
8. Are you currently out?
- a. No
  - b. Yes
    - i. To self (please specify in months and years)
    - ii. To others (please specify in months and years)
9. How would you define your sexual activity or behavior?
- a. Not sexually active with any gender
  - b. All with same gender
  - c. Mostly with same gender
  - d. More with same gender
  - e. Equally with all genders
  - f. More with another gender
  - g. Most with another gender
  - h. All with another gender
10. How would you define your sexual attraction?
- a. Not attracted to any gender
  - b. Totally attracted to same gender
  - c. Mostly attracted to same gender
  - d. More attracted to same gender
  - e. Equally attracted to all genders
  - f. More attracted to another gender
  - g. Mostly attracted to another gender
  - h. Totally attracted to another gender
11. Region where you live
- a. Northeast
  - b. Southeast
  - c. Southwest
  - d. Northwest
  - e. Midwest/Central
  - f. Other (please specify)

12. How did you hear about this survey?
- a. Email
  - b. Social media (Facebook, Yahoo groups, etc)
  - c. Friend
  - d. Other (please specify)

## Appendix J – Informed Consent



Division of Counseling and Family Therapy  
 University of Missouri - St. Louis  
 401 Marillac Hall  
 314-516-5782  
 St. Louis, MO

### Informed Consent for Participation in Research Activities

Subtle Discrimination and Well-Being

Participant \_\_\_\_\_ HSC Approval Number \_\_\_\_\_

Principal Investigator: Cori Deitz PI's Phone Number 314-599-0019

1. You are invited to participate in a research study conducted by Cori Deitz, graduate student in the Division of Counseling and Family Therapy at the University of Missouri – St. Louis under the supervision of Dr. Susan Kashubeck-West. You have been asked to help with this study because you have self-identified as lesbian, gay or bisexual (LGB), are 18 years or older, and were willing to complete the survey. We would like you to read this form before you complete the survey.
2. The purpose of this research is to understand how subtle forms of discrimination affect well-being.
3. After reviewing this consent form and if you volunteer to participate, you will be asked to complete an online survey. We estimate that this will take 20-30 minutes of your time to complete. Your survey will be kept anonymous and we will not know how you responded to the questions.
4. There are no anticipated risks associated with this research. Some questions may invoke feelings of discomfort, sadness, hurt or even anger. If you wish to stop the survey, please feel free to. If you would like to a list of resources in the community, our researchers can also provide that to you.
5. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge about the effects of subtle discrimination and may help the counseling field understand how to assist those who have experienced this discrimination. We hope that with your help we may find out more about the effects of subtle discrimination towards lesbian, gay and bisexual individuals.
6. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to

answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.

7. No personally identifiable information will be collected through the survey.
8. By agreeing to participate, you understand and agree that your data may be shared with other researchers and educators in the form of presentations and/or publications. In all cases, your identity will not be revealed. In rare instances, a researcher's study must undergo an audit or program evaluation by an oversight agency (such as the Office for Human Research Protection). That agency would be required to maintain the confidentiality of your data. In addition, all data will be stored on a password-protected computer and/or in a locked office.
9. If you have any questions or concerns regarding this study, or if any problems arise, you may contact the Investigator, Cori Deitz at [cm6bd@umsl.edu](mailto:cm6bd@umsl.edu) or Dr. Kashubeck-West at [Kashubeckwests@umsl.edu](mailto:Kashubeckwests@umsl.edu). You may also ask questions or state concerns regarding your rights as a research participant to the Office of Research Administration, at 516-5897.

**I have read this consent form and have been given the opportunity to ask questions. By clicking on the Continue button below, I consent to my participation in the research described above.**

---



---

Participant's Signature

Date

Participant's Printed Name

---



---

Signature of Investigator or Designee  
Name

Date

Investigator/Designee Printed  
Name

Submit an original and 1 copy of this application, with attachments (number all pages), to the Office of Research Administration, 341 Woods Hall.

## **Appendix K – Invitation to Participate**

Hi there!

You are invited to participate in a study regarding subtle discrimination and well-being in lesbian, gay, and bisexual individuals. The study is conducted by LGB-identified ally researcher at the University of Missouri-St. Louis. The purpose of this research is to further the counseling field's understanding of how LGB individuals experience subtle forms of discrimination and how that relates to well-being. If you are at least 18 years old, and identify yourself as lesbian, gay, or bisexual, I would greatly appreciate your participation in our study.

When you have finished the survey, you will have the option to enter a raffle (raffle specifics will be added once decided).

Subtle forms of discrimination are the everyday verbal and nonverbal comments and gestures that communicate that members of oppressed groups are less than – and these messages can affect well-being. We believe that exploring how LGB individuals experience these subtle, daily experiences of discrimination is relevant and critical.

The survey is anonymous, and takes about 20-30 minutes to complete. For those interested in participating in this study, click on the following hypertext link (web address)

which will take you to the consent form and survey. This research has been approved by the Institutional Review Board for protection of human subjects at the University of Missouri-St. Louis.

Please feel free to forward this e-mail announcement to eligible friends and other relevant listservs. Thanks in advance for your help with this project!

Sincerely,

Cori

Cori Deitz, M.Ed., NCC, PLPC., University of Missouri-St. Louis

## Appendix L - Homonegative Microaggression Scale

Homonegative Microaggression Scale (Wright, & Wegner, 2012)

Participants will be asked to answer the following two questions on the scale provided.

In the past 6 months:  
impact you?

How much does / did it bother /

Hardly ever/never	Not at all
Occasionally, but rarely	A little bit
Occasionally, from time to time	Somewhat
Consistently / often	A good deal
Constantly	A great deal

In the past 6 months: AND How much does / did it bother / impact you?

