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The Effects of Buddhist Psychological Practices on the Mental Health and Social Attitudes of Lesbian, Gay, and Bisexual People

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Abstract

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MS, Walden University, 2008

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

This non-experimental, quantitative study explored the effects of the Buddhist-derived practices of mindfulness and loving-kindness meditations on the wellness of lesbian, gay, and bisexual (LGB) people. LGB people are at higher risk of mental illness and increased social isolation due to minority stress; Buddhist-derived mindfulness practices mediate these effects in other groups. Lazarus and Folkman's transactional model of stress and coping was the theoretical model explaining how positive cognitive appraisal induced by meditation can mediate effects of stress. This study examined whether mental health scores on the Emotional Symptoms Checklist (ESC), social attitudes measured on the Unjust World Views Scale, and self-perception measured by the Remoralization Scale improved individually and collectively after LGB participants engaged in 1 of 3 meditation conditions: mindfulness practice, loving-kindness practice, or a relaxation control group. ANOVA analyses revealed no significant improvements in participants' scores on the 3 measures as a result of either one of the meditation conditions or the control group. An unexpected finding emerged between participants who reported a history of depression and those who did not; ESC scores among those with depression significantly improved after the meditation or relaxation interlude regardless of group assignment, possibly due to disruption of ruminative thought processes. Future studies could build upon this study by training participants to meditate using more interactive means than online videos used here. The mental health needs of LGB people remain urgent, and further explorations of promising techniques such as mindfulness are the foundation of future social change.

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Dedication

This dissertation is dedicated to my wonderful wife, ReAnn, and our amazing son, Jackson. The joy you bring me is beyond words, and I look forward to all our tomorrows. I love you!

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I am indebted to Dr. Tracy Marsh and Dr. Nina Nabors for their thoughtful feedback and ongoing support throughout the dissertation writing process. Dr. Marsh, I appreciate your enthusiasm, guidance, and patience throughout the years of researching this dissertation. Dr. Nabors, I appreciate your perspective on the research requirements and willingness to provide feedback. I can't thank you both enough!

Table of Contents

List of Tables

Chapter 1: Introduction to the Study

There are challenges inherent in living with a minority sexual orientation identity. Lesbian, gay, and bisexual (LGB) people face numerous challenges related to self-image, interpersonal relationships, and the cumulative effects of experiencing prejudice at the macro- and micro-levels of society—all of which can contribute to poor mental health outcomes (Kuyper & Fokkema, 2011). The present study examined whether the use of Buddhist psychological practices such as mindfulness could potentially be helpful to the LGB community. Currently the subject of much research, mindfulness and associated practices derived from Buddhist philosophies are being used with notably positive outcomes in a variety of clinical populations (Rapgay & Bystrisky, 2009). The importance of the study lay in determining whether the LGB community responded to material derived from applied Buddhist practice; and, if a measurable response had been detected, the study had the potential to suggest a path forward for more effective LGB therapies. The development of therapy techniques that are both effective and evidence-based are crucial societal needs for LGB people, who, as sexual minorities, are thought to be at higher risk of deleterious effects of untreated mental health conditions—including higher risk of mental illness, substance abuse, and suicide (King et al., 2008).

Background

The current study explored the mental health challenges of LGB people by examining what it means to successfully integrate a minority sexual status into one's concept of self; the study also highlighted the lack of empirically-supported psychological treatments that target LGB adjustment and psychosocial well-being. Major

theories of LGB identity development were explored from a historical context, along with current thinking about how sexual fluidity affects sexual identity, behaviors, and self-concept. In particular, discussion of social judgment and the influence of religious beliefs on how LGB people are treated by others—as well as how those beliefs may impact self-esteem—are discussed here. Correlates of minority stress and mental health are presented also, demonstrating a need for effective therapies.

After establishing the emotional and psychological challenges LGB people face, the current study introduced the concept of Buddhist psychology as a potentially healing and supportive therapeutic practice. In particular, the concept of mindfulness—a secular derivative of traditional Buddhist practice in which attention is focused on the present moment (Kabat-Zinn, 1991)—was explored as a fundamental element of mental and physical health in a variety of other clinical populations. The current study was an extension of the exponentially-growing research base supporting the applications of Buddhist practices as effective psychological interventions (Cramer, Lauche, Paul, & Dobos, 2012; Helgason & Sarris, 2013; Lakhan & Schofield, 2013; Lush et al., 2009; Vollestad, Nielsen, & Nielsen, 2012; Young & Baime, 2010). Although not an intervention in itself, the present study sought to explore whether exposure to Buddhist-derived material influences psychological states and cognitive appraisal of oneself and the surrounding world. Theoretically, Lazarus and Folkman's (1984) transactional model of stress and coping is posited as the mode of action underlying Buddhist practice's effectiveness: By providing a positive way to structure one's thoughts, stressors can be more successfully managed.

Although Buddhist-derived practices such as mindfulness and loving-kindness meditation are established with various populations, to date, there has been no empirical study examining the effects of these practices within the LGB community. This study sought to redress that gap in knowledge by examining the extent to which LGB people respond—or do not respond—to practices rooted in Buddhist traditions, including focused attention mindfulness meditation and loving-kindness meditation that increases compassion for oneself and others. Exploring whether these practices are able to temporarily bring about changes in mental state, self-perception, and worldview served as a foundation for future research on the efficacy of Buddhist therapy to be used in clinical populations. Because the mental health needs of LGB people differ in a variety of ways from their heterosexual counterparts and are thought to be caused by unique inter- and intra-personal mechanisms (Meyer, 2013), it is important to establish best practices to improve mental health for this population.

Problem Statement

The psychological needs of LGB people are unique among other client populations who seek supportive therapy services, and as such, this population requires culturally-appropriate mental health services. The process of LGB identity development is an involved developmental task (Cass, 1979), made more difficult by dissonant perspectives that would have LGB people believe that they are bad, wrong, sinful, or otherwise unworthy of respect because of their sexual identity. As such, clinicians treating LGB people in therapy need to be aware of the effect that cultural norms may have on a client's ongoing sense of self (Meyer, 2013; Reynolds & Hanjorgiris, 2000)

and how to address sexual identity development, social expectations, and religious identity in a therapeutic context (Yarhouse & Beckstead, 2011). While a supportive framework does exist in the LGB sociopolitical community, often, the challenges inherent in living as a member of a minority group might require professional psychological services to cope with prejudice and life stressors across the lifespan, the cumulative effects of which are known as minority stress (Meyer, 2013). LGB people also seek mental health services to deal with life issues not unique to sexual minority status but nevertheless requiring the skills of a self-aware, unbiased, and ethically-informed clinician who is comfortable with addressing issues presented by LGB people (Greene, 2007). Although some studies indicated that LGB people are more likely to experience mental health disorders, substance abuse issues, and suicide attempts compared to their heterosexual counterparts (Bolton & Sareen, 2011), others note that the prevalence of these issues varies by gender, ethnicity, and perhaps social support (Meyer, Dietrich, & Schwartz, 2008). Taken together, the experience of minority stress and the empirical data suggest that LGB people are in need of empirically-supported techniques aimed at reducing the potentially negative mental health impact of their unique life challenges. Such techniques could positively impact society by improving the mental health of LGB people.

Although the need for effective minority stress treatment for the LGB community is great, simultaneously, current findings in the mental health literature report the many clinical populations that are being successfully treated by various types of mindfulness practices. Mindfulness, or concentrated awareness from moment to moment (Kabat-

Zinn, 1991), is related to meditation practices found in ancient religious traditions. Most notably, meditation, mindfulness, and related present-moment focused practices are the focus of Buddhist psychology (Kelly, 2008). Derived from the centuries-old religious and secular applications of Buddhism, Buddhist psychology employs facets of the Buddhist tradition in a secular context to bring about psychological health. Multiple Buddhist practices are being adapted for secular use. Several studies have revealed that mindfulness meditation has markedly improved both physical health and psychological functioning in a variety of afflicted populations with no known side effects (Klatt, Buckworth, & Malarkey, 2009; Praissman, 2008). Loving-kindness meditation, which focuses on practicing a sustained awareness of love toward oneself and others, brings to mind the interconnectedness of everyone and allows the practitioner to experience emotional connection without grasping or clinging (Salzberg, 2011). While focused attention mindfulness meditation and loving-kindness meditation both support attention and nonattachment, neurological researchers have shown that mindfulness practice improves attention-based cognitive tasks, whereas loving-kindness meditation increases affective awareness (Lee et al., 2012). Both attention regulation and management of affective responses are necessary in effective emotion regulation, and successful existing therapy techniques make use of both components; for example, see Linehan's (1993) dialectical behavior therapy.

Research abounds on the use of Buddhist principles and practices in a variety of medical and psychological populations, even in instances where original Buddhist tenets have been adapted for Western use (Rapgay & Bystrisky, 2009); to date, however, no

studies with empirical data have been published that examine the use of Buddhist psychology to alleviate the mental health issues and social stresses experienced by LGB people. This study addressed this gap in the literature by examining whether Buddhist psychological principles could help to improve the self-reported mental health, self-perception, and worldviews of LGB people. The study's findings contributed to knowledge about the evidence-based practices that are effective with this population.

Purpose of the Study

This study built upon the work of Blando (2009), who wrote about the potential for positive outcomes by utilizing Buddhist psychological principles with older lesbian and gay clients. Blando's work discussed the alienation that some LGB people may feel from society, and, in particular, from religious institutions that have either intentionally or unintentionally marginalized them through their beliefs. He noted that Eastern religions such as Buddhism may be better received by LGB people because they depart from more traditional Western religious ideals. Buddhist psychological principles utilize many of the concepts found in Buddhist religion but are presented in the context of therapy by a trained mental health provider (Kornfield, 2008).

The design of this study utilized an Internet-based, quantitative methodology to explore whether Buddhist psychological principles are efficacious in decreasing self-reported mental health attributes, self-perception, and reactions to societal stressors routinely experienced by LGB people. As of this writing, there are no empirical studies that have examined the utility of Buddhist-based therapy techniques with the LGB community producing quantifiable data. This study sought to expose the LGB

community to some of the same Buddhist-derived techniques that have received empirical support in other populations and to analyze the outcomes across various subset groups within the LGB participants. Ultimately, the intent of the study was to evaluate whether brief exposure to Buddhist-derived stimuli resulted in changed cognitions pertaining to the self, society, and worldview in LGB participants as compared to controls who were not exposed to the same materials. By determining whether exposure has an impact on self-reported beliefs, the study aimed to explore whether use of Buddhist-derived practices could be beneficial to the LGB community. The results contributed to the knowledge base on what techniques may be useful for therapists when providing services to LGB people; however, the hypothesized outcome was not supported.

In the study, the independent variable was participants' assignment to one of three groups: a mindfulness group, a loving-kindness group, or a control group. The control group was exposed to peaceful imagery and asked to use the time to relax; this was the only stimulus the control group received. The mindfulness group was presented with a guided mindfulness meditation focusing on the breath, while the loving-kindness group was guided through a loving-kindness meditation. The dependent variables were the change on scores on three brief measurements given before and after the stimuli. The Emotional Symptom Checklist briefly assesses for states of anxiety, depression, and overall emotional state; the Unjust World Views Scale assesses a person's worldview and assumptions about relationships with other people; and the Remoralization Scale assesses self-perception on a variety of indicators of effectiveness, self-concept, and optimism.

Research Questions and Hypotheses

Given the multiple stressors faced by LGB people, the current study sought to examine whether Buddhist psychology can be applicable to the most impactful areas of participants' lives, and the research questions reflect this focus. The intention of this study was to explore whether Buddhist-derived practices of mindfulness meditation and loving-kindness practices could bring about improvement in the self-reported emotional state, self-perception, and worldview of LGB people. As such, the study addressed several questions about whether Buddhist practices could be useful in effecting change in attributes that correlate with mental health.

The study utilized brief mindfulness and loving-kindness exercises to see whether short-term changes occurred in participants' mental state. By examining outcomes where either mindfulness or loving-kindness practices were used, it was possible to determine not only whether these Buddhist-derived techniques had an effect on the variables being studied, but also whether one of the two techniques were more effective with the LGB participants on the three attributes being studied. Further, mindfulness meditation has a different focus than does loving-kindness practice, and because of these differences, it was possible that the practices may have had varying effects on the three measurements being used. The hypotheses tested reflected this belief.

Research Question 1: Can the Buddhist practices of mindfulness meditation and loving-kindness meditation impact the mental state, social attitudes, and worldview of LGB participants?

Null Hypothesis 1: There would be no significant differences in pre- and post-test score changes when mindfulness meditation and loving-kindness meditation participants' combined scores on the Emotional Symptoms Checklist, Unjust World Views Scale, and Remoralization Scale were compared to the control group.

Alternative Hypothesis 1: Mindfulness meditation and loving-kindness meditation would produce significantly higher combined change scores on pre- and post-test measures on the Emotional Symptoms Checklist, Unjust World Views Scale, and Remoralization Scale compared to the control group.

Research Question 2. Does mindfulness meditation have a greater impact on the emotional state of LGB participants than loving-kindness meditation or no meditation at all?

Null Hypothesis 2: There would be no significant pre- and post-test score changes among the mindfulness, loving-kindness, and control groups.

Alternative Hypothesis 2: There would be significant pre- and post-test score changes on the Emotional Symptoms Checklist in the mindfulness meditation group compared to the loving-kindness group and the control group.

Research Question 3: Does loving-kindness meditation have a greater impact on LGB participants' attitudes about self and others compared to mindfulness meditation, or no meditation at all?

Null Hypothesis 3: There would be no significant combined pre- and post-test score differences on the Unjust World Views Scale and the Remoralization Scale when both meditation groups were compared to the control group.

Alternative Hypothesis 3: The loving-kindness meditation group would show significant pre- and post-test combined score differences on the Unjust World Views Scale and the Remoralization Scale when compared to the mindfulness meditation and control groups.

Theoretical Framework

Although the effectiveness of Buddhist practices has been observed for thousands of years and continues to be sought by modern Buddhist practitioners who strive for balance and compassion in their lives (Gyatso, 2009), the theoretical mechanism of action within these practices is the subject of ongoing research. The broad applicability and usefulness of mindfulness and loving-kindness meditations was explored in this study using Lazarus and Folkman's (1984) transactional model of stress and coping. This theoretical model suggests a direct relationship between cognitive appraisal of a stressor and a person's ability to cope with it.