1. How often have people conveyed that it is your choice to be gay?
2. How often have people acted as if you have not come out?
3. How often have people asked about former boyfriends (if you are a woman) or girlfriends (if you are a man)?
4. How often have people assumed you are straight?
5. How often have people used the phrase “sexual preference” instead of “sexual orientation”?
6. How often have people assumed you were more sensitive (if you are a man) or less sensitive (if you are a woman) than you are?
7. How often have people assumed you were skilled in stereotypically gay tasks (like interior design for men or carpentry for woman)?
8. How often have people assumed you knew a lot about stereotypical LGB interests like wine (if you are a man) or sports (if you are a woman)?
9. How often have people assumed you were knowledgeable about women’s clothing (if you are a man) or men’s clothing (if you are a woman)?
10. How often have people of the same-sex assumed you were attracted to them simply because of your sexual orientation?
11. How often have people told you they just see you as a person, regardless of your sexual orientation?
12. How often have people said blanket statements about how society is full of diversity, minimizing your experience of being different?
13. How often have family members simply ignored the fact that you are a LGB individual?
14. How often have people changed the subject / topic when referenced to your sexual orientation comes up?
15. How often have people assumed you were a pervert of a deviant?
16. How often have people assumed you were a pedophile?
17. How often have people assumed you have HIV/AIDS because of your sexual orientation?
18. How often have people assumed you are sexually promiscuous because of your sexual orientation?
19. How often have people physically shielded their child / children from you?

20. How often have people avoided proximity, like crossing the street to walk or waiting for the next elevator?
21. How often have people said things like “I watched Will & Grace” to show they know about gay culture?
22. How often have people equated themselves and their experiences to yours as a minority?
23. How often have people indicated they know other LGB individuals by saying things like “My hairdresser is gay” or “I have a gay friend”?
24. How often have people showed surprise at how not effeminate (if you are a man) or not masculine (if you are a woman) you are?
25. How often have people assumed you like to wear clothing of the opposite sex?
26. How often have people made statements that you are “more normal” than they expected?
27. How often have people addressed you with the pronoun of the opposite sex (she/her for men, and he/him for women)?
28. How often have people told you to “calm down” or be less “dramatic”?
29. How often have people either told you to be especially careful regarding safe sex because of your sexual orientation or told you that you don’t have to worry about safe sex because of your sexual orientation?
30. How often have people dismissed you for bringing up the issue of your sexual orientation at school or work?
31. How often have people stared at you or given you a dirty look when expressing affection toward someone of the same sex?
32. How often have people made statements about LGB individuals using phrases like “you people” or “you know how gay people are”?
33. How often have people said it would bother them if someone thought they were gay?
34. How often have people made statements about why gay marriage should not be allowed?
35. How often have people made statements against LGB individuals adopting?
36. How often have people (directly or indirectly) called you a derogatory name like fag, queer, homo, or dyke?
37. Please click "3" as your response to this question.
38. How often have people told you to act differently at work or school in order to hide your sexual orientation?
39. How often have people made offensive remarks about LGB individuals in your presence, not realizing your sexual orientation?
40. How often have people used the phrase “that’s so gay” in your presence?
41. How often have people told you it’s wrong to be gay or said you were going to hell because of your sexual orientation?
42. How often have people told you to dress differently at work or school in order to hide your sexual orientation?
43. How often have people told you not to disclose your sexual orientation in some context (like school or work)?
44. How often have you felt that TV characters have portrayed stereotypes of LGB individuals?

45. How often have you felt like your rights (like marriage) are denied?
46. How often have religious leaders spoken out against homosexuality?



### **Appendix M – Internalized Homophobia Scale**

Internalized Homophobia Scale (Herek, Cogan, Gillis, & Glunt, 1998)

Participants will be asked to answer the following questions on the scale provided.

1 = Strongly agree

2 = Agree

3 = Neither agree or disagree

4 = Disagree

5 = Strongly disagree

1. I have tried to stop being attracted to the same sex in general.
2. If someone offered me the chance to be completely heterosexual, I would accept the chance.
3. I wish I weren't gay/lesbian/bisexual.
4. I feel that being gay/lesbian/bisexual is a personal shortcoming for me.
5. I would like to get professional help in order to change my sexual orientation from gay/lesbian/bisexual to straight.
6. I have tried to become more sexually attracted to men.
7. I often feel it best to avoid personal or social involvement with other gay/lesbian/bisexual women.
8. I feel alienated from myself because of being gay/lesbian/bisexual.
9. I wish that I could develop more erotic feelings about the other gender.

## Appendix N – Sexual Identity Distress Scale

Sexual Identity Distress Scale (Wright et al. 1999)

Participants will be asked to answer the following questions on the scale provided.  
Language was not modified for the current study.

- 1 = Strongly agree
- 2 = Agree
- 3 = Neither agree or disagree
- 4 = Disagree
- 5 = Strongly disagree

1. I have a positive attitude about being gay/lesbian/bisexual.
2. I feel uneasy around people who are very open in public about being gay/lesbian/bisexual.
3. I often feel ashamed that I am gay/lesbian/bisexual.
4. For the most part, I enjoy being gay/ lesbian/bisexual.
5. I worry a lot about what others think about my being gay/lesbian/bisexual.
6. I feel proud that I am gay/lesbian/ bisexual.
- 7. Please click "4" as your response to this question.**
8. I wish I weren't attracted to the same-sex.

\*\*Reverse score questions 1,5 and 7

## Appendix O – Lesbian, Gay, and Bisexual Identity Scale

Lesbian, Gay, and Bisexual Identity Scale (Mohr & Kendra, 2011)

For each of the following questions, please mark the response that best indicates your current experience as an LGB person. Please be as honest as possible: Indicate how you really feel now, not how you think you should feel. There is no need to think too much about any one question. Answer each question according to your initial reaction and then move on to the next.

Answer and Scoring:

Disagree Strongly (1pt), Disagree (2pt), Disagree Somewhat (3pt), Agree (4pt), Somewhat Agree (5pt), Agree Strongly (6pt)

1. I prefer to keep my same-sex romantic relationships rather private.
- 2. If it were possible, I would choose to be straight.**
3. I'm not totally sure what my sexual orientation is.
4. I keep careful control over who knows about my same-sex romantic relationships.
5. I often wonder whether others judge me for my sexual orientation.
6. I am glad to be an LGB person.
7. I look down on heterosexuals.
8. I keep changing my mind about my sexual orientation.
9. I can't feel comfortable knowing that others judge me negatively for my sexual orientation.
10. I feel that LGB people are superior to heterosexuals.
11. My sexual orientation is an insignificant part of who I am.
12. Admitting to myself that I'm an LGB person has been a very painful process.
13. I'm proud to be part of the LGB community.
14. I can't decide whether I am bisexual or homosexual.
15. My sexual orientation is a central part of my identity.
16. I think a lot about how my sexual orientation affects the way people see me.
17. Admitting to myself that I'm an LGB person has been a very slow process.
18. Straight people have boring lives compared with LGB people.
19. My sexual orientation is a very personal and private matter.
- 20. I wish I were heterosexual.**
- 21. Please click "3" as your response to this question**
21. To understand who I am as a person, you have to know that I'm LGB.
22. I get very confused when I try to figure out my sexual orientation.
23. I have felt comfortable with my sexual identity just about from the start.
24. Being an LGB person is a very important aspect of my life.
25. I believe being LGB is an important part of me.
26. I am proud to be LGB.
- 27. I believe it is unfair that I am attracted to people of the same sex.**

For comparability to the norms published in this study, the item response instructions listed above should be included. Also, at some point in the survey prior to these instructions, the following statement should be presented to respondents: “Some of you may prefer to use labels other than ‘lesbian, gay, and bisexual’ to describe your sexual orientation (e.g., ‘queer,’ ‘dyke,’ ‘questioning’). We use the term LGB in this survey as a convenience, and we ask for your understanding if the term does not completely capture your sexual identity.” In the interest of promoting further study, other researchers may use this scale without contacting us to obtain prior permission. However, we do ask that researchers send any reports of research findings as soon as available, including those that remain unpublished, to Jonathan J. Mohr.

Subscale scores are computed by reverse-scoring items as needed and averaging subscale item ratings. Subscale composition is as follows (underlined items should be reverse-scored): Acceptance Concerns (5, 9, 16), Concealment Motivation (1, 4, 19), Identity Uncertainty (3, 8, 14, 22), Internalized Homonegativity (2, 20, 27), Difficult Process (12, 17, 23), Identity Superiority (7, 10, 18), Identity Affirmation (6, 13, 26), and Identity Centrality (11, 15, 21, 24, 25).

## Appendix P – Emotion Regulation Questionnaire

Emotion Regulation Questionnaire (Gross & John, 2003)

Participants will be asked to answer the following questions on the scale provided.

0	1	2	3	4	5	6
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

### Reappraisal factor

1. I control my emotions by changing the way I think about the situation I'm in.
2. When I want to feel less negative emotion, I change the way I'm thinking about the situation.
3. When I want to feel more positive emotion, I change the way I'm thinking about the situation.
4. When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.
5. When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.
6. When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.

### Suppression factor

7. I control my emotions by not expressing them.
8. When I am feeling negative emotions, I make sure not to express them.
9. I keep my emotions to myself.
10. When I am feeling positive emotions, I am careful not to express them.

### Appendix Q – Ruminative Response Scale

Ruminative Responses Scale (Treynor, Gonzalez, & Nolen- Hoeksema, 2003)

Participants will be asked to answer the following questions on the scale provided.

1                      2                      3                      4  
*Almost never                      to                      Almost always*

1. Think about how alone you feel
2. Think “I won’t be able to do my job if I don’t snap out of this.”
3. Think about your feelings of fatigue and achiness
4. Think about how hard it is to concentrate
5. Think “What am I doing to deserve this?”
6. Think about how passive and unmotivated you feel
7. Analyze recent events to try to understand why you are depressed
8. Think about how you don’t seem to feel anything anymore
9. Think “Why can’t I get going?”
10. Think “Why do I always react this way?”
11. Go away by yourself and think about why you feel this way
12. Write down what you are thinking and analyze it
13. Think about a recent situation, wishing it had gone better
14. Think “I won’t be able to concentrate if I keep feeling this way.”
15. Think “Why do I have problems other people don’t have?”
16. Think “Why can’t I handle things better?”
17. Think about how sad you feel
18. Think about all your shortcomings, failings, faults, mistakes
19. Think about how you don’t feel up to doing anything
20. Analyze your personality to try to understand why you are depressed
21. Go someplace alone to think about your feelings
22. Think about how angry you are with yourself

Reflection (7, 11, 12, 20, 21); Brooding (5, 10, 13, 15, 16); Depression-Related (1, 2, 3, 4, 6, 8, 9, 14, 17, 18, 19, 22)

\*\*Note: Depression-Related items will not be used in this study.

## Appendix R – Stigma Consciousness Questionnaire

Stigma Consciousness Questionnaire (Pinel, 1999)

Participants will be asked to answer the following questions on the scale provided.

0	1	2	3	4	5	6
Strongly Disagree		Neither Agree Nor Disagree			Strongly Agree	

**\*\*Note:** The term ‘homosexual’ and ‘sexual preference’ was removed from the original SCS (Pinel, 1999) and replaced with ‘sexual minority individual’ and ‘sexual orientation.’