In their model, Lazarus and Folkman (1984) posited that individuals' ability to deal with life's stressors is directly related to the way they structure their cognitive response surrounding the stressor. This is described as an interplay between person, environment, and emotions in which appraisal is an active evaluative process that can enhance or inhibit successful coping when presented with stress. This model is similar in many ways to Buddhist psychological principles that disrupt ruminative thoughts and focus on awareness of the present moment. These principles offer a systematic methodology for increasing positive psychological attributes, including concentration, acceptance, positive regard for others, forgiveness, empathy, and letting go (Leppma,

2012). These are the cognitive tools that are effective with ameliorating the suffering that accompanies painful life experiences. In the case of LGB people, who may experience the cumulative effects of interpersonal and institutional stressors throughout their lives and therefore be at greater risk of psychological disorders (Meyer, 2013), developing or further refining cognitive coping skills may prove to be an essential component of LGB therapy. The implications of Lazarus and Folkman's transactional model of stress and coping as it relates to the Buddhist-derived practices used in the present study are explored more fully in Chapter 2.

Nature of the Study

The present study was conducted using an entirely Internet-delivered methodology, with group assignment, stimulus presentation, and data collection occurring using secure web-based applications. After securing the approval of the Institutional Review Board at Walden University, LGB people were recruited for this study by advertisements in online media as well as Internet social applications targeting the LGB population. An Internet-based design was selected to maximize the potential participant pool and to deliver the Buddhist-derived stimulus material in a controlled and consistent manner. The use of the Internet in studies of this kind are not uncommon, as the work of Wiist, Sullivan, Wayment, and Warren (2010) illustrated. They utilized an Internet-based study design to explore the health and psychological well-being of Buddhist practitioners, and the current study employed similar methods of collecting data from the LGB population. Online research made sense for the LGB community not only because online socialization is increasingly how some subsets of the population meet,

such as gay men (Zablotska, Holt, & Prestage, 2012), but also because LGB people may be reluctant to come forward in vivo due to stigma or isolation related to their sexual minority status (Hartman, 2011).

This study divided participants into three groups in order to examine relationships between Buddhist practices and various brief measures of mental health, self-perception, and worldview. The independent variables in this study were assignment to the Internet-delivered stimuli groups: guided mindfulness meditation, guided loving-kindness meditation, or a control group exposed to peaceful imagery. The dependent variables of interest were outcome measures on three measures: the Emotional Symptoms Checklist, the Remoralization Scale, and the Unjust World Views Scale. The study recruited adult LGB participants who self-certified that they are 18 years of age or older. Data were collected via an online survey methodology in which the three measures were administered before and after exposure to the various stimuli according to group assignment. Scores were compared within participants in a pre- and post-test comparison across the three scales and in a pre- and post-test comparison of a combined score on the three scales. Data were collected anonymously, and participants' data were identified only by identification numbers. Data analysis occurred via use of the social science statistical software package, SPSS.

Definitions

Mindfulness meditation was defined in this study as a period of sustained attention focusing on one's breathing. A close synonym for this practice is simply "awareness." This is consistent with the definition used in other psychological studies and secular or

medical practices. This definition is similar to Kabat-Zinn's explanation (1991)—that mindfulness practice is "knowing what you are doing while you are doing it" (chapter 1 paragraph 50).

Loving-kindness meditation means the meditative practice of wishing oneself and others well in a systematic, repetitive manner. Salzberg (2011) described loving-kindness as "a quality of the heart that recognizes how connected we all are… extending friendship to ourselves and others" (p. 178), and the definition adopted in this study resonates with her description of loving-kindness, echoing the original Buddhist usage.

Gay is a descriptor used to identify men whose primary physical and emotional attraction is to other men. The term gay may refer to male attraction in abstract descriptions, not necessarily attached to individuals themselves. When not differentiated from other genders or sexual orientations, it may also refer to the community of people with same-sex attractions.

Lesbian is a descriptor used to identify women whose primary physical and emotional attraction is to other women. It may also describe female same-sex attraction without necessarily attaching it to a person.

Bisexual is a descriptor defined here as a person of any sex who is equally physically and emotionally attracted to men and women. This term may also define the concept of bisexuality as opposed to describing a single person or group of people.

Assumptions

The accuracy of any relationships and associations drawn from analyses conducted on data yielded in the present study is dependent upon certain assumptions.

First, because the study was conducted online, there was not a way to assure verification of several factors that are central to the research questions. The primary assumption made is that participants who chose to participate in the study accurately conveyed their demographic data, including their identity as LGB people. This study focused on LGB people as the population of interest, but it was beyond the scope of the study to discuss with participants their reasons behind identifying themselves as LGB people. As discussed in Chapter 2, there are many reasons that influence a person's decision to self-disclose an LGB identity. Behaviors such as sexual intimacy with people of the same or opposite sex are not always indicative of sexual orientation, and even after men and women come out with a gay or lesbian identity, their sexual attraction and behaviors can change over time (Subhi et al., 2011). Therefore, this study assumed that the self-identified group membership as an LGB person was accurately portrayed by each participant, although definitions of these terms may vary by individual.

Another key assumption made in this study was that participants responded honestly and actively participated in the guided meditations. Again, the online study methodology produces limitations in verifying whether participants are providing accurate data, including how they responded on the pre- and post-exposure surveys. There are no known ways to safeguard data from random response styles. Additionally, because participants completed the study alone and without observation by the researcher, it was not possible to know whether they were actively participating in the guided meditations. Every effort was made in the study's design to minimize fatigue, boredom, or other factors that might contribute to participants deciding not to actively

engage in the study, but levels of engagement and attention will vary between individuals. The study assumed that participants would engage fully and analyzed data under that assumption.

Scope and Delimitations

The scope of the present study was intended to address three factors thought to be salient to mental health issues experienced by LGB people; however, the scope was limited by the online nature of the study design. Mindfulness, loving-kindness meditation, and other Buddhist-derived practices are being widely researched in the body of literature, and have recently been found to improve overall functioning in a mixed group of psychiatric patients with varying diagnoses (Bos, Merea, van den Brink, Sanderman, & Bartels-Velthuis, 2014). Although ultimately the research questions sought to address how use of Buddhist practices could be applicable to LGB people with mental health concerns, and how these techniques may best be utilized in therapy, the study's direct exploration of these issues was limited by the inability of the researcher to directly observe participants in the study. The Internet-driven delivery of the study and associated lack of researcher follow up and monitoring of participants necessarily limited the types of questions that could responsibly be asked. For example, inquiries about serious mental health issues, psychiatric diagnoses, or treatment needs were beyond the scope of this study. Participants were not followed and mental health condition were not monitored; therefore, more precise definitions of mental health were not utilized. The Emotional Symptoms Checklist provides a high-level summary of symptoms consistent with depression, anxiety, and agitation (Zauszniewski et al., 2004); however, it is not

diagnostic, nor does it elicit information about serious mental health matters. The present study was not intended to be a mental health intervention and consequently did not advertise participation in the study as a mental health treatment.

Considering these limitations of the study, the measurements utilized here broadly assessed mental health attributes associated with both mental disorders and mental health. As noted, the Emotional Symptoms Checklist is a high-level assessment of items correlated with depression, anxiety, and agitation. The Remoralization Scale (Vissers, Keijsers, van der Veld, de Jong, & Hutschemaekers, 2010) was chosen for inclusion as a brief measurement of self-perception, which is important in most definitions of mental health and part of the appraisal process noted by Lazarus and Folkman (1984). Inclusion of the Unjust World Views Scale (Lench, 2007) was included as a brief measurement of how participants view others and the world around them. These areas of focus—emotional status and view of self and others—are indicators of cognitive functioning in areas that are typically impacted by mental health disorders. Given the fact that LGB people reportedly experience greater incidence of mental health issues (Meyer, 2013), and because this is the broader social issue under investigation in this study, the three measures were chosen for their ability to briefly assess cognitions related to emotions and appraisal of self and others.

The subject of interest—LGB mental health and the role that mindfulness practices may play in future therapeutic modalities—necessarily limited the participant pool to sexual minorities. People identifying as heterosexual were excluded from the study because their mental health needs are extensively addressed in the literature, often

by default, because many studies do not take into account the special needs of sexual minorities. Although there are many ways to identify one's sexuality, there are also group identifications related to gender identity that are frequently discussed together with sexual orientation. For example, in their text on the psychology of sexual minorities, Clarke et al (2010) discussed the needs of LGBTQI or lesbian, gay, bisexual, transgender, queer, and intersex individuals. The present study honored these distinct identities and validated their own unique needs; however, only LGB -identified participants were recruited for inclusion. This decision was based in part on the difference between sexual orientation and gender identity, the latter of which transgender/trans, queer/questioning, and intersex individuals typically align with more naturally. As articulated by Clarke et al, the experiences of LGBTQI people are unique and vary widely when other factors such as biological sex, ethnicity, indigenous status, and myriad other factors are assessed. For sake of data manageability, simplification of demographic descriptors into the categories of lesbian, gay, and bisexual help to maintain the study's focus on sexual orientation as opposed to gender identity. It should be noted that this did not exclude trans or intersex people; by leaving gender identification as an open variable, people of any gender identification could participate in the study based upon their sexual orientation alone.

In light of the study's focus on LGB adult participants, the study's findings were generalized to the LGB adult population, although some exceptions are worth noting. It is possible that the study's online recruitment and methodology might have necessarily limited participants to those belonging to socioeconomic groups that have readily

available access to technology in the home or workplace. Additionally, because the study was offered only in English, it is possible that the results may not generalize well to adults for whom English is not their primary language. Further, as previously mentioned, the decision to keep gender identities separate and unnamed in this study meant that any significant findings could not be generalized to the transgender or intersex community, but would instead need to be replicated in future studies with those populations.

Limitations

Although every effort was made to ensure that participants were freely able to give consent to participate, every online study encounters the challenges inherent in a web-based environment. The researcher clearly published that the study required participants to be at least 18 years of age, a requirement intended to ensure that youths are not involved without parental consent, but there was the possibility that participants may have misrepresented their age. One concern at the outset of the study was that of attrition; without offering compensation in exchange for participation, it was possible that participants may not complete the study, which involved a considerable time investment in one sitting. However, other online studies have gathered sufficient sample sizes to make statistical interpretations of the data collected without using incentives—see, for example, Vansintejan (2013)—and it was believed that the present study would be equally well-received by the LGB community.

This study was not intended to act as a treatment for any existing psychological disorder or medical condition, and this fact was emphasized to study participants. Consequently, any significant findings would need to be analyzed as preliminary

measures indicating the potential suitability of Buddhist-derived practices as therapeutic techniques. It is understood that while any statistically-significant changes had the potential to contribute to the body of literature, any vast generalities about the efficacy of Buddhist psychological therapy techniques cannot be made without replicating the findings, and perhaps utilizing the principles with willing participants in test group sessions with LGB people who have verifiable psychiatric diagnoses. Apart from these cautions pertaining to applicability of study findings, there are no known biases present in the study design apart from the limiting nature of an online study as previously discussed.

Significance of the Study

The study described here possesses important implications for the field of psychology, and has the potential to enact real social change in the lives of many LGB people who seek therapy. The mental health situation of LGB people has become urgent in some subsets of the overall population, notably including LGB youths. Young LGBs seem to be especially affected by the disproportionately high rates of mental illness, substance abuse, and suicide seen in the LGB community overall, and these differences persist into adulthood (Needham, 2012). If the alternative hypotheses were supported by data, it would be an early indication that Buddhist psychological principles are effective with LGB people. Further exploration would be needed to determine how to implement these ideas in the context of individual and group therapy, and any significant results would need to be replicated by research and practice. By exploring whether Buddhist psychological principles have any positive effect on LGB people, this study could bring

the field of psychology that much closer to addressing and possibly effectively attending to the mental health care needs of this unique and diverse community.

The study's design enabled comparisons to be made between two specific Buddhist-derived practices, which can inform future researchers and practitioners alike which methods may be more effective with LGB people. The study examined the effects of both a guided mindfulness meditation and a loving-kindness meditation on LGB participants. Outcomes were measured in differences between pre- and post-exposure scores on three measures tapping into the constructs of depression, anxiety, agitation, self-perception, and view of others and the world. Although the measures are brief, they offer the advantage of being able to examine both emotional states and cognitive appraisals of self and others. The applications of this knowledge can be potentially far reaching. Not only could the data support various group and individual therapy techniques utilizing similar Buddhist practices, but family therapies with LGB people can be informed by the results as well.

Although the present study offers a modest contribution to the growing body of knowledge on best practices with LGB people, the potential for social change is real. If the data supported the hypotheses that Buddhist practices offer some advantages for use with LGB people, therapists and medical practitioners could benefit from this knowledge by utilizing or recommending mindful awareness practices with their patients. Researchers can build upon the present study by replicating results with known clinical populations. Ultimately, the most impact could be seen in LGB people themselves, as they stand to benefit most from any interventions that alleviate the harmful effects of

cumulative social and intrapersonal stress. The applicability of the study is limited to adults, since only adults are able to provide consent to participate in the study; and, as previously noted, generalizations are limited to sexual minorities not specifying gender identity.

Summary

LGB people experience disproportionate amounts of stress relating to their status as sexual minorities. The accumulated effects of minority stress are known to have deleterious effects on the mental health of this population (Meyer, 2013; Meyer et al., 2008), and even the therapeutic relationship is not immune from small slights that can negatively impact LGB people in therapy (Shelton & Delgado-Romero, 2011). It is clear that effective treatments are needed for LGB people given their higher incidence of substance abuse and mental disorders, often beginning in adolescence and persisting into adulthood (Needham, 2012). The risk of suicide in this population is high given the higher incidences of mental disorders (Bolton & Sareen, 2011), a fact which further supports the need for effective therapeutic interventions.

Simultaneously, the applications of Buddhist schools of thought are becoming increasingly researched and practiced within the field of psychology (Kornfield, 2008; Shapiro & Carlson, 2009; Wallace & Shapiro, 2006). Mindfulness has been recognized as a medically-effective intervention in various populations for more than 20 years (Kabat-Zinn, 1991), and the applications of mindfulness have expanded greatly in the past few years. Mindfulness is now supported by the literature as efficacious in the treatment of anxiety (Vollestad et al., 2012) and depression (Geschwind, Peeters,

Drukker, van Os, & Wichers, 2011), as well as other psychological disorders and a host of medical conditions. A systematic study of mindfulness and other Buddhist-derived practices such as loving-kindness meditation has not yet been undertaken with the LGB community; the present study sought to fill this gap by addressing the clinical needs of LGB people with the research-supported benefits of Buddhist practices. In the chapter that follows, a review of the current literature in the field will explore in greater detail the special needs of this group, as well as the potential that Buddhist practices have toward meeting them. Chapter 3 will explore the research methods used in the study, including data analysis techniques used to determine whether the hypotheses were supported by data collected.