1. Stereotypes about sexual minority individuals have not affected me personally. (R)
2. I never worry that my behaviors will be viewed as stereotypical of sexual minority individual. (R)
3. When interacting with heterosexuals who know of my sexual orientation, I feel like they interpret all my behaviors in terms of the fact that I am a sexual minority individual.
4. Most heterosexuals do not judge sexual minority individual on the basis of their sexual orientation. (R)
5. My being a sexual minority individual does not influence how other sexual minority individuals act with me. (R)
6. I almost never think about the fact that I am a sexual minority individual when I interact with heterosexuals. (R)
7. My being a sexual minority individual does not influence how people act with me. (R)
8. Most heterosexuals have a lot more homophobic thoughts than they actually express.
9. I often think that heterosexuals are unfairly accused of being homophobic. (R)
10. Most heterosexuals have a problem viewing sexual minority individual as equals.

**\*\*Reverse score questions 1,2,4,5,6,7 and 9**

## Appendix S - Expectations of Rejection

Expectations of Rejection (Meyer, 1995)

Instructions:

These next questions refer to a person like you; by this we mean persons who have the same sexual orientation as you. Please read each item and decide whether you agree or disagree and to what extent.

Strongly  
Disagree

Disagree

Agree

Strongly Agree

1. Most employers will not hire a person like you.
2. Most people believe that a person like you cannot be trusted.
3. Most people think that a person like you is dangerous and unpredictable.
4. Most people think less of a person like you.
5. Most people look down on people like you.
6. Most people think people like you are not as intelligent as the average person.



### Appendix T – Ingroup Disadvantage

Ingroup Disadvantage (Schmitt et al. 2002)

Participants will be asked to use the scale below to respond to the three questions listed.

1 – 6 (very strongly disagree – very strongly agree)

1. **Sexual minority individuals** face a good deal of discrimination.
2. **Sexual minority individuals** are negatively affected by discrimination.
3. I will likely be the target of discrimination based on my **sexual orientation** in the next year.

Words bolded indicated language changes from the original measure.

## Appendix U - Discrimination Anxiety

Discrimination Anxiety (Major et al. 2007)

Participants will be asked to use the scale to respond to the questions listed below.  
1 – 6 (very strongly disagree – very strongly agree)

1. I worry that prejudice against **sexual minority individuals** will have a negative effect on my life.
2. I am scared that discrimination will have harmful or bad consequences for me.
3. I feel stressed about prejudice and discrimination against **sexual minority individuals**.
4. Discrimination will prevent me from reaching my goals.
5. Discrimination will affect many areas of my life.
6. Discrimination will have a severe impact on my life.

Words bolded indicated language changes from the original measure.

## Appendix V – Ryff’s Psychological Well-Being Measure

Ryff’s Psychological Well-Being Measure (Ryff, 1989)

**Psychometric Properties.** Attached are items for six 14-item scales of psychological well-being constructed to measure the dimensions of autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Internal consistency (alpha) coefficients are indicated on each scale. Correlations of each scale with its own 20-item parent scale are also provided. Reliability and validity assessments of the 20-item parent scales are detailed in Ryff (1989) -- *Journal of Personality and Social Psychology*, 57, 1069-1081. Psychometric properties of the 3-item scales are detailed in Ryff & Keyes (1995) -- *Journal of Personality and Social Psychology*, 69, 719-727. The 3-item scales were developed for national telephone surveys. They have low internal consistency and are not recommended for high quality assessment of well-being.

**Presentation Format/Scoring.** Items from the separate scales are mixed (by taking one item from each scale successively into one continuous self-report instrument). Participants respond using a six-point format: strongly disagree (1), moderately disagree (2), slightly disagree (3), slightly agree (4), moderately agree (5), strongly agree (6). Responses to negatively scored items (-) are reversed in the final scoring procedures so that high scores indicate high self-ratings on the dimension assessed.

**Length Options.** The 14-item scales, shown on the attached pages are what we currently employ in our own studies (see Reference List).

The 9-item scales, indicated by brackets around the item number [ # ], are currently in use in the Wisconsin Longitudinal Study. The specific items for the 9-item scales include Autonomy 2, 3, 4, 5, 6, 9, 10, 11, 14; Environmental Mastery 1, 2, 3, 4, 5, 7, 9, 13, 14; Personal Growth 1, 4, 5, 6, 9, 10, 11, 13, 14; Positive Relations With Others 1, 2, 3, 4, 6, 8, 9, 10, 12; Purpose In Life 2, 3, 5, 6, 7, 8, 9, 10, 11; Self-Acceptance 1, 2, 3, 5, 6, 7, 10, 12, 13.

The 3-item scales, shown in bold and italics, are currently in use in various large-scale national and international surveys. The specific items for the 3-item scales include Autonomy 6, 9, 14; Environmental Mastery 1, 2, 4; Personal Growth 5, 11, 13; Positive Relations With Others 2, 9, 10; Purpose In Life 2, 10, 11; Self-Acceptance 1, 5, 7

## Autonomy

Definition: High Scorer: Is self-determining and independent; able to resist social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards.

Low Scorer: Is concerned about the expectations and evaluations of others; relies on judgments of others to make important decisions; conforms to social pressures to think and act in certain ways.

- (-) 1. Sometimes I change the way I act or think to be more like those around me.
- (+) [ 2.] I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.
- (+) [ 3.] My decisions are not usually influenced by what everyone else is doing.
- (-) [ 4.] I tend to worry about what other people think of me.
- (+) [ 5.] Being happy with myself is more important to me than having others approve of me.
- (-) [ 6.] ***I tend to be influenced by people with strong opinions.***
- (+) 7. People rarely talk me into doing things I don't want to do.
- (-) 8. It is more important to me to "fit in" with others than to stand alone on my principles.
- (+) [ 9.] ***I have confidence in my opinions, even if they are contrary to the general consensus.***
- (-) [ 10.] It's difficult for me to voice my own opinions on controversial matters.
- (-) [ 11.] I often change my mind about decisions if my friends or family disagree.
- (+) 12. I am not the kind of person who gives in to social pressures to think or act in certain ways.
- (-) 13. I am concerned about how other people evaluate the choices I have made in my life.
- (+) [ 14.] ***I judge myself by what I think is important, not by the values of what others think is important.***

(+) indicates positively scored items

(-) indicates negatively scored items

Internal consistency (coefficient alpha) = .83

Correlation with 20-item parent scale = .97

## Environmental Mastery

Definition: High Scorer: Has a sense of mastery and competence in managing the environment; controls complex array of external activities; makes effective use of surrounding opportunities; able to choose or create contexts suitable to personal needs and values.

Low Scorer: Has difficulty managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding opportunities; lacks sense of control over external world.

- (+) [ 1.] ***In general, I feel I am in charge of the situation in which I live.***
- (-) [ 2.] ***The demands of everyday life often get me down.***
- (-) [ 3.] I do not fit very well with the people and the community around me.
- (+) [ 4.] ***I am quite good at managing the many responsibilities of my daily life.***
- (-) [ 5.] I often feel overwhelmed by my responsibilities.
- (+) 6. If I were unhappy with my living situation, I would take effective steps to change it.
- (+) [ 7.] I generally do a good job of taking care of my personal finances and affairs.
- (-) 8. I find it stressful that I can't keep up with all of the things I have to do each day.
- (+) [ 9.] I am good at juggling my time so that I can fit everything in that needs to get done.
- (+) 10. My daily life is busy, but I derive a sense of satisfaction from keeping up with everything.
- (-) 11. I get frustrated when trying to plan my daily activities because I never accomplish the things I set out to do.
- (+) 12. My efforts to find the kinds of activities and relationships that I need have been quite successful.
- (-) [ 13.] I have difficulty arranging my life in a way that is satisfying to me.
- (+) [ 14.] I have been able to build a home and a lifestyle for myself that is much to my liking.

(+) indicates positively scored items

(-) indicates negatively scored items

Internal consistency (coefficient alpha) = .86

Correlation with 20-item parent scale = .98

## Personal Growth

Definition: High Scorer: Has a feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing his or her potential; sees improvement in self and behavior over time; is changing in ways that reflect more self-knowledge and effectiveness.

Low Scorer: Has a sense of personal stagnation; lacks sense of improvement or expansion over time; feels bored and uninterested with life; feels unable to develop new attitudes or behaviors.

- (-) [ 1.] I am not interested in activities that will expand my horizons.
- (+) 2. In general, I feel that I continue to learn more about myself as time goes by.
- (+) 3. I am the kind of person who likes to give new things a try.
- (-) [ 4.] I don't want to try new ways of doing things--my life is fine the way it is.
- (+) [ 5.] ***I think it is important to have new experiences that challenge how you think about yourself and the world.***
- (-) [ 6.] When I think about it, I haven't really improved much as a person over the years.
- (+) 7. In my view, people of every age are able to continue growing and developing.
- (+) 8. With time, I have gained a lot of insight about life that has made me a stronger, more capable person.
- (+) [ 9.] I have the sense that I have developed a lot as a person over time.
- (-) [ 10.] I do not enjoy being in new situations that require me to change my old familiar ways of doing things.
- (+) [ 11.] ***For me, life has been a continuous process of learning, changing, and growth.***
- (+) 12. I enjoy seeing how my views have changed and matured over the years.
- (-) [ 13.] ***I gave up trying to make big improvements or changes in my life a long time ago.***
- (-) [ 14.] There is truth to the saying you can't teach an old dog new tricks.

(+) indicates positively scored items

(-) indicates negatively scored items

Internal consistency (coefficient alpha) = .85

Correlation with 20-item parent scale = .97

## Positive Relations With Others

Definition: High Scorer: Has warm satisfying, trusting relationships with others; is concerned about the welfare of others; capable of strong empathy, affection, and intimacy; understands give and take of human relationships.

Low Scorer: Has few close, trusting relationships with others; finds it difficult to be warm, open, and concerned about others; is isolated and frustrated in interpersonal relationships; not willing to make compromises to sustain important ties with others.

- (+) [ 1.] Most people see me as loving and affectionate.
- (-) [ 2.] ***Maintaining close relationships has been difficult and frustrating for me.***
- (-) [ 3.] I often feel lonely because I have few close friends with whom to share my concerns.
- (+) [ 4.] I enjoy personal and mutual conversations with family members or friends.
- (+) 5. It is important to me to be a good listener when close friends talk to me about their problems.
  
- (-) [ 6.] I don't have many people who want to listen when I need to talk.
- (+) 7. I feel like I get a lot out of my friendships.
- (-) [ 8.] It seems to me that most other people have more friends than I do.
- (+) [ 9.] ***People would describe me as a giving person, willing to share my time with others.***
- (-) [ 10.] ***I have not experienced many warm and trusting relationships with others.***
- (-) 11. I often feel like I'm on the outside looking in when it comes to friendships.
- (+) [ 12.] I know that I can trust my friends, and they know they can trust me.
- (-) 13. I find it difficult to really open up when I talk with others.
- (+) 14. My friends and I sympathize with each other's problems.