Chapter 2: Literature Review

Therapy, Mindfulness, and the LGB Experience

Although there is an abundance of literature that individually addresses therapy theory, Buddhist psychology and the practice of mindfulness, and the unique mental health needs of the LGB population, there is a significant gap in the literature where these content areas do not intersect. Aside from the multiple theoretical orientations that guide most therapists' practice with their clients—such as psychodynamic, cognitive behavioral, and humanistic approaches—there are emerging ideas about how the basic tenets of Buddhist thought can be of therapeutic value, both to clinicians and the populations they serve (Shapiro & Carlson, 2009). The use of mindfulness is a practice now seen not only in the context of Buddhist religious communities, but in medical and psychological applications as well (Hollis-Walker & Colosimo, 2011). Simultaneously, there is a recognition that providing therapy to LGB people necessarily involves effort on the part of the therapist to be cognizant of issues that are usually present when a person has an LGB identity; often, these issues arise not from the identity itself, but from the interactions that the person has with society (Pachankis & Goldfried, 2004). Although the use of Buddhist principles in psychology has shown great benefits in other populations and for myriad physical conditions, as of this writing, there has not been a publication that provides data on the use of Buddhist psychology as a therapeutic tool to improve the mental health of LGB people. The current study built upon the existing body of knowledge present in the literature to examine whether this type of treatment may be beneficial.

The present chapter presents a synthesis of research on the two constructs of interest: LGB mental health needs and Buddhist-derived treatment modalities. The chapter begins with an explanation of how this study's research was conducted. A brief history of same-sex attraction and sexual orientation is provided to orient the reader to developments in how sexuality has been conceptualized over time. Distinctions between lesbian and gay identities and bisexuality are explored, and the process of LGB identity development, or *coming out*, is explained as an instrumental emotional and psychological period of development. A discussion of the mental health needs of LGB people ensues following explanation of frequently-encountered experiences of minority stress, discrimination, heterosexism, and homophobia, all of which contribute to an accumulation of negative affect over time. Following the review of LGB development and mental health needs, a discussion of Buddhism is presented. Various types of Buddhist practices are explored, and religious and secular uses of Buddhist thought are considered. The relationship between traditional Buddhism and Buddhist psychology is outlined, and seminal works in applied mindfulness and meditation techniques within the fields of medicine and psychology are discussed. Finally, the application of Buddhist practices such as mindfulness meditation and loving-kindness are discussed in light of LGB mental health needs.

Literature Review Strategy

The strategy used to review the current body of literature focused on examining recent publications—or those within the past 10 years, excluding fundamental theories predating that range of time—that have covered the core content areas pertinent to the

current study. Areas of concentrated focus on LGB content include LGB identity development; LGB-specific mental health issues and therapy techniques; and LGB spirituality. To address the current body of knowledge on Buddhist thought and its intersection with psychology, a second literature review was conducted with a focus on mindfulness, Buddhist practices, and Buddhist-informed psychology. To provide a holistic literature review, a branching tree model of research was used; that is, when recurring themes in the literature abounded, these areas were then researched in greater depth to be included in the discussion.

The literature review was conducted using interdisciplinary academic search engines. Databases used to search for relevant keywords included: Academic Search Complete; CINAHL Plus with Full Text; EBSCO eBook Collection; ERIC; Health and Psychosocial Instruments; Health Technology Assessments; LGBT Life with Full Text; MEDLINE with Full Text; Mental Measurements Yearbook; NHS Economic Evaluation Database; NTIS; Political Science Complete; PsycARTICLES; PsycBOOKS; PsycCRITIQUES; PsycEXTRA; PsycINFO; PsycTESTS; and SocINDEX with Full Text. Additionally, books and data sources recommended by the author's dissertation committee chairperson were read, and citations were explored to clarify ideas using primary source data. Pertinent research presented at regional psychological conferences, as well as newly published articles on the topic of mindfulness as distributed via David Black's online Mindfulness Research Monthly e-mails, were analyzed and evaluated for inclusion in the analysis during the literature review process as well. In particular, keywords and content areas pertaining to LGB issues in therapy, Buddhist thought,

mindfulness, and meditation were used throughout the literature review. Specific keywords used in combination with one another included: gay; lesbian; bisexual*; LGB; Buddhis*; psychology; "mental health;" mindful*; meditat*; therapy; social*; loving-kindness; and coping.

Theoretical Foundation

The present study explored whether Buddhist practices produce measurable differences in self-reported mental health attributes including psychological states, self-perception, and worldview, and the mechanism explaining this change can be described by Lazarus and Folkman's (1984) transactional model of stress and coping. Their theoretical model of coping posits that cognitive appraisal is the primary means by which stressors can be effectively managed.

Lazarus and Folkman's (1984) theory suggests that appraisal occurs in two phases and is essentially a process of evaluation. In their explanation, a person encounters a stressful life event, then undergoes first a primary appraisal, and then a secondary appraisal. The primary appraisal is the process of categorizing an event or interaction with the environment into one of three potential identifications: benign-positive, irrelevant, or stressful. In some research, this phase is labeled as the person's belief (see Newton & McIntosh, 2010). The first two categories require less secondary processing than events that are labeled as stressful. In those instances, secondary appraisal becomes crucial, because its task is to evaluate what can potentially be done to alleviate the stressful situation or change the outcome. Lazarus and Folkman described secondary appraisal as a complex interplay between the person's cognitions and the environment or

situation. What a person thinks is influenced by options available in the environment, and thoughts can alter how a person chooses to behave or respond.

Numerous studies have examined Lazarus and Folkman's transactional model of stress and coping as it relates to how various populations react to life stressors; however, to date, no studies have applied the transactional model to LGB people and their coping. Ben-Zur (2005) utilized the model to examine how cognitive appraisals mediate coping in a community sample. Findings indicated that as emotion-focused coping increased, so did distress levels of participants. Ben-Zur observed that the transactional model of stress and coping highlights the relationship between coping style and outcome, which is similar in application of the theory as the present study.

Another study utilized the Lazarus and Folkman model to explain individual differences in coping styles among caregivers of children with disabilities, emphasizing the model's observation that the appraisal of events varies among people and is often more important than the potential stressor itself (Kelso, French, & Fernandez, 2005). Newton and McIntosh (2010) echoed this finding in their study of parents with disabled children. They found that religious beliefs mediated coping style in the same way that Lazarus and Folkman postulated; that is, it is the appraisal of the event that relates to stress as opposed to the event itself. The fact that religious beliefs adhered to the transactional model of coping is important to the present study as it uses a secular application of Buddhist religious principles.

Although no studies have been conducted to date using the transactional model of stress and coping within the LGB community, one study examining medication

adherence among HIV positive drug users used the model as a framework for understanding how appraisal of supports and self-efficacy impact treatment. Over 60% of the participants in the study identified as gay or bisexual (Atkinson, Schonnesson, Williams, & Timpson, 2008).

The transactional model of stress and coping as presented by Lazarus and Folkman (1984) was selected as the theoretical foundation of the present study because its assumptions about the causes of stress mirror the proposed mechanism of action in Buddhist thought. Lazarus and Folkman postulated that stress is not objective; rather, any event is appraised and reevaluated by the individual cognitively, first to assess the situation and then to assess potential responses. The experience of stress, then, is highly subjective and dependent upon the individual's cognitions surrounding the nature of the stressor and possible ways of responding to lessen its effects. This is similar to the concept of mindfulness as set forth in Buddhist theory. Traditional Buddhist mindfulness occurs by way of meditation, which is at its core heightened attention paid to the present moment and taking a nonjudgmental stance on issues at hand to achieve a sense of well-being; in short, Buddhism advocates present-moment awareness to maximize happiness and avoid suffering (Wallace & Shapiro, 2006). Mindfulness offers a method of nonjudgmental appraisal that reduces emotion-focused coping styles and replaces them with more balanced appraisals.

The present study expands the application of Lazarus and Folkman's (1984) transactional model of stress and coping to explain how mindfulness acts as a cognitive mediator in stressful situations faced by LGB people. Often, stressors for LGB people

may be cumulative in nature and build upon prior stressors faced earlier in a person's lifetime; in these cases, minority stress is the term used to explain the source of distress faced by the individual belonging to a minority group, and it plays a definitive role in the development and maintenance of mental health problems (Kuyper & Fokkema, 2011). Although the transactional model has not been studied specifically with the LGB community, it has been found to be accurate as a predictor of the ways in which ethnic minority youths cope with discrimination and psychological distress. Cassidy, O'Connor, Howe, and Warden (2004) found that just as the transactional model predicted that stress would be regulated by cognitive appraisal, self-esteem moderated the level of distress felt by the young ethnic minority members in their study. Their work supports the notion that the transactional stress model has utility in minority groups. Building on this idea, the current study examined whether guided meditations can induce short-term changes in how LGB people evaluate their current state, without reference to any particular stressor. As people who self-identify as sexual minorities, the underlying cumulative stressors serve as ongoing stressors in the transactional model; the Buddhist-derived stimuli serve to mediate the cognitive appraisal process to achieve effective coping. In order to better understand the stressors typically associated with LGB identities, it is beneficial to analyze the roles that history, identity development, and society play in maintaining sexual minority stress.

Lesbian, Gay, and Bisexual Mental Health

Developmentally, LGB people move through a unique period of identity development that, unlike members of other minority groups, they generally begin to

undergo alone (Cass, 1979). Although other minority groups face social and intrapersonal stressors due to their minority status, they are often able to find support in their families of origin, who typically share their ethnicity, religion, or other minority status. Conversely, LGB people often discover that they might possess an other-than-heterosexual identity on their own, and they may struggle with this realization before sharing it with others. The process of first identifying oneself as lesbian, gay, or bisexual—commonly known as *coming out*—is the first of many steps in sexual identity formation. Once *out*, LGB people in many cultures must cope with stressors from any number of sources: Family, friends, popular media, religious institutions, or social attitudes can potentially deliver negative messages pertaining to a same-sex sexual orientation (Halpin & Allen, 2004). The cumulative effects of these stressors can negatively impact the mental health of LGB people in many ways, and it is crucial that mental health providers respond with sensitive, targeted interventions aimed at ameliorating the suffering of this group.

Development of a Pathology: Homosexuality in History

Although homosexuality is a "natural variant of human sexuality" (Morgan & Nerison, 1993, p. 133) that has existed throughout time and in every culture, the reaction to same-sex attraction and behaviors has been shaped by social, political, and religious contexts. Cultures have dictated how sexual behavior is judged and normalized. Halperin (1993) noted sex itself is a neutral, physiological act; sexuality, according to the constructionist point of view, is an outgrowth of socially-proscribed meaning, as seen as far back as in ancient Athens. At that time, sexual roles resulted from strict social strata,

where high-ranking male citizens could choose either women or adolescent boys as sexual partners because they comprised the lower ranks. As eras progressed, cultures throughout the world have continued assigned attitudes and norms to sex. For centuries, the predominant attitude toward homosexuality has been influenced by Judeo-Christian religious values that reference various Biblical passages condemning sodomy. These values commingled with the law in various countries, making homosexual behavior punishable by death or imprisonment from the 16th through modern day (Morgan & Nerison, 1993).

Sex and psychology. In the United States of America, the end of the 19th century marked the beginning of a new era of understanding—and defining—sexuality. Sexual attitudes began to change in the latter part of the 1800s. Sexual relationships moved from being motivated by virtue and procreation to a new realm involving emotional connectedness and pleasure (Katz, 2003). By the turn of the century, a dichotomy of sexualities had taken hold in the consciousness of Americans; for the first time, there was a definable identity surrounding sexual behavior, and heterosexuality was conceived. Theorists argue that heterosexuality could not exist without having a counterpart, which could partially account for the establishment of homosexuality as a social construct (Levy, 2009). Katz observed that heterosexuality assumed the role of normal sexuality while homosexuality, as its opposite, implied abnormality, if not immorality as well.

Adding to the early 20th century discussion of how sex intersected with social norms, Freud discussed the importance of psychosexual development and the extent to which sexual identity affected psychological health. Freud wrote about sexuality in such

a way that homosexuality was not pathologized; rather, he described it as an "inversion" of the typical sexual object (Freud & Brill, 1920, p. 16). Freud observed that homosexual people could be exclusively attracted to members of their own sex, or be attracted to both sexes, and they could elect to not act on their attractions. He clearly expressed support for homosexual people to become psychoanalysts and stated that homosexuality was not, in itself, an illness—yet, Freud still believed that the healthiest form of sexual activity existed in physical unions between men and women (Friedman & Downey, 1998).

For decades after Freud's postulations became widespread (and in the world of psychoanalysis, accepted as fact), U.S. culture minimized the existence of LGB people. Alfred Kinsey, another important researcher in the world of sexuality, brought attention back to the subject of sexuality in the 1950s as he documented the sexual behaviors of hundreds of adults in an ongoing study. Kinsey produced data from interviewing adults in many locations across the United States, and the data supported a substantial amount of same-sex sexual activity. Kinsey emphasized that while some people are exclusively attracted to members of the same sex and others reported attraction to those of the opposite sex or both sexes, the range of behaviors and identities was so vast that categorizing people as heterosexual or homosexual was an overly simplistic view. Rather, he suggested that sexuality is better described as a range, or on a continuum, and the range of sexuality from exclusively homosexual to exclusively heterosexual—and everything in between—became known as the Kinsey scale (Kinsey, Pomeroy, & Martin, 2003). Kinsey was the first to notice that sexual fluidity exists.

A contemporary of Kinsey, Evelyn Hooker, played a large role in advancing the cause of normalization of gay and lesbian attraction during her research in the 1950s. Hooker's gay male friends suggested to her that she was duty-bound to do something no other researchers prior to her time had done: document the lives of gays who were not suffering from psychopathology. The predominant belief system held by researchers and clinicians alike was that gay and lesbian people suffered from at least some type of basic maladjustment; there was no such thing as a model of a psychologically healthy gay man or lesbian. Working in conjunction with the University of California at Los Angeles with funding secured from the National Institute of Mental Health—although interviewing participants privately from her home office to avoid academic repercussions for herself and social backlash for her participants—Hooker documented the psychological health of many gay men (Hooker, 1993). Forty years later in a retrospective essay, she reflected on the joy she felt when some of the best clinicians in the field of psychiatry could not discern the projective test results produced by gay male participants from the control group of heterosexual men. Her work provided support for the notion that homosexuality in itself was not pathological.

Civil rights and social change. In the tumultuous decade of the 1960s, the gay rights movement--fueled by the successes of the larger civil rights movement, war protests and political upheaval—gained modest successes with advancing civil rights for gay and lesbian people. The goals of the gay rights movement had been set earlier in the 1950s by such groups as the Mattachine Society in the California Bay Area, who organized interested people into discussion groups and political action groups (Simon,

2010). By the 1960s other organized groups such as the lesbian organization Daughters of Bilitus became increasingly dissatisfied with remaining invisible in their communities, and they joined the political protests to advance the cause of equal treatment for gays and lesbians. The intolerance of discrimination finally peaked in 1969 in New York's Greenwich Village, when groups of homeless people assisted gay men, lesbians, and drag queens who fought back against a standard police raid that occurred at the Stonewall Inn, a locally popular gay bar (Simon, 2010). For several days that followed the initial arrests at the Inn, the resistance of arrest and police control continued, marking one of the most noteworthy events of the gay and lesbian movement toward equality. The events did much to change not only the local perception of gay rights, but it also sparked a larger sensibility among gay and heterosexual people alike that lesbians and gay men were fundamentally Americans, and as such, they deserved fair treatment and equal rights under the law.

The cumulative effects of research, visibility, and activism eventually made an impact on the medical and psychological community. A few years after Hooker's scientific results were published and the Stonewall Riots occurred, in 1973, the American Psychiatric Association made the landmark decision to remove homosexuality from its *Diagnostic and Statistical Manual of Mental Disorders* (Levy, 2009). Although it took decades, the American Psychiatric Association's removal of homosexuality from its list of mental health disorders removed some stigma associated with an LGB identity. The removal of the diagnosis was not as straightforward as many would have liked, however. To satisfy clinicians who clung to the idea that same-sex sexuality inherently implied

psychopathology, a new diagnosis was added: ego-dystonic homosexuality. Cabaj (2009) recalled his personal involvement with lobbying for the removal of this diagnosis during the next DSM revision. Ego-dystonic homosexuality had been defined in the psychological literature as the state of being dissatisfied with one's homosexuality, and the dissatisfaction itself was deemed to be the psychological difficulty. Cabaj and a few colleagues attempted to present their viewpoint that this diagnosis only made reparative therapy, or the practice of trying to convert homosexual people to a heterosexual orientation, permissible, and that it was ultimately damaging to LGBT people. After several meetings with the publishing review board, the diagnosis was removed from the third revision of the DSM; however, in its place, the diagnosis of "sexual identity disorder not otherwise specified" was added. As of this writing, this diagnosis is no longer present in the most current version of the DSM (*DSM-5;* American Psychiatric Association, 2013), and the remaining diagnoses related to sexual identity and activity do not focus on same-sex sexuality (IsHak & Tobia, 2013).

Progress in the gay rights movement. As years have passed, the gay rights movement has progressed internationally. Advocates have fought for gay rights, and although some battles have been lost, others have been won. The United States military implemented a policy of silent service for gay and lesbian military members, only to see it repealed by President Barack Obama years later so that currently sexual orientation is a nonissue in military service (Obama, 2010). In some U.S. states and other countries, it is legal for same-sex couples to marry; however, this fact has not come easily, and a great deal of political debate still surrounds the question of whether gay marriage somehow

strips the union of its legitimacy or other meaning (Cott, 2011). Despite this debate, progress continues, as indicated by the recent repeal of the Defense of Marriage Act—widely known as DOMA—a repeal that prevents discrimination based on same-sex marriage at the federal level (Edwards, 2013). As of this writing, 18 states plus the District of Columbia have passed legislation allowing same-sex marriage (CNN, 2014).

The topic of homosexuality and the decriminalization of homosexual sex has been addressed at great length by the United Nations and many independent countries around the world. An important document, the International Covenant on Civil and Political Rights (ICCPR) is a multinational treaty that has been used by the Human Rights Committee—its associated legislative body—to uphold basic human rights in many countries, including rights about sexual orientation. The ICCPR has been used to decriminalize homosexuality in many countries, and other similar pieces of legislation have supported gay and lesbian civil rights throughout the world (Ewins, 2011). However, as Ewins discussed, the progress made in Western countries far exceeds that which is seen in some parts of Asia and most of Africa; Uganda's current proposal to make homosexuality punishable by death or life in prison—even risking their preferential trade status to do so—clearly illustrates the seriousness of gay human rights violations still affecting the world. Further, major human rights abuses are prevalent in Russia; under the leadership of Vladimir Putin, legislation in Russia has focused on everything from outlawing counseling and support for LGBT people by calling it propaganda, to encouraging lenders to stop doing business with LGBT people. Reports of violence against LGBT individuals at the hands of extremist groups are increasingly prevalent in

Russia as well (Michaelson, 2014). The subject of homosexuality is a divisive force in politics and interpersonal relationships and will likely continue to be for years to come; and, for as long as there is controversy surrounding gay and lesbian people, there will be societal forces with the potential to inflict psychological damage on this population.

Bisexuality

Just as history, rights, and research have evolved over time for the gay and lesbian community, the experiences of bisexual people and their communities, lives, loves, and interests have undergone similar evolutionary changes; however, it is important to note that the experiences of bisexual people are distinctly different from their gay and lesbian counterparts. Bisexual people have been cited by some researchers as being at higher risk of mental health problems including depression, anxiety, substance abuse, and suicide, due in part to their inability to identify wholly with either heterosexual or gay and lesbian relationships and life experiences—so much so that bisexuality has been linked to poorer social adjustment and well-being (Kertzner, Meyer, Frost, & Stirratt, 2009). Although bisexuality is represented in the LGB community, the lives of bisexual people themselves are not always accurately reflected in the initiatives of the gay and lesbian community as a whole. Part of this situation relates to misperceptions of what bisexuality is and what bisexual people look like. When bisexual people are partnered in relationships, they tend to be identified by others as either straight or gay/lesbian, depending upon the gender of their partner—essentially, causing their identity to be eclipsed (Ochs, 2011).

Ochs (2011) enumerated some of the common beliefs held by gay and straight people alike regarding bisexual people and used these misperceptions to illustrate the need for continued momentum in the bisexual community to advocate for its own needs. She noted that bisexuality has not been taken seriously as a sexual identity, and that some people believe bisexuals are either heterosexuals having a temporary same-sex fling, or that they are truly gays or lesbians who cannot allow themselves to fully come out or surrender their ties to heterosexuality. Further, she noted that bisexual people have been variously misperceived as confused; promiscuous; poor choices for long-term relationships, since they presumably are not happy without dating males and females simultaneously; and far-reaching statements ranging from "every person being inherently bisexual" to "no one could ever be a true bisexual." Several of these misperceptions are echoed in other research as well (Klesse, 2011; Obradors-Campos, 2011; Yost & Thomas, 2012).

In reality, bisexual people are just as diverse as their heterosexual, gay, and lesbian counterparts in terms of personal diversity, relationship preferences, fidelity, and sexual behaviors. The fact that there is such confusion and mixed feelings about bisexuals may relate to the idea of mononormativity: the idea that sexual orientation is a binary concept with exactly two choices, gay or straight (Clarke, et al., 2010). Bisexuality forces society and individuals to examine the gray area that does not comfortably fit into a readily available social construct. Additionally, bisexual people are often overlooked because of their relative invisibility. A bisexual woman who is dating a man could reasonably be perceived to be straight, whereas a bisexual man who is dating a

man could be perceived to be gay just as readily (Ochs, 2011). It is only after making a concerted effort to understand a person beyond making assumptions about their relationships that bisexuality emerges as an independent sexual orientation.

If understanding bisexual behaviors and attractions have historically not been well understood, the process of adopting a bisexual identity is even less so. In an important longitudinal study, Diamond (2008) sought to understand whether bisexuality represented a transitional state on the way to a mononormative identity, or whether it could be considered a true sexual orientation. The third option she examined was whether participants across the 10-year study would describe themselves as having increased sexual fluidity, and potentially avoided labeling themselves. The women in her study all initially identified as bisexual. Her findings were striking: Data supported the idea that bisexuality was truly its own orientation, and although many women chose to identify as having greater sexual fluidity as opposed to adopting a label, the least amount of support was provided for the idea that bisexuality was a transitional phase between assuming a permanent straight or lesbian identity. Diamond examined the work of other researchers who had arrived at similar conclusions as well. These findings indicate that it is inaccurate to conceptualize bisexuality as a state of confusion or a stop along the way to a lifetime of same- or opposite-sex attractions. Bisexuality, then, is its own sexual orientation; however, scholars and researchers continue to explore the best ways to represent it, understand it, and study it.

Homophobia, Heterosexism, Biphobia, and Sexual Prejudice

Although homosexuality has existed throughout all time, the feelings of hatred and disgust experienced by people in contemporary society are a relatively new social reaction to an age-old identity. There are several perspectives in the literature regarding how and why this negative societal reaction to LGB people involves religiosity (Fulton, Gorsuch, & Maynard, 1999; Olatunji, 2008). Researchers, clergy, and secular authors alike have published much on the subject of how interpretations of religion may support prejudiced beliefs against LGB people (Rosik, Griffith, & Cruz, 2007; Whitehead, 2010). The beliefs held by major world religions necessarily become part of the social fabric of regions that adopt those religions, so it is not surprising that the current sociopolitical culture in the Western world has been significantly influenced by current interpretations of religious doctrine.

Religion and discrimination. One of the most basic religious justifications of antigay sentiments relies on a strict interpretation of various Biblical passages common to several Christian religions. As Fulton, Gorsuch, and Maynard (1999) observed, certain texts in the early books of the Bible include negative statements about same-sex behavior, and it is these texts to which fundamentalist Christians refer when supporting their antihomosexual beliefs and attitudes. Their research indicated a stronger correlation between fundamentalist Christians and antigay attitudes when compared to nonfundamentalist Christians whose belief sets were more concerned with morality than strict adherence to the Bible. Numerous other studies have documented the relationship between religiosity and antigay attitudes as well (Grace, 2008; Harris, Cook, &

Kashubeck-West, 2008; Rosik, 2007; Rosik, et al., 2007; Wilkerson, Smolenski, Brady, & Rosser, 2012). Research has supported the fact that adherence to conservative religious values is related to reacting to gay and lesbian people with disgust (Olatunji, 2008); further, right-wing authoritarianism (RWA) as a sociopolitical construct that embodies self-righteous deprecation of any groups that differ from the majority has also been found to relate to a religious orientation and various types of antigay attitudes (Wilkinson, 2004).

Researchers have examined the relationship of religion to prejudice and have developed theories to help explain the correlation; most notably, Gordon Allport's theories have been the foundation on which many subsequent studies have been based. Various studies conducted by Allport have established several key points to be true: that people who attend church tend to show more prejudice compared to people without any religious preferences and that there is a bell-shaped curve that describes exceptions to this phenomenon. That is, while a majority of churchgoers in Allport's studies demonstrated more racial prejudice than nonchurchgoers, a small minority of churchgoers were actually less prejudiced (Allport & Ross, 1967). Allport's impression of this phenomenon was that churchgoers are generally either externally motivated by their peers to belong to a religious group and therefore are more likely to be judgmental, or a relatively smaller group is intrinsically motivated. Those with intrinsic motivation, he wrote, categorically displayed less prejudice, and it is this group that embodies the traditional tenets of most of the world's religions: kindness, compassion, love, and faith. Further, Allport and Ross theorized that people who are both prejudiced and religious may have developed a

particular cognitive style that shapes the lens through which they see the world. The same kind of cognitive inflexibility that brings people to believe that all religious affiliations are good can be applied to out-groups, such as racial or sexual minorities, that are categorically perceived to be bad.

Conceptualizing sexual prejudice. Irrespective of religious affiliations, the fact remains that there is a subset of society that adopts the view that LGB people are bad or wrong; this belief has been known as homophobia in the early years of LGB studies. Two U.S. psychologists, Kenneth Smith and George Weinberg, began using the term homophobia to refer to the feelings of discomfort that arose in heterosexual people when in the presence of gay or lesbian people (Clarke, et al., 2010). Although not usually a phobia in the traditional sense of fearing a given object, theorists argued that homophobia is more an elective opinion than a true fear. Fox (2009) stated that homophobia as a term is a misnomer since people do not fear homosexuals—instead, in his view, there is a distinctive cognitive style that leads to feelings of animosity, but it is separate from fear that would be typical of a phobia. This point of view conceptualizes homophobia as a social problem that is characterized by an inability to tolerate others' departure from the heterosexual majority. Herek (2000) observed that the problem with homophobia as a term is that it infers fear as the cause of disliking gays and lesbians; instead, there may be many other factors—family influence, political affiliation, religion, or personal sexual orientation or gender role confusion—that may contribute to a negative reaction toward LGB people. Therefore, Herek offered the term sexual prejudice as an alternative to homophobia.

Heterosexism. A closely related concept that pertains to a personal or sociocultural reaction toward same-sex orientations and behaviors is heterosexism. Heterosexism is akin to homophobia but may take different forms. According to an overview by Walls (2008), hostile heterosexism mimics homophobia in that it is a hostile institutional or sociocultural belief system that oppresses the identities or behaviors of LGB people. Although heterosexism typically refers more to the institutionalization of prejudice toward nonheterosexual people—usually best illustrated by assuming that being heterosexual is normal and any other orientation is unacknowledged—it can be enacted at the micro level too, carried out by smaller groups and individual people. Walls illustrated this point by defining an interpersonal attitude, paternalistic heterosexism, as an initially neutral stance toward LGB people that undermines them in subtle ways. Examples of this include people who may claim to embrace this group while denying their inclusion in social or institutional groups, or voting against gay marriage. Passively, paternalistic heterosexism involves an unspoken favoring of heterosexuality as the norm, or gold standard, which still effectively discriminates against LGB people. Further, Walls described apathetic heterosexism, or the idea that the LGB civil rights struggle is not striving for equality but instead is special interest group for a subset of the population. Finally, Walls defined positive stereotypic heterosexism as the kind of oppression occurring when heterosexuals apply stereotypes to LGB people that may limit their gender role expression or work against them from a social perspective. This is illustrated when individuals force traditional male–female dichotomies on same-sex relationships, attributing male attributes to one partner and female attributes to the other. It is clear

from these varied and nuanced definitions that heterosexism is problematic on many levels, and that the commonality between definitions is that heterosexuality is assumed to be normal, natural, and—because of its seeming ubiquity—good.