(+) indicates positively scored items

(-) indicates negatively scored items

Internal consistency (coefficient alpha) = .88

Correlation with 20-item parent scale = .98

## Purpose In Life

- Definition: High Scorer: Has goals in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living.
- Low Scorer: Lacks a sense of meaning in life; has few goals or aims, lacks sense of direction; does not see purpose of past life; has no outlook or beliefs that give life meaning.
- (+) 1. I feel good when I think of what I've done in the past and what I hope to do in the future.
- (-) [ 2.] ***I live life one day at a time and don't really think about the future.***
- (-) [ 3.] I tend to focus on the present, because the future nearly always brings me problems.
- (+) 4. I have a sense of direction and purpose in life.
- (-) [ 5.] My daily activities often seem trivial and unimportant to me.
- (-) [ 6.] I don't have a good sense of what it is I'm trying to accomplish in life.
- (-) [ 7.] I used to set goals for myself, but that now seems like a waste of time.
- (+) [ 8.] I enjoy making plans for the future and working to make them a reality.
- (+) [ 9.] I am an active person in carrying out the plans I set for myself.
- (+) [ 10.] ***Some people wander aimlessly through life, but I am not one of them.***
- (-) [ 11.] ***I sometimes feel as if I've done all there is to do in life.***
- (+) 12. My aims in life have been more a source of satisfaction than frustration to me.
- (+) 13. I find it satisfying to think about what I have accomplished in life.
- (-) 14. In the final analysis, I'm not so sure that my life adds up to much.
- (+) indicates positively scored items  
 (-) indicates negatively scored items

Internal consistency (coefficient alpha) = .88

Correlation with 20-item parent scale = .98



## Self-Acceptance

Definition: High Scorer: Possesses a positive attitude toward the self; acknowledges and accepts multiple aspects of self, including good and bad qualities; feels positive about past life.

Low Scorer: Feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different than what he or she is.

- (+) [ 1.] ***When I look at the story of my life, I am pleased with how things have turned out.***
- (+) [ 2.] In general, I feel confident and positive about myself.
- (-) [ 3.] I feel like many of the people I know have gotten more out of life than I have.
- (-) 4. Given the opportunity, there are many things about myself that I would change.
- (+) [ 5.] ***I like most aspects of my personality.***
- (+) [ 6.] I made some mistakes in the past, but I feel that all in all everything has worked out for the best.
- (-) [ 7.] ***In many ways, I feel disappointed about my achievements in life.***
- (+) 8. For the most part, I am proud of who I am and the life I lead.
- (-) 9. I envy many people for the lives they lead.
- (-) [ 10.] My attitude about myself is probably not as positive as most people feel about themselves.
- (-) 11. Many days I wake up feeling discouraged about how I have lived my life.
- (+) [ 12.] The past had its ups and downs, but in general, I wouldn't want to change it.
- (+) [ 13.] When I compare myself to friends and acquaintances, it makes me feel good about who I am.
- (-) 14. Everyone has their weaknesses, but I seem to have more than my share.

(+) indicates positively scored items

(-) indicates negatively scored items

Internal consistency (coefficient alpha) = .91

Correlation with 20-item parent scale = .99

### Appendix W – Satisfaction with Life Scale

Satisfaction with Life Scale (Diener, Emmons, Larsen & Griffin, 1985)

Participants will be asked to answer the following questions on the scale provided.

1                      2                      3                      4                      5                      6                      7  
Strongly Disagree                      Neither Agree Nor Disagree                      Strongly Agree

1. In most ways my life is close to ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
- 4. Select 1 to this question.**
5. So far I have gotten the important things I want in life.
6. If I could live my life over, I would change almost nothing.

### Appendix X – Subjective Happiness Scale

Subjective Happiness Scale (Lyubomirsky & Lepper, 1999)

Participants will be asked to answer the following questions on the scale provided.

1. In general, I consider myself:  

1	2	3	4	5	6	7
Not a very happy person				A very happy person		
  
2. Compared to most of my peers, I consider myself:  

1	2	3	4	5	6	7
Less happy					More happy	
  
3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?  

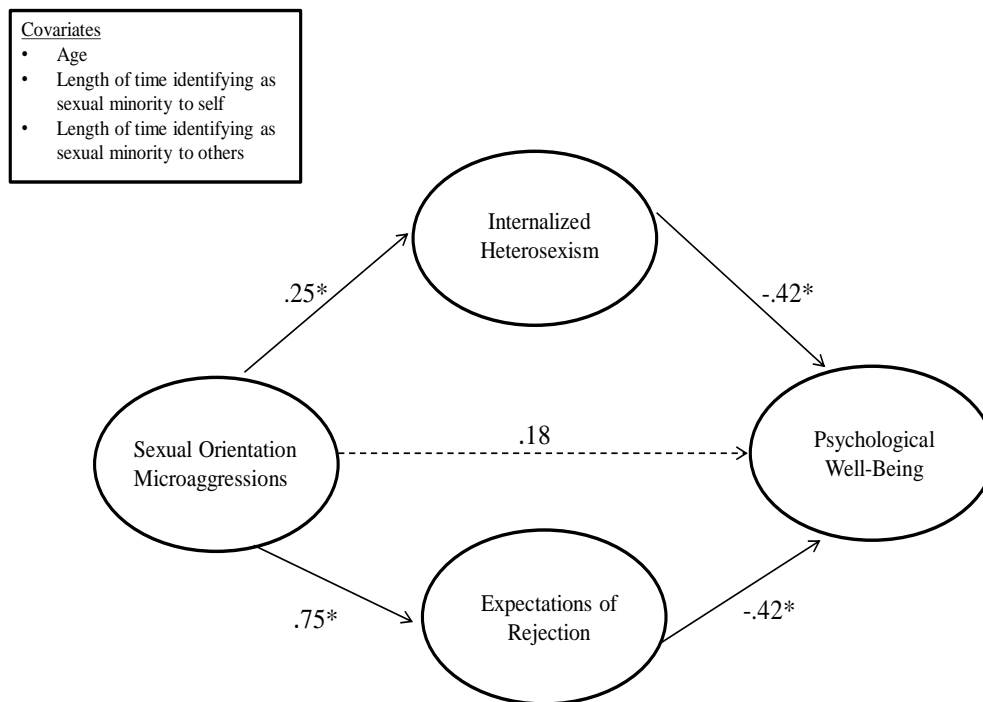
1	2	3	4	5	6	7
Not at all					A great deal	
  
4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?  