Biphobia and sexual prejudice. Separate and distinct from the notions of homophobia and heterosexism is the concept of biphobia. As described by Clarke, Ellis, Peel, and Riggs (2010), biphobia is a relatively new term in the study of LGB psychology. It refers to discriminatory attitudes held against bisexual people. Clarke and colleagues posited several correlates of biphobia, including the notion that bisexuals are really gay men or lesbians who are, for whatever reason, unable to come out. Obradors-Campos (2011) hypothesized that unlike heterosexual and homosexual identities, a bisexual identity is experienced by many people as inherently confusing; by definition, bisexuality does not fit neatly into an either–or dichotomy of mononormativity, creating a sense of uneasiness, or at very least, questioning, on the part of people who are confronted with this identity. He further hypothesized that biphobia resembles homophobia, but is more than a simple adaptation to the bisexual community. He argued that biphobia not only encompasses bisexual people's experiences of discrimination—largely institutionalized and pertaining to lack of rights—but also includes oppression. This oppression could include exploitation and marginalization; in fact, the gay and lesbian community is noted as one of the contributing social groups that marginalizes bisexuals. Obradors-Campos observed that there are gender-specific terms for homosexuals, which gives them twice as much representation in the LGB community, whereas bisexuals are not acknowledged separately by gender. These attitudes are

difficult for bisexuals to navigate, individually and as a community; additionally, they isolate the bisexual experience from the LGB community as a whole to some degree because of the different life experiences between the groups. Other researchers noted that just as homophobia is not truly a phobia but more of a cognitive construct, it is possibly more accurate to speak of binegativity instead of biphobia, and the oppressive forces found in the gay and lesbian community against bisexuals further support use of that terminology (Yost & Thomas, 2012).

Researchers are exploring the ways in which bisexuality—or, more broadly, nonnormative sexual behaviors—provoke discriminatory attitudes among others, and this research into sexual prejudice has far-reaching implications for individuals, behaviors, and relationships beyond the orientation-based LGB communities. Simula (2012) discussed the intersection of gender and sexuality by exploring the attitudes of people in the BDSM community. She defined BDSM as the "umbrella term that stands for bondage/discipline, dominance/submission, slave/master, and sadomasochism" community (Simula, 2012). She noted that gender is sometimes secondary to a person's preference for a sexual role or act. An example of this might be a female who is sexually active with anyone who is considered a *top* or dominant, regardless of gender. This type of behavioral bisexuality is secondary to the importance of the type of relationship desired by the participants, and although some in the BDSM community limit their activities to members of one gender, others do not. Of the participants involved in Simula's study, many reported that the BDSM experience transcends gender by doing gender differently. In other words, relying on highly stereotyped roles, such as a

dominant male and submissive female, has less to do with gender in that community than the behavioral attributes typically ascribed to those gender roles. This type of behavioral bisexuality adds a layer of richness to the concept of sexual orientation by separating it from sexual behavior.

Stressors Affecting the LGB Community

Although the overarching themes of homophobia and heterosexism clearly apply to LGB people collectively, the ways in which these social beliefs affect LGB people on an individual level can vary. The existence of homophobia, heterosexism, binegativity, and sexual prejudice in Western culture creates, at a minimum, a harsh environment in which to come out as a sexual minority; and, once out, LGB people face ongoing challenges in a world where discrimination and bigotry may be encountered on a regular basis. Throughout the course of one's life, an average LGB person may encounter oppression or discrimination from individuals, institutions, or even from attitudes towards oneself. The effect of these types of discriminations can be devastating, not only psychologically, but physically as well.

Institutional stressors. The current sociopolitical climate found in Western nations like the United States is in a state of flux, and attitudes toward LGB people are changing for the better as a result of widespread social reform; however, homophobia and heterosexism are still very prevalent in many common institutions that have the power to affect lives at the individual level. Institutional homophobia and heterosexism exist everywhere. Pharr (1997) argued that heterosexism is, in actuality, an institutionalized form of homophobia. She observed that the reality of homophobia is closely linked to

sexism. According to Pharr, economic factors are intimately linked to sexism, which perpetuates homophobia. Women earn less for working the same jobs as men, and men have benefitted from women who forego careers to maintain homes, even though this places women in an objectively dependent and (arguably) subservient role. Gender roles—the expected behavioral and attributional components of what it means to be a man or woman—are intimately linked to the perpetuation of sexism and homophobia as well. LGB people violate expected gender roles by not conforming to social beliefs about how men and women should look, act, and partner with others. Many institutions are built upon these central tenets, and it is for these reasons that some analysts regard heterosexuality as "compulsory" in nature (Rich, 1993). Rich's famous argument is that heterosexuality is, quite literally, the default orientation to which all people are assigned until they state otherwise, and this reality has been perpetuated by many social institutions and laws. Heterosexual relationships are the basis for many time-honored institutions in society to remain stable, and in this way, LGB people and relationships are deemed to be threats to the status quo.

The evidence of homophobia and heterosexism in Western institutions is widespread. In a panel discussion hosted by the American Psychoanalytic Association (Hoffman et al., 2000), representatives from the institutions of politics, psychoanalysis, religion, and psychology offered their experiences of discrimination in their respective fields. The panelists documented important facts about the reality of homophobia in the United States: namely, that homophobia is truly the last civil rights frontier, because it is the last category of minority status that is not universally protected by the law. Denying

LGB people jobs, housing, marriage, adoption, and legal recourse when discrimination occurs is still permissible today. In comparison, U.S. laws protect its citizens on the basis of their sex, race, religion and disability, but sexual orientation is not universally accepted as a category to be protected. Some groups, such as the conservative nongovernmental organization called the Family Research Council, actively produce and disseminate texts proscribing homosexuality as a threat to America's core ideals that must be actively suppressed and counteracted with targeted legislation (Peterson, 2011).

Although individual states are slowly beginning to pass same-sex marriage legislation, there is a vocal political backlash. Equality-minded organizations such as the Human Rights Campaign (HRC, 2011, para. 1) and the National Gay and Lesbian Task Force (NGLTF, n.d., para. 1) organize political responses to homophobic legislation and work to bring civil rights to LGB people. Groups such as these are necessary to counter the institutionalized homophobia present throughout the country, and indeed, throughout the world.

Interpersonal stressors. It is not surprising that, given the pervasiveness of institutionalized homophobia and heterosexism, these anti-gay attitudes regularly manifest in interpersonal relationships. LGB people face discrimination not only on an organizational level, but on a very personal level as well; in fact, the discriminatory attitudes held by organizations are routinely perpetuated at the micro, or person-to-person, level. In a study using participants of various backgrounds recruited from a community shopping centers, Walch, Orlosky, Sinkkanen and Stevens (2010) found that certain traits correlated more frequently with higher levels of homophobia; namely, that

as age increases, so do homophobic beliefs, and as education increases, homophobia tends to decrease. Their collective results revealed that males, Baptists, and Republicans exhibited higher homophobia scores than their counterparts in the categories of sex, religion, and political affiliation. Further, if participants knew someone who identified as LGB, their homophobia scores were lower than those who did not. Other researchers have found that participants' adherence to traditional gender roles is a stronger predictor of homophobia on an individual level than race (Durell, Chiong, & Battle, 2007).

The attributes associated with homophobia professed by individuals, based upon this research data, indicate that people generally reflect the predominant views adopted at the institutional level. This fact seems to support the civil rights adage that the personal is political; there is a clearly a reciprocal relationship between the points of view espoused by individuals and the overarching views held by society. While researchers do believe that some mechanisms operating at the individual level, such as stereotyping, do influence homophobia (Brown & Groscup, 2009), the reality is that LGB people can expect to face difficult social interactions with people who fear or dislike sexual minorities, and these wounding encounters can begin at a very young age. Homophobic ideas take hold in the early developmental years, a fact explored by Plummer (2001). His qualitative research with an Australian sample of adult men revealed that children use disparaging terms like "faggot," or refer to negative things as "gay," before they understand that the terms are related to sexual orientation at all. Plummer's work revealed that children internalize negative beliefs about LGB people before they can determine whether these words apply to themselves, and that the negative connotation is

absorbed from social interactions with others. Homophobia, then, is interpersonally learned and interpersonally transmitted to new generations.

Internalized homophobia. It is a common occurrence to think of hateful attitudes toward LGB people coming from outside, nongay sources, but it is important to realize that LGB people themselves can self-hate because of their own sexual orientation—a situation known as *internalized homophobia* (Newcomb & Mustanski, 2010). LGB people are not raised in a vacuum devoid of social influence, but instead receive the same negative messages about sexual minorities from society, parents, teachers, and friends that heterosexual people receive. When people realize themselves to be lesbian, gay, bisexual, or if they are questioning their sexual identity, they can turn the negative social beliefs about same-sex attractions into disgust and hatred toward themselves (Herek, Gillis, & Cogan, 2009). Internalization of hateful attitudes toward LGB people, by LGB people, has been conceptualized as consistent with Allport's theory of victimization: that people who are targets of prejudice tend to respond in predictable patterns of either lashing out at their oppressors, or hating themselves, adopting attitudes of guilt and shame (Williamson, 2000).

Meyer (1995) published a foundational work on the subject of internalized homophobia, focusing on the chronic struggle LGB people undergo against the social stigma of being a sexual minority. Meyer's description of minority stress, which he conceptualized as the ongoing state of experiencing the prejudice associated with being any kind of social minority, was comprised of three central concepts. He believed that minority stress resulted from a combination of internalized homophobia; anticipated

rejection from being a stigmatized member of society; and the lived experiences of anti-gay prejudice. Data collected from his study of adult men recruited in the New York area supported his hypothesis that high levels of minority stress—as defined by the three contributing factors named above—predicted high levels of psychological distress. Herek, Gillis and Cogan (2009) shared similar views on the detrimental effects of LGB people agreeing with and internalizing society's negative evaluations of them; however, they believed this effect is better described as self-stigma. In their view, self-stigma is an outgrowth of sociocultural norms that LGB people evaluate and to which they apply an attitude of acceptance. Their data supported this idea and echoed the profile of heterosexual homophobes: men, political conservatives, and religious fundamental groups all produced high scores on their measures of self-stigma. Meyer (2013) recently utilized minority stress as the underlying concept explaining the clearly elevated incidences of mental disorders in LGB people, which he documented in a far-reaching meta-analysis of the community.

Internalized homophobia is debated as a theoretical construct, but its effects can clearly be seen in the LGB community. Herek (2004) discussed George Weinberg's original meaning of homophobia when he first published it in 1967, describing it as a state that could be held by anyone, regardless of their sexuality. To Herek, internalized homophobia is essentially the inner struggle that LGB people undergo when they are reconciling the difference between their personal, good self-view compared to the negative societal view that surrounds them. He theorized that internalized homophobia can also be expressed as feelings of guilt and shame associated with embodying some

stereotypical qualities attributed to LGB people, and perhaps even the desire to be heterosexual. Herek noted that in the best circumstances, internalized homophobia is worked through as part of gay and lesbian identity development; however, in some cases it may not resolve. To better understand why some individuals do not integrate their sexual orientation into their self-concept in a healthy way, it is necessary to understand the process of gay and lesbian identity development.

Gay, Lesbian, and Bisexual Identity Development

In many ways, the process of gay and lesbian identity development is not unlike the lifelong work all people undergo in discovering who they are and what their identity is, and perhaps what it might become over time; however, for LGB people, the development of a minority sexual identity status marks a separation from the assumed norm of heterosexuality. In most cultures this implies an inherent struggle, because same-sex attraction and sexual identity is devalued and dehumanized as evidenced by homophobia and heterosexism in society (Reynolds & Hanjorgiris, 2000). Because the process of gay, lesbian, or bisexual identity development necessarily involves departing from sociocultural norms, it can be a painful process for many people. Researchers have worked to discover the process through which LGB people develop their identities, and several theories are offered in the current body of literature.

Perhaps the most well-known and researched model is Cass' model of gay and lesbian identity development (Cass, 1979). Cass offered a six-stage theoretical model with distinct developmental phases that gay and lesbian people experience as they realize their sexual identity, a process more commonly known as coming out. She

acknowledged in the model that each person will experience the identity development process differently; further, at any stage, development can come to a halt, which she termed identity foreclosure. To experience identity foreclosure at any point is to halt the integration of LG status fully into one's self-concept. Ultimately, the model predicts that the desire for one's life to be congruent on all levels—the self-concept, the behaviors, and the relationships with others in the world—is what propels one's actions during identity development.

In the first stage, identity confusion, a person begins to understand that gayness or lesbianism has some personal relevance to his or her own life. It may be that LG information from the media becomes important because it matches a person's thoughts or behaviors, but at this stage the person comes to realize that gayness is relevant. This may spark the question of whether one is gay. This is at odds with the previous belief that one is heterosexual, which produces a state of cognitive dissonance, or two conflicting ideas that moves the person into stage two: identity comparison (Cass, 1979). In identity comparison, the person begins to deal with a gay identity in the social realm. The hallmark of this stage is a realization of differentness and a sense of alienation. A person in the identity comparison stage has mostly reconciled the self-image with the same-sex thoughts and behaviors, but in this stage, the primary source of conflict is between this new, tentative self-image and what others think. For some people, the influence of others is minimal; they realize that they have always been different, and so the reactions of others matters little. However, in other instances the concern about others' opinions is so great that the person seeks therapy to attempt to change his or her sexuality. He or she

may alternatively attempt to reject the inner feelings of same-sex attraction, which leaves him or her with a lifetime struggle with self-hatred. Cass noted that in these extreme instances of identity foreclosure, suicide may seem to be the only option. Whether or not a person accepts the developing gay or lesbian identity in this phase, he or she typically continues to "pass" as heterosexual to the outside world.

The third stage of Cass's (1979) identity formation model is identity tolerance. If the identity continues to develop to this point, the person has generally accepted the idea of an LG identity. With this acceptance comes an acknowledgement that he or she has emotional and sexual needs that are not being met in the heterosexual community. The person has also likely begun to distance himself or herself from the straight community, so feelings of alienation can be very strong. Driven by these feelings, the person realizes that it is necessary to seek out other gay and lesbian people and learn about the LG community. If the experience of interacting with other LG people is positive, identity development continues, but negative experiences in the gay and lesbian community can sometimes lead to identity foreclosure at this stage. By the end of this stage, positive contacts with the subculture of the gay community have provided role modeling and ways of understanding how to be a gay or lesbian person, even within a largely straight society. The person who has not gone into identity foreclosure now admits (at least internally) that he or she is gay or lesbian.

In stage four, identity acceptance, the person fully accepts his or her gay identity; however, he or she may continue to compartmentalize it by limiting contact with people who will not accept it, and in general, contacts within the LG community take on more

significance. Cass (1979) noted that the gay subculture plays a large role in stage four. The person may develop more meaningful relationships with other LG people in this phase. These friendships become a sustaining and validating force in the person's life. Cass observed that for some, identity development stops at this phase, but for those that remain troubled by the conflict between the gay identity and the disapproval of others in his or her life or environment, moving to stage five will occur. Stage five—identity pride—occurs when the person reacts negatively to the social disapproval of a gay or lesbian identity. In stage five, the person begins to identify with other LG people and the community very strongly, while simultaneously devaluing heterosexuals and the heterosexist aspects of society. This stage is nearly a complete reversal of earlier stages where an LG identity feels shameful. The person in stage five becomes an activist; he or she experiences anger at being treated differently from heterosexual people, and experiences a desire to work toward equality. The person at this point looks down upon straight people, viewing them as oppressors. He or she increasingly chooses to come out as gay or lesbian to others in his or her life. This serves an important function in that it reduces the internal conflicts that drove many of the prior developmental stages. When one's self-image, behaviors, and public image—the facet representing how he or she relates to others in the world—are all in agreement, internal conflict is reduced, and a healthier lifestyle emerges. In stage five the central conflict that remains is the dissatisfaction with heterosexuals who have become the out-group. In some instances, the person may realize that not all heterosexual people will devalue his or her LGB identity. Positive experiences coming out to family members, friends, coworkers and

other acquaintances may help this belief to develop. The final stage of identity development is identity synthesis, and it is in this stage that the LG individual can fully integrate his or her identity into the surrounding world. Both heterosexual and same-sex attracted individuals hold importance to the person in identity synthesis. Being LG is no longer the central defining factor in the person's life; rather, it takes its place as one facet of the totality of the person's existence. Internal and external sources of cognitive dissonance are resolved in this final stage.

Bisexual identity development. Although Cass' model (1979) marked an important step toward understanding gay and lesbian identity development, psychologists and sociologists have debated about and further refined their conceptualizations of bisexual identity development in recent years. As noted by Diamond (2006), the Cass model and others like it neglect important aspects of sexual identity, such as the inclusion of bisexuality, and the experience of ongoing, iterative development across the lifespan. In her 8 year longitudinal study of young women who identified as lesbian, bisexual, or chose to leave their identity unlabeled, many of the women reported changes in the gender of their sexual partners or a change in their sexual self-identities. Diamond provided data to support her idea that it is incorrect to assume that sexual identity development occurs in stages, and that at some point it is completed. Rather, the participants in her study reported having sexual contact with both men and women at times, and defined their sexual identity using more complex factors than attraction and behavior. Importantly, the study indicated that sexuality is fluid, and any identity theory must leave room for dynamic changes over time. The political nature of sexual identities

adds more complexity to the task of categorizing identity development as well; when people identify as primarily bisexual, or if they choose to adopt the less easily defined label of queer, it becomes more difficult to address the developmental process because the label itself defies a neat categorization (Burrill, 2009).

Perhaps by necessity, the tasks of bisexual identity development can be described as more complicated because of the inherent complications of navigating the unspoken rules of how to romantically engage with two genders. Hoang, Holloway and Mendoza (2011) noted that bisexual people lack the strong social supports that can be sought by the LG community and their straight counterparts that receive nearly universal role models and validation. The authors discussed the complex nature of a bisexual person's coming out process: becoming aware of, then experiencing, same- and different-sex attractions and relationships; acknowledging to oneself and others a bisexual identity; and an ongoing state of instability because of lack of a clearly engaged community. Compounding this is the invisibility that inevitably occurs when one is in a relationship with one person and therefore sexual orientation is assumed to match the relationship. They theorized that it may be more difficult for bisexual people to reach a state of identity integration similar to their LG counterparts, in part because of reluctance to adopt the label of bisexuality (Diamond, 2008).

Hoang, Holloway and Mendoza (2011) published research results consistent with the idea that behaviors are separate from identity synthesis. They found that in their participant sample of bisexual women, there was not a significant relationship between infidelity and the degree of bisexual identity congruence, which they operationally

defined as fully integrating a bisexual orientation into one's self-view. Further, they found that women who had been physically unfaithful to a partner showed significantly different scores on measures of internalized biphobia than participants who had never been unfaithful. These results are not entirely surprising when one considers how socially constructed views of bisexuals might contribute to self-fulfilling prophecies. For example, in at least one study, there were significant gender differences in how men and women perceive bisexual people. Women were likely to be equally accepting of male and female bisexuals, whereas men tended to negatively view male bisexuals—viewing them as truly gay—and they perceived female bisexuals as sexy and truly straight (Yost & Thomas, 2012). If women internalize the idea that their bisexuality is invalid as a sexual orientation, and that their bisexual behaviors make them more attractive to males, it is understandable that this could lead to problems in maintaining fidelity over time. The idea of bisexual identity development is complex, influenced heavily by social values and misperceptions from society as a whole and among bisexual people themselves.

Critiques of the stage models. Just as the Cass (1979) model has been critiqued for its narrow view on sexual identities, other researchers have critiqued its omission of the experiences of cultural minorities. Adams and Phillips (2009) discussed how the experiences of Native American two spirit LG members depart from the Cass model in important ways. For those coming from a tribal background that is accepting of people who are known as two spirit—which can refer to possessing qualities of both genders or to same-sex attraction—the Cass identity model is fundamentally different from their life

experiences. Native American cultures traditionally value their two spirit members and show respect for their identities; the Cass model, conversely, addresses the experiences usually true of Euro-Americans who are part of a heterosexist culture that devalues lesbians, gays and bisexuals. Similar cultural issues with Cass' model have been expressed by other authors, such as Gock (2001), who noted that the visibility and equality progress of Asian-Pacific Islanders in the U.S. has developed more slowly than other groups, such as African Americans. The slower rate of minority acceptance overall has impacted the minority-within-a-minority identity development for people not of European descent. Managing multiple minority identities can be challenging for individuals because, as various psychological identity theories will attest, identities are usually understood individually as opposed to in multilayered, inclusive ways. That is, for a person of color who is gay or lesbian, he or she may experience situations in which it is easier to identify with ethnic norms than LGB norms, and vice versa. Integration of multiple identities is not easily achieved in life, and this fact is reflected in the current literature (Fukuyama & Ferguson, 2000).

Despite their flaws, the Cass (1979) model and other stage models offer a framework for understanding what it means to work through and successfully acquire and integrate a personal identity as a sexual minority. Other well-known stage models, such as Troiden's (1979) work with gay men resulting in a four stage model, conceptualize the coming out process as a series of emotional and behavioral events that help a person to integrate a newly realized identity into his or her self-knowledge which is then shared with others. The benefits of stage models include providing researchers a paradigm

within which to study how LGB people assimilate their natural sexual and relational attractions into their lives in a broader context. Meaningful research based upon stage models has helped to shed light upon the hardships inherent in adopting a scorned minority status. For example, in a study by Halpin and Allen (2004), the researchers recruited a large participant pool of men for an Internet-based study examining the mental health attributes of gay men at various stages of the Cass (1979) model. Their data indicated that, on average, there was a 5 and a half year age difference between men in the first stage of identity confusion compared to men in the final stage of identity synthesis. This result showed support for the idea that LGB people may move through the stages in a linear fashion, with the progress made in each stage building upon the psychological work done in the prior stage. Additionally, Halpin and Allen's data revealed that men report better psychological health in the first stage and last stage of Cass' identity development model, with lower scores reported for the middle stages. Participants reported greater happiness, life satisfaction, and self-esteem concurrently with less loneliness in both the identity confusion and identity synthesis stages. The data revealed the classic, inverted bell-shaped curve, indicating that there may be a relationship between working through the LGB identity development process and mental health: Specifically, that the task of coming to terms with an LGB identity causes significant emotional distress.

Regardless of the identity development model used, psychologists and other mental health personnel have a responsibility to understand that the developmental task of coming out and embracing and integrating an LGB identity is associated with

significant mental health stressors. Some mental health practitioners have contended that to identify oneself as LGB is synonymous with trauma. If the experience of coming out is met with hostility or rejection, especially from significant people in one's life, the results can be emotionally devastating and long lasting (Gair, 2004). While describing her model of LG identity development, Cass (1979) restated that identity foreclosure can occur at any stage—or, essentially, the natural progression of a healthy sexual identity can be halted at any point. What this means from a psychological standpoint is that the person, facing incredible internal and societal pressure, chooses a path that denies a natural and inherent part of him or herself. Whether it is early in the process, such as denying same-sex attractions during identity confusion and becoming an anti-gay activist, or later in the process, such as renouncing any disapproving heterosexual friends or family members who threaten one's gay identity, something of value is lost in the person's life. Relationships and self-concept suffer.

Therapeutic Needs of the LGB Community

Given the often hostile sociopolitical climate; the difficulties associated with forming and integrating an identity as a sexual minority; the organizational and interpersonal forms of oppression and discrimination; the challenges associated with the task of managing a healthy, balanced life despite these oppositional forces; and for some, the management of multiple minority identities, it is not surprising that LGB people have unique needs when they present for therapy. The cumulative toll of dealing with what Swim, Pearson and Johnston (2007) termed everyday heterosexist hassles was significant in their study participants; in fact, the fear of having to deal with heterosexist comments

was nearly constantly present in their LGB sample, whereas fear was not a component for people who experienced racially discriminatory comments. This fear is unfortunately not unfounded. Participants in another study provided examples of their own experiences receiving sexual orientation related microaggressions from their treatment providers in therapy (Shelton & Delgado-Romero, 2011). *Microaggressions* are subtle and often unintentional statements or actions that display antagonistic views towards members of minority groups, and their cumulative effects on minority group members can be substantial. The fact that anyone—even one's therapist—can reveal underlying homophobia in the form of microaggressions speaks to how universal the problem of homophobia is.

The list of psychological issues for which LGB people seek treatment is disturbingly long—because, in addition to experiencing mental health issues found in the general population, the added toll of minority stress raises the risk of these issues, and being a sexual minority creates unique issues for therapy providers to face. Pachankis and Goldfried (2004) listed some of the issues that may become presenting concerns for an LGB client in therapy. In addition to identity integration or coming out, they noted that couples counseling or relationship issues—whether in the context of being in a same-sex relationship or a heterosexual relationship that is ending—are common. This is not surprising given that LGB couples lack the widespread social support network in society that is afforded to heterosexual couples, and as such, their relationships become that much more fragile when they are marginalized or need to be defended from others' hostility. Other issues might include parenting children from prior heterosexual

relationships, or planning parenthood as a gay or lesbian individual or partner. Issues of substance use and abuse are also common to the LGB community, with gay men reporting more intense issues with substances than lesbians; yet, compared to the general population, this clinical trend has not been given the attention it deserves in the literature (Gillespie & Blackwell, 2009). A recent literature review indicated that substance abuse in the LGB community continues to be a significant problem. Bisexuals are most at risk of drug abuse, with lesbians more likely to abuse alcohol and drugs, and gay men reporting higher rates of abusing illegal drugs (Green & Feinstein, 2011). Clearly, there is a need for effective therapy to treat LGB individuals and couples.

It is a fact that LGB people report more incidences of mental illness and suicide attempts than the general population (Bolton & Sareen, 2011; Bostwick, Boyd, Hughes, West, & McCabe, 2014; King, et al., 2008; Meyer, 2013; Meyer et al., 2008). There seems to be some variability within the gay community regarding the distribution of psychological problems according to ethnicity, age, and gender, although data on the subject do not support a universal conclusion. Meyer, Dietrich and Schwartz (2008) reported that among their participant pool, White LGB participants experienced greater rates of mental illness than ethnic minority groups, but Black and Latino LGB participants reported more serious suicide attempts than Whites. Younger LGB participants showed fewer psychological disorders when compared to their older LGB peers in their study. One meta-analysis revealed that LGB people are doubly at risk of suicide, and are one and a half times more likely to develop mental disorders and substance abuse issues than their heterosexual counterparts (King et al., 2008). A

Canadian study with a large sample indicated higher rates of all mental health disorders in LGB people compared to heterosexuals, and a suicide risk that exceeded heterosexuals' data even after controlling for higher rates of mental illness; in particular, bisexual men and women were at the highest risk for suicide (Bolton & Sareen, 2011). Taken together, these studies indicate that there is a clear difference between the life course outcomes of LGB people when compared to heterosexuals in the area of mental health, and that these differences are potentially fatal.

Although much of the psychological threat to LGB people may come from within following from the effects of internalized homophobia (Newcomb & Mustanski, 2010), the existence of external threats such as hate crimes also contribute to the substantial mental health risks with which this population must cope. Rivers, McPherson and Hughes (2010) found that 79.4% of their participant group of LGB people had either directly experienced hate crimes or had at some time in their lives been fearful of an attack. Their study results indicated that willingness to seek therapy and social support played important roles in buffering against trauma associated with being attacked. However, the effects of hate crimes have been identified as remaining fairly constant years after attacks occur in at least one study. Herek, Gillis and Cogan (1999) found that LGB participants who had experienced crimes related to their sexual orientation were more likely to be concerned about future attacks; further, they displayed lower levels of psychological well-being, and were likely to attribute misfortunes in other areas of their lives to their sexual orientation. The overall experience of surviving a hate crime, according to this research, produces a unique subset of the population with specific needs

in therapy—namely, the need to reduce a sense of powerlessness, and to regain a feeling of safety and control.

What is possibly the most disturbing fact about higher incidences of psychological maladjustment among LGB people is that youths are especially vulnerable. Research data support the idea that young LGB people are at high risk for self harm, suicide, and substance abuse, possibly because they tend to face issues with homophobia alone and lack the coping skills necessary to handle the pressure (McDermott, Roen, & Scourfield, 2008). Developmentally, the mental health issues can occur at a young age, typically during adolescence when matters of sexuality become salient. The challenges faced by young people in a homophobic society leave them at risk of psychological harm that can go untreated (Rosario, Schrimshaw, & Hunter, 2011). Issues of gay- and lesbian-themed bullying has grabbed the attention of researchers (Espelage & Swearer, 2008) and the media alike, with the "It Gets Better" campaign targeting young LGB people who are at risk of suicide (IGBP, 2011). The sad reality is that some LGB children, teenagers, and young adults believe their future lives as members of the gay community to be so hopeless, suicide seems to be a better option. It is a mental health crisis in the truest sense.

Psychotherapists and other mental health providers are therefore faced with the challenge of understanding the unique constellation of concerns that LGB clients face, and responding with appropriate interventions that adequately address those issues. Internalized homophobia results in poor mental health outcomes for LGB people, and, as such, is a topic of concern for mental health providers. Research has indicated that in

LGB people who are already at psychological risk, such as those who suffered physical abuse during childhood, poorer outcomes with depression and posttraumatic stress disorder can be expected when they express internalized homophobia (Gold, Feinstein, Skidmore, & Marx, 2011). Similarly, internalized homophobia has been linked with relationship difficulties in LGB relationships, which calls for the therapist to understand how internalized homophobia operates on the individual level in order to help ameliorate it (Frost & Meyer, 2009).