1	2	3	4	5	6	7
Not at all					A great deal	

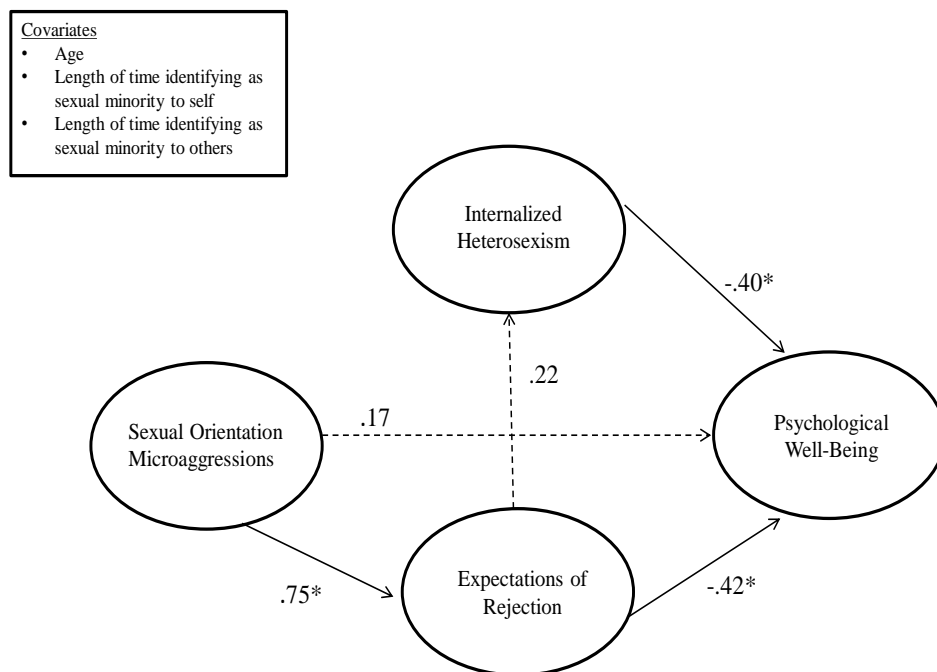
\*\*Reverse score #4

## Figures and Tables

Figure 1 - Structural Model (Model 1)

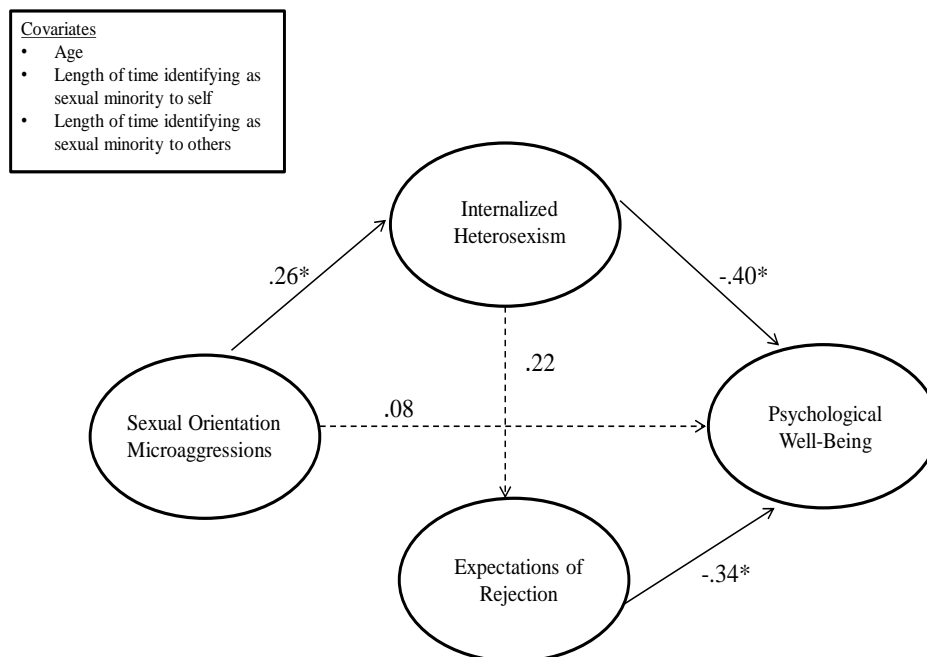


*Note:* Values reflect standardized coefficients. The dashed line indicates a nonsignificant correlation. \*  $p < .05$

**Figure 2 - Alternative Model (Model 2)**

*Note:* Values reflect standardized coefficients. The dashed line indicates a nonsignificant correlation. \*  $p < .05$

**Figure 3 – Alternative Model (Model 3)**



*Note:* Values reflect standardized coefficients. The dashed line indicates a nonsignificant correlation. \*  $p < .05$

**Table 1 – Intercorrelations among Manifest Variables***Table 1**Intercorrelations*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. HMS Current														
2. HMS Impact	.81**													
3. SID	.11	.13*												
4. IHP	.24**	.26**	.75**											
5. LGBIS-IH	.16*	.16*	.63**	.76**										
6. Exp.Rej.	.41**	.37**	.34**	.33**	.20**									
7. Ingroup	.48**	.57**	-.01	.06	.01	.35**								
8. Disc.Anxiety	.49**	.55**	.20**	.23**	.15*	.49**	.61**							
9. SCQ	.48**	.59**	.14*	.18**	.06	.43**	.63**	.58**						
10. ERQReap	.17**	.14*	-.09	-.03	-.04	.03	.18**	.11	.14*					
11. ERQSupp	.03	.00	.36**	.28**	.24**	.18**	-.04	.19**	.04	.07				
12. RRSRum	.41**	.51**	.25**	.28**	.14*	.40**	.35**	.43**	.39**	-.03	.16*			
13. Ryff	-.16*	-.17*	-.48**	-.39**	-.33**	-.40**	-.08	-.36**	-.22**	.27**	-.44**	-.50**		
14. SHS	-.17**	-.27**	-.29**	-.24**	-.20**	-.35**	-.25**	-.45**	-.34**	.24**	-.35**	-.58**	.67**	
15. SWLS	-.15*	-.19**	-.34**	-.33**	-.31**	-.28**	-.07	-.29**	-.19**	.16*	-.33**	-.47**	.73**	.65**