Therapists also need to be aware of how religious issues can complicate mental health for LGB people. As noted in the literature, therapists have their own religious beliefs which necessarily affect how they understand and relate to LGB issues; however, their task is to provide effective counseling, and to understand how religion may play a role in contributing to internalized homophobia, then choose whether they can provide therapeutic support in light of their own religious beliefs (Bowers, Minichiello, & Plummer, 2010). Harris, Cook, and Kashubeck-West (2008) found that LGB participants who could think critically about religious tenets by applying moral guidelines and interpreting scriptures less literally—an ability they termed "postconventional religious reasoning" (p. 208)—displayed lower levels of internalized homophobia compared to peers who displayed less of this attribute. Treatment providers should expect that in at least some LGB clients, acceptance of their sexual identity could be in conflict with their religious values, and that the psychic wounds inflicted by some religious institutions can be deep, possibly causing extreme anxiety and distress. Some researchers have expressed their belief that rejection by mainstream religious institutions—enacted by church leaders

and churchgoers alike—constitutes a trauma for the faithful LGB community, and that posttraumatic recovery can be compromised if counselors unknowingly contribute to the problem by allowing their own beliefs to influence the therapeutic relationship (Bowers et al., 2010).

Therapeutic Interventions for LGB People

In light of the mental health issues facing LGB clients, it is critical that therapists have at their disposal a toolkit of psychological interventions aimed at reducing sexual identity-related conflict; yet, to date, there is not a standardized type of gay affirmative therapy to offer this vulnerable population. It is clear in the literature that the need exists, but little in the way of an adequate therapeutic response is offered. Malley and Tasker (2007) undertook the important first step of asking the question directly to the LGB population—that is, the question of what they needed to see in therapy in order to meet therapeutic goals and feel understood. They noted that LGB people utilize therapy services at higher rates than heterosexuals, but that there is not a clear understanding of how to help this population. Their participants revealed that in addition to standard therapeutic components such as an accepting and respectful relationship with the therapist, the best therapy outcomes came from therapists who were willing and able to openly discuss issues pertaining to their sexuality. Relatedly, the worst experiences occurred when therapists would not accept the client's LGB sexual identity. These findings mirror the attitudes of therapists surveyed about treating LGB clients, too. Therapists with higher self-reported levels of homophobia according to a homophobia scale also reported lower levels of professional competence with treating LGB clients in

therapy (Henke, Carlson, & McGeorge, 2009). Therefore, there is reason to believe that the therapist's own psychological attributes, belief systems, and willingness to treat LGB people as clients will have an effect on the success of the therapy.

Fortunately, overarching sets of treatment principles are in place to protect the interests of LGB people and prevent therapists from doing further harm to this population. The American Psychological Association (2000) has issued a set of guidelines for working with LGB clients, and the guiding principle for clinicians to heed is essentially to do no harm. Psychologists are recommended to be aware of issues pertaining to the client's family of origin as well as his or her family of choice. The Association recommends that therapists undergo a process of self-evaluation to fully understand their own attitudes toward LGB sexuality in order to mitigate any potential negative impact on their clients; additionally, it is recommended that psychologists proactively seek out information about what it is like to live the LGB experience. This includes educating oneself about the stigma faced by people who are attracted to others of the same sex. Additionally, the guidelines include the recommendation that psychologists seek to understand LGB people as individuals, and to avoid adopting stereotypes by seeking to understand the differences that exist in different subgroups throughout the gay community such as age and ethnicity. The guidelines expressly state that any types of reparative or conversion therapies are ineffective and psychologically harmful.

With these guidelines in mind, what, then, is the recommended approach to treating LGB people? There is no clear answer emerging from the current body of

literature. When experts in providing therapeutic interventions with LGB clients were polled, they agreed that while providers need not be LGB themselves, some form of specialized training would be beneficial in providing these communities with adequate treatment. Yet, all of the experts agreed that they had not received such training. The authors speculated that lack of empirically-supported interventions may be a contributing factor in the higher incidences of mental health problems within the LGB communities (Rutherford, McIntyre, Daley, & Ross, 2012).

In order to effectively work with LGB people in therapy, training in specific therapeutic techniques is necessary, as is the therapist's felt sense of competence. Carlson, McGeorge and Toomey (2013), while developing their Affirmative Training Inventory to assess therapist competence in LGB treatment, found that therapists' felt sense of competence increased as their LGB-related training increased. Further, they found that when training programs adopted an LGB-affirmative position, students of those programs felt more knowledgeable and comfortable with providing effective therapy for this population.

There is some research available on the use of cognitive behavioral therapy (CBT) with LGB people, in particular with a focus on addressing internalized homophobia in depressed clients within group therapy (Ross, Doctor, Dimito, Kuehl, & Armstrong, 2008). CBT—specifically, rational emotive behavior therapy (REBT) and a related technique, eye movement desensitization and reprocessing (EMDR), were used with a small sample of four gay men who suffered from posttraumatic stress disorder resulting from homophobia, and the results showed promise (Carbone, 2008). Glassgold (2009)

presented a case study in which CBT was used to cognitively reframe a client's anxiety about coming out as a gay man. By acknowledging the difficulties that society's homophobia placed on her client, the therapist was able to assist him with understanding that showing his authentic identity despite his understandable anxiety was a necessary task. She helped him to identify perceived rejection about coming out, and then compared it to the favorable reactions he actually received when he came out to select people. Pachankis (2009) noted this successful application of CBT and suggested that, while controlled trials of therapy practices for LGB-specific issues are hopefully going to be forthcoming, it may be most helpful for clinicians to draw upon known evidence-based practices like CBT that treat specific presenting therapy issues, and apply those practices to LGB concerns as outlined in the literature. As of this writing, the widely-acclaimed CBT training programs offered by CBT founder Aaron Beck lacked specialized training in using CBT with LGB clients (Beck Institute, 2014).

Research has further supported the notion that there is an ethical obligation for therapists to positively embrace the identities of their LGB clients, and gay affirmative therapy strives to provide this type of therapeutic intervention. Langdridge (2007) articulated the mistrust present in some LGB people following therapies that are actively harmful to the population, such as reparative or conversion therapies (Ford, 2005). As Ford described from the viewpoint of a survivor-turned-psychologist, reparative therapy is a misguided attempt on the part of practitioners to change a person's sexuality from LGB to heterosexual, which leaves deep emotional scars. In contrast, Langdridge summarized the opposite approach as a way that clinicians can effectively treat their LGB

clients: gay affirmative therapy, or GAT. Langdridge suggested that there are varying degrees and applications of GAT that have been in practice for the past two decades, ranging from an ethical acceptance of LGB identities as valid, to actively supporting and embracing LGB people's expression of their identities. Clearly, expressing support for LGB people's identities is a core task in building the therapeutic alliance. However, as Langdridge observed, gay affirmative therapeutic interventions continue to lack specific techniques that are known to work with the population. Johnson (2012) echoed this concern, noting that not only does gay affirmative psychotherapy lack specified techniques for practitioners to incorporate, but it also lacks a standardized definition which would enable further empirical research to occur. He conceptualized it more as a type of cultural competence than a specific, teachable method that could be applied in therapy. Butler (2009) described a broader conceptual approach termed sexual and gender minority therapy, or SGMT, as a systemic way of appreciating sexual minority status in the context of broader therapeutic treatment. She suggested that this term is more inclusive and a better description than GAT, although the literature lacks empirical data on efficacy of SGMT.

Other research on best practices in treating LGB individuals has focused on specific subsets of these populations rather than the shared needs of sexual minorities. While this research has been informative, it has suggested implications for treatment that may not apply equally to men, women, or the unique needs of bisexuals. For example, it has been suggested that focusing on internalized homophobia may be helpful for gay and bisexual men who are victims of childhood emotional abuse, although a systematic

approach of how to do this has not been documented (James et al., 2012). Other research focuses on strategies for heterosexual counselors to utilize with LG clients and couples, although such studies are often propositional in nature and not evidence-based (McGeorge & Carlson, 2011). Interventions that are being researched in the literature, such as mechanisms to reduce internalized homophobia, are often targeted only to one gender, such as Lin and Israel's (2012) computer-delivered intervention study. Studies are increasingly more focused on intervening with LGB/sexual minority youths at risk of suicide (Diamond et al., 2011), although systematic study of interventions for LGB adults are not similarly researched. A meta-analysis of LGB research content (Hartwell, Serovich, Grafsky, & Kerr, 2012) observed a large increase in the number of published articles about LGB therapeutic needs and best training practices for competencies in treating LGB clients, although evidence-based interventions have been researched significantly less in the past 15 years. The literature is producing more evidence about the problems facing the LGB community than it is on how to address those problems.

While there is an identifiable gap in the research for effective treatments for LGB people, simultaneously, there is an increasing rise in both public consciousness and the academic community about the benefits of mindfulness and related practices. Blando (2009) offered the concept of utilizing Eastern—specifically, Buddhist—psychological principles in treating older LGB and transgender adults. More recently, Gayner and colleagues (2012) found that the mindfulness based stress reduction protocol was useful in boosting mood, lessening depression, and reducing treatment avoidance in HIV positive gay men. Based upon the successful application of mindfulness techniques with

gay men, the current research will address the utility of Buddhist psychology as a possible solution to the problem of missing treatments for those with a minority status sexual orientation. The expanding availability of research on utilizing Buddhist approaches to coping with psychological challenges supports the idea that Eastern philosophies have a place in the Western world; moreover, the emphasis on connectedness and rational, thought-based approaches that Buddhist practices incorporate appeal not only to scholar-practitioners in the field of psychology, but also to many people who may have suffered from involvement with traditional Western religions but wish to cultivate a sense of spirituality nonetheless.

Buddhist Psychology

When the term Buddhist psychology is used, generally it is used in a broad sense to include any types of therapy or any of the several schools of psychological thought that embrace concepts practiced in Buddhism. Buddhism itself is a system of beliefs and practices that originated over 2,500 years ago, spreading through present-day Asia. Wallace and Shapiro (2006) noted that while many consider it to be a religion, Buddhism does not involve the worship of any type of god; rather, its primary concern is placed on the causes and amelioration of suffering for all beings. There is a considerable amount of overlap between the beliefs espoused in various schools of Buddhism and central tenets of Western psychology, making the blending of Buddhist tradition and the practice of psychology a natural union.

Buddhist Beliefs

When Buddhism first took hold in Asia, it centered upon the life and teachings of the historical figure Siddhartha Gautama—also known as Shakyamuni—a prince who renounced his life of wealth to embrace a life of ascetic soul-searching (Kohn, 1993). Shakyamuni is said to have been the first living being to achieve enlightenment, or a pure state of knowledge and mental well-being; he was the first person who broke the cycle of samsara, which in Sanskrit means the never-ending cycle of life, death, and rebirth into states of suffering (Kohn, 1993). By becoming the first person to awake, he earned the title of the *Buddha*, or "enlightened one."

According to Kohn (1993), the religious practices common during Siddhartha Gautama's lifetime (estimated to be between 563 BCE and 483 BCE) commonly espoused beliefs in reincarnation, so departure from the cycle of death and rebirth marked a departure from the norm. The Buddha's followers during his life and following his death learned various techniques for living fulfilled lives, with the goal being to free oneself and others from suffering. The teachings of the Buddha, or sutras, passed from one generation to the next throughout Asia. As eras progressed and the teachings spread through the Eastern world, various schools or traditions of Buddhism became associated with the areas in which the teachings took hold.

Today, there are three major schools associated with Buddhism: Theravada, centered mainly in southeastern Asia; Mahayana, found in eastern Asia, India and Tibet; and Vajrayana, also found in India and Tibet (Wallace & Shapiro, 2006). Each school has a different emphasis on the path to enlightenment, or dharma, and while some

traditions and beliefs may vary between schools, the central concepts are very similar. There are different customs and languages associated with Buddhism, too, since it took on the attributes of the people who adopted its beliefs. Many terms that have become familiar in popular culture and in psychology are derived from texts written in Sanskrit or Pali; thus, the terminology used here may reflect one or both of those traditions. Of note to the present study, Kohn (1993) noted that Buddhism's entrance into the Western world can be traced to academic pursuits in the 1930s, and that interest spread to practitioners during the 1950s when Buddhist meditation masters moved to the West and took on students. By the 1970s, interest in subsets of Buddhist practice had flourished, as did Buddhist-influenced research.

The beliefs of Buddhists differ from most major religions not only because they are nontheistic, but also because they are not faith based. Thubden Chodron (2001) noted that a central tenet of Buddhism is to "control your own mind" (p. 13), and to do this, the Buddha encouraged his followers not to adopt his sutras on faith, but to put his teachings to the test and actively question them. Chodron likened Buddhism to science in that both are systems which rely on testing, logic, and reason. The spiritual leader of Buddhism, Tenzen Gyatso, also known as His Holiness the 14th Dalai Lama of Tibet or simply the Dalai Lama, has expressed that if scientific knowledge ever contradicts the teachings of Buddhism, Buddhism will change its teachings to coincide with those facts (Chodron). There are many sets of beliefs within the teachings of Buddhism, but as the Dalai Lama (2009) explained, there are Four Noble Truths set forth by the Buddha that simultaneously describe the nature of the human condition, and offer a prescription for it.

The Four Noble Truths of Buddhism are both simple and profound: There is suffering; there is a cause of suffering; suffering has an end; there is a path to end the suffering. As described by Teasdale and Chaskalson (2011), this first teaching attributed to Buddha is essentially a framework for understanding why life is painful at times, and how to best respond to that suffering. Ultimately, by cultivating what he calls the middle way—avoidance of extremes in belief and action—the Dalai Lama (2009) taught that suffering can be eliminated by recognizing and altering one's state of mind. Buddhism as a practice entails adopting some core beliefs to bring an end to suffering. It is not the beliefs themselves that are offer cessation from suffering, but rather the behavioral changes resulting from the beliefs that are believed to bring about happiness.

The Eightfold Path. Tung (2010) described the eightfold path as a set of Buddhist beliefs that comprise the path to the end of suffering, or the fourth noble truths. The eight precepts are: right view, seeing oneself and others clearly; right intention, or good motivation; right speech, choosing one's words carefully to avoid harming oneself and others; right action, avoiding behaviors that bring harm; right livelihood, making a living in an honest way; right effort, putting forth one's energies in a positive manner; right mindfulness, keeping aware of the present moment in one's thoughts and actions; and right concentration, or cultivating a steady state of mind. When taken together, these principles set forth a way to live that is moral and likely to alleviate the causes of suffering. By living a life in accordance with these ideas, one is more likely to ensure good karma. The concept of karma has been perverted somewhat in its translation to the Western world, but its true meaning has less to do with retribution and, according to

Tung, is better understood as natural consequences, or cause and effect. The Sanskrit meaning of *karma* is "deed" (Bercholz & Kohn, 1993, p. 318), which refers to the fact that one's current state has been determined by prior deeds, and that future states will also be decided by current deeds. The Dalai Lama (2009) noted that the most important part of one's actions are the intentions behind them—it is the imprint of the intention that is left behind in the form of karma. This concept, along with several others, underlies some of the foundational concepts in Buddhist practice.

Meditation and mindfulness. To speak of a Buddhist practice is to reference the actions most Buddhists undertake to strive toward an awakened, or enlightened, state of being, and the most elemental components of this practice are meditation and mindfulness. Buddhist practice, like meditation, is not a one-time commitment or act, but rather is a concerted and ongoing effort to live fully and consciously. Meditation is, at its core, an act of self-examination. It involves centering oneself in solitude and observing the comings and goings of thoughts within the mind without entertaining or elaborating upon them. It is the non-grasping of what is considered desirable, and the non-aversion toward what is considered undesirable, that is cultivated in meditation practice (Wallace & Shapiro, 2006). There are numerous other definitions of meditation, as well. Goenka (1993) discussed the act of *bhavana*, or meditation, as a systematic and dispassionate way of observing the self. Traditionally, meditation has been categorized into two general types that usually result in two respective outcomes: concentration, or the development of peace and calmness (*samatha* meditation), and wisdom, or insight (*vipassana* meditation) (Khong, 2009). Mindfulness is a concept related to meditation, but it is applied to the

activities of life. Kabat-Zinn (1991) defined mindfulness as a type of personal work involving the acceptance of each moment, in that moment, regardless of what the moment is like. To be mindful is the antithesis of being on autopilot. It is being fully aware in the present moment, which is the only reality anyone truly has. In the world of research and psychology, meditation is often used as an umbrella term that can encompass any activities that alter one's awareness on the path to learning more about oneself (Smalley & Winston, 2010). Smalley and Winston promote the use of MAPs, or meditation awareness practices, in their work with clients on a psychological level.

Impermanence and non-attachment. Practicing mindfulness and meditation naturally leads to an appreciation of other central concepts in Buddhist thought—impermanence and nonattachment. Suffering itself is viewed as an outgrowth of attachment, or clinging. When one is attached to something and he or she derives pleasure from an object, person, or thing, the object causing happiness is always subject to vanish. Nothing lasts forever, and this is the meaning of impermanence, or *annica*. Khong (2009) explained that while meditation can be likened to a tree, the adjunct ideas of impermanence and non-attachment (or *virago*) fill out the rest of the Buddha's teachings, or *dhamma* (also called *dharma*), which represents the forest in this metaphor. Thus, the larger truth is the path toward happiness and away from suffering, and meditation is a practice that can lead to that end. By meditating and allowing thoughts and physical sensations to arise and depart freely, meditators have an opportunity to observe the thoughts, but not engage with them; to feel discomfort, pleasure, or other sensations and let them pass; and then, over time, can extend the practice of observing

and letting go to both positive and negative events in their lives (Kabat-Zinn, 1991; Khong). Truly realizing the impermanence of all things, including the self, illustrates the importance of non-attachment. By not clinging to the experiences in our lives we create a reality that is marked by stability and consciousness.

Loving-kindness. The experience of Buddhist practice is not limited to benefiting the mental stability and happiness of just the self, but instead extends to the goal of benefiting all living beings. One of the most cherished ideals fostered by the 14th Dalai Lama (2009) is that of compassion, or *karuna*. He defined it as applying feelings of warmth and closeness to all people, friends and enemies alike. The application of compassion to people who are not kind or even neutral toward us is challenging, but it is what sets compassion apart from love and liking. Kraus and Sears (2008) noted that both compassion and loving-kindness, or *metta,* are two of the Four Immeasurables—the qualities that are accompanied by great success in a person's practice. Loving-kindness as described by Pema Chodron (1993) is closely related to acceptance. She noted that people and animals are alike in that they routinely seek out ways of living that reduce pain and increase pleasure; however, it becomes problematic when facing dissatisfaction in various areas of life, because avoidance is not a long-term coping mechanism. Loving-kindness, also known as *maitri* or *metta,* approaches any subject—especially difficulties like pain and loss—with curiosity and openness instead of aversion. Kraus and Sears noted that the schools of Buddhism named hatred as the far enemy of loving-kindness, and cruelty the far enemy of compassion. The other two of the Four Immeasurables

include joy, or *mudita*, and equanimity, or *upekkha*, with the far enemies of jealousy and anxiety.

While meditation and mindfulness can increase the Four Immeasurables when practiced regularly, a specific type of practice called *tonglen* focuses on the development of loving-kindness specifically. As described by Pema Chodron (2009), tonglen reinforces the interconnectedness between all living things by making that connectedness the object of meditation. To engage in tonglen, the practitioner who is stuck in an unpleasant state, such as pain, brings to mind his or her pain along with the pain of others, all while inhaling. Then, on the exhaling breath, the practitioner sends wishes and intentions of well-being and healing out to others who are in that state, wishing for healing for oneself and others simultaneously. The intent of tonglen is to take the focus away from one's own problems and brings about a greater appreciation for others—whether the practitioner is comfortable with others and their experiences or not. Practices such as tonglen expand and increase awareness, which in turn increases the ability to cope with unpleasant life events.

Recently, the utility of loving-kindness meditation similar to the practice undertaken in tonglen has become incorporated into psychological study and practice. Salzberg (2011) defined loving-kindness as an intentional emphasis on the connectedness of all living beings. No distinction is made between humans and animals; rather, loving-kindness extends well-wishes to oneself first, then to all sentient beings. The practice of loving-kindness does not, according to Salzberg, necessitate liking. Rather, it is the intentional practice of recognizing that all beings share commonalities, and in that respect

are interconnected with one another. Loving-kindness is now being systematically studied apart from mindfulness, as it is recognized as a distinctly different way of conceptualizing how one relates to others. A recent study suggests that a manualized, 14 session treatment protocol using loving-kindness practices could be adapted to the specific needs and beliefs of various ethnic minority groups, although sexual minorities were not addressed in the study (Hinton, Ojserkis, Jalal, Peou, & Hofmann, 2013). In general, loving-kindness meditation has been empirically supported as a way of building positive emotional experiences. In one instance, it was suggested that a daily practice of loving-kindness meditation increased emotional resilience which in turn bolstered one's ability to reach out to others for social support (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008).

The full scope of Buddhist beliefs and practices is beyond the scope of the current research, but the overview presented here provides a framework for understanding how Buddhism and psychology complement one another. It is crucial to note that Buddhism and psychology are, in fact, different things, and that it is counterproductive to merge the two disciplines entirely. As Chodron (2001) wisely advised, Buddhism has the end goal of helping people eliminate suffering in this life and any others that follow; psychology can only help illuminate problems in this life and attempt to understand and ease them to the extent possible. Hanh (1991) observed that too often in Western medicine, doctors attempt to remove from the body what is unpleasant or unwanted, and he included psychologists in this assessment. Buddhist principles are more content to allow unpleasant emotional and mental states to exist as objects for examination and learning,

while Western medicine often makes attempts to remove the pain and suffering at all costs. While Buddhists also seek to reduce suffering and increase happiness, the approach is more even-handed, and possibly more realistic. This trend in Western medicine to avoid learning from difficult life experiences is beginning to change for the better, however; an example can be seen in the work of Gehart and Pare (2008), who offered to the psychological community the very Buddhist idea of working with suffering from a stance of curiosity toward what it has to teach, and what message the suffering has in the greater context of a person's life. Still, the compatibility between Buddhist practice and psychological treatment is strong, and the benefits of incorporating Buddhist beliefs into psychology are real.

Relating Psychology and Buddhism

The relationship between psychology and Buddhism is a long-standing one that appears to be enjoying a renaissance after a long period of dormancy. As noted by respected psychology historian Eugene Taylor (2010), William James, credited as the father of American psychology, incorporated Buddhist ideas about the self and states of consciousness into his own psychological models just before the turn of the last century. Carl Jung made frequent references to Buddhism in his own body of work, with at least one scholar interpreting Jung's discussion of consciousness to be nearly synonymous with the Buddhist definition of mindfulness (Daniel, 2007). However, while Jung enthusiastically incorporated traditionally Buddhist concepts into his work, he occasionally changed the meaning of the concepts significantly. For example, in Buddhism a mandala is a sacred geometric design for meditation holding many

meanings, but Jung asserted that it represented a fully integrated personal consciousness. This is a stark contrast to Buddhism, which encourages practitioners to move beyond the idea of a self and instead cultivate the idea of no-self, or the idea of the self as part of a larger consciousness (Bercholz & Kohn, 1993; Kelly, 2008).

Today's merging of Buddhism and psychology frequently takes on the tenets of Buddhism without use of traditional Buddhist nomenclature, such as with mindfulness practices. Shapiro and Carlson (2009) discussed the many ways that mindfulness can be beneficial in the context of therapy, beginning with mindfulness on the part of the therapist. They conceptualized mindfulness as a grounding tool for the therapist, who may be prone to burnout if his or her relationship to others' intense emotions is not managed properly. In another study, the buffering effect of mindfulness practices against trainee counselors' stress was confirmed in a student population (Shapiro, Brown & Beigel, 2007). Mindfulness practices can focus on impermanence (Khong, 2009), compassion, or simply on the breath as a calming reassurance of one's existence (Kabat-Zinn, 1991), and this has become a frequently seen component of psychotherapy. Khong observed that therapists who intend to teach mindfulness practice to their psychotherapy clients should have practices of their own. To truly understand mindfulness, it is necessary to immerse and engage in it, and teachers of mindfulness can communicate this more clearly drawing upon their own mindfulness or meditation practices. Other ways of merging Buddhism and psychology have included Buddhist-informed psychology, which makes use of practice principles (impermanence, compassion, curious observation, etc.) without naming them for clients to expressly identify (Shapiro & Carlson).

Psychology has already successfully applied mindfulness practices in a variety of well-known, widely-practiced treatment modalities. Linehan's (1993) groundbreaking protocol for treating individuals with borderline personality disorder known as dialectical behavior therapy, or DBT, makes extensive use of mindfulness as a coping strategy when unwanted feelings or impulses arise. Linehan recommends that patients practice radical acceptance of unpleasant life circumstances in order to move beyond them. In her treatment protocol outlining the theoretical underpinnings of DBT, she credits her own practice of Zen Buddhism as a central component of her treatment. Similarly, acceptance and commitment therapy, or ACT, is a values based therapy developed by Hayes (Hayes, Strosahl, & Wilson, 1999). Hayes' treatment encourages therapists to challenge unhelpful thoughts by unsettling them with verbal plays-on-words, defusing identification with one's thought processes. Similar to Linehan's protocol, ACT encourages patients to accept life as it is and commit to behavioral change.

Khong (2006) presented another option for Buddhist therapy with clients: utilizing Buddhist principles found in the Eightfold Path in conjunction with therapy. Khong described the noteworthy gains made by several of her clients when she informed them directly of the various Buddhist tenets that applied to their presenting psychological issues. Namely, she worked with clients on not only mindful acceptance of their emotions and life situations, but on cultivating the ability to let go. The act of letting go can provide healing to clients that is akin to forgiveness, but differs in that it is solely an intrapersonal experience that has the ability to free the client from feelings of anger, fear, animosity, or other negative emotions that are clinically significant. Khong also

encouraged responsible action, which involved taking into account the motivations behind each action. This idea is linked to the ideas of right action and right speech; however, Khong noted that the use of "right" in this context is not the opposite of wrong, but instead, is the best choice for the person at a given point in time. By helping clients to contemplate the best course of action to take, sometimes through the use of Zen proverbs, they reported significant gains in understanding their own motivations.

Kornfield (2008) defined many concepts key to the linkage between Buddhism and psychology, regardless of what terminology is used with clients. Kornfield addressed the Buddhist concept of *sankharas,* or residual imprints of past experiences in a person's mind and body. He noted that every life experience leaves an indelible mark that shapes who people are, and although these marks are made in the mind and are sometimes reflected and remembered as body memories as well, many people are not conscious of the impact these memories have. Kornfield suggested that mindfulness practices offer the ability to uncover lost *sankharas* and bring the imprints of past experiences into consciousness. The benefits of becoming conscious of these imprints include the ability to cultivate self-understanding, and the opportunity to address the influence of the past on the present in therapy. Mindfulness is an essential skill that is the antithesis of living life on autopilot; and, by becoming mindful of one's patterns, thoughts, and behaviors, it becomes easier to adjust those elements that are contributing to suffering. Kornfield noted that pain is universal and unavoidable, but Buddhism offers the tools necessary to reduce suffering, which is how we react to pain.

Further, Kornfield (2008) offered a working definition of both classic Western psychology and Buddhist psychology using the familiar concepts of ego and mental health. In traditional Western psychology, the ego is a mostly theoretical concept that refers to one's core self which is composed of conscious and unconscious drives and regulatory processes. A whole and functional ego is associated with good mental health, whereas a volatile ego is often linked with poor mental health, and it is the latter that can bring people to seek therapy. The functional elements in Buddhist psychology are markedly different; ego is viewed as an outgrowth of seeing the world from a constant position of "I," "me," and "mine." Ego is not viewed positively in Buddhism. Rather, the goal of Buddhist practice—which is reflective of most Buddhist psychologies—is to reduce the narrow sense of self and cultivate an expanded view of the self as part of a much larger whole. The goal is to essentially destroy the ego and replace it with a self-in-relation, or more accurately, a "no-self" point of view (p. 67). Shedding the burdensome task of overidentification with one's ego states as synonymous with the self leaves an individual open to exploring connectedness with others and the surrounding world. Moving away from self-focus and realizing an identity as part of the larger whole is associated with greater freedom, compassion, and improved mental health.

Benefits of Meditation and Mindfulness Techniques

There is an explosion of research available on the utility of mindfulness and meditation techniques in the psychological literature, and in the broader medical field as a whole. While meditation and mindfulness are different—as shown by Kabat-Zinn (1991), whose mindfulness based stress reduction (MBSR) program incorporated both

practices—they are being used in a broad array of settings with promising results. Psychologically, mindfulness offers an array of promising applications. In particular, patients who struggle with anxiety can benefit greatly from learning how to practice mindfulness. One study claimed that after learning and practicing Buddhist mindfulness practices, several study participants either reduced or completely eliminated their use of anxiolytics because their habitual anxious responses to stressful situations had completely resolved (Rungreangkulkij & Wongtakee, 2008). Mindfulness based cognitive therapy (MBCT) as an intervention for adults who have past histories of depression has helped participants learn how to savor positive life experiences. This ability is theorized to be critical in preventing depressive relapses, and has the potential to be an important psychotherapy treatment (Geschwind, Peeters, Drukker, van Os, & Wichers, 2011). Further, in a study of children with attention deficit hyperactivity disorder (ADHD) and their parents, both children and adults who learned mindfulness skills reported lasting benefits from their experience in the study. This result is especially important in an age where ADHD is prevalent; additionally, relief from stress associated with parenting a child with ADHD is necessary to support effective parenting, and the mindfulness study did produce data supporting decreased parental stress levels (Oord, Bögels