\* Correlation is significant at the 0.05 level

\*\* Correlation is significant at the 0.01 level

Note. HMS Current=Homonegative Microaggression Scale (Current subscale), HMS Impact= Homonegative Microaggression Scale (Impact subscale), SID=Sexual Identity Distress scale, IHP=Internalized Homophobia scale, LGBIS-IH=Lesbian, Gay & Bisexual Identity Scale (Internalized Heterosexism subscale), Exp.Rej.=Expectations of Rejection scale, In group=Ingroup Disadvantage Scale, Disc.Anxiety=Discrimination Anxiety scale, SCQ=Stigma Consciousness Questionnaire, ERQReap=Emotion Regulation Questionnaire (reappraisal subscale), ERQSupp=Emotion Regulation Questionnaire (suppression subscale), RRSRum=Ruminative Response Scale (brooding subscale), Ryff=Ryff Psychological Well-Being 18-item scale, SHS=Subjective Happiness Scale, SWLS=Satisfaction With Life Scale

**Table 2 - Subscale Means (M), Standard Deviations (SD) & Cronbach's Alpha***Table 2**Subscale Means (M), Standard Deviations (SD) & Cronbach's Alpha*

		M	SD	Cronbach's Alpha
1.	HMS Current	2.27	.675	.95
2.	HMS Impact	2.18	.838	.96
3.	SID	1.80	.645	.82
4.	IHP	1.60	.622	.87
5.	LGBIS-IH	1.73	.923	.83
6.	Exp.Rej.	1.91	.649	.92
7.	Ingroup	4.45	.952	.74
8.	Disc.Anxiety	3.36	1.244	.92
9.	SCQ	3.55	.763	.79
10.	ERQReap	4.27	.840	.86
11.	ERQSupp	3.03	1.223	.87
12.	RRSRum	1.91	.689	.85
13.	Ryff	4.58	.662	.87
14.	SHS	4.63	1.304	.86
15.	SWLS	3.39	.901	.90

Note. HMS Current=Homonegative Microaggression Scale (Current subscale), HMS Impact=Homonegative Microaggression Scale (Impact subscale), SID=Sexual Identity Distress scale, IHP=Internalized Homophobia scale, LGBIS-IH=Lesbian, Gay & Bisexual Identity Scale (Internalized Heterosexism subscale), Exp.Rej.=Expectations of Rejection scale, Ingroup=Ingroup Disadvantage Scale, Disc.Anxiety=Discrimination Anxiety scale, SCQ=Stigma Consciousness Questionnaire, ERQReap=Emotion Regulation Questionnaire (reappraisal subscale), ERQSupp=Emotion Regulation Questionnaire (suppression subscale), RRSRum=Ruminative Response Scale (brooding subscale), Ryff=Ryff Psychological Well-Being 18-item scale, SHS=Subjective Happiness Scale, SWLS=Satisfaction With Life Scale



**Table 3 - Factor Loadings for the Measurement Model***Table 3  
Factor Loadings for the Measurement Model*

Variable and Measures	Standardized factor loading
Sexual Orientation Microaggressions	
HMSfreq	.97
HMSimpact	.83
Internalized Heterosexism	
IHP	.94
SID	.8
LGBIS-IH	.8
Expectations of Rejection	
ExpRej	.56
Ingroup	.77
Disc.Anxiety	.78
SQC	.78
Emotion Regulation	
EQRRcap	.1
EQRSup	.1
RRSRum	.68
Psychological Well-Being	
Ryff	.88
SHS	.78
SWLS	.83

All correlations are significant at the 0.05 level

Note. HMS Current=Homonegative Microaggression Scale (Current subscale), HMS Impact=Homonegative Microaggression Scale (Impact subscale), SID=Sexual Identity Distress scale, IHP=Internalized Homophobia scale, LGBIS-IH=Lesbian, Gay & Bisexual Identity Scale (Internalized Heterosexism subscale), Exp.Rej.=Expectations of Rejection scale, In group=Ingroup Disadvantage Scale, Disc.Anxiety=Discrimination Anxiety scale, SCQ=Stigma Consciousness Questionnaire, EQRRcap=Emotion Regulation Questionnaire (reappraisal subscale), EQRSup=Emotion Regulation Questionnaire (suppression subscale), RRSRum=Ruminative Response Scale (brooding subscale), Ryff=Ryff Psychological Well-Being 18-item scale, SHS=Subjective Happiness Scale, SWLS=Satisfaction With Life Scale

**Table 4 - Correlations among Latent Variables for the Measurement Model***Table 4**Correlations among Latent Variables for the Measurement Model*

Latent Variable	1	2	3	4
1. Sexual Orientation Microaggressions				
2. Internalized Heterosexism	.25			
3. Expectations of Rejection	.75	.19		
4. Psychological Well-Being	-.25	-.46	-.37	

Note. N = 233.  $p < .05$

**Table 5 - Fit Statistics for Mediation Models**Table 5  
*Fit Statistics for Mediation Models*

	$\chi^2$	df	CMIN/df	CFI	RMSEA	SRMR	Proportion of PWB variance predicted
With direct path from SMM to PWB							
Model 1	139.07	60	2.32	.96	.07	.06	30%
Model 2	142.77	60	2.4	.96	.08	.06	31%
(ER to IH)							
Model 3	259.73	60	4.33	.9	.12	.15	
(IH to ER)							
Without direct path from SMM to PWB							
Model 1	141.34	61	2.32	.96	.08	.06	30%
Model 2	144.93	61	2.4	.96	.08	.06	31%
(ER to IH)							
Model 3	260.61	61	4.27	.9	.12	.14	
(IH to ER)							

Note. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; PWB = psychological well-being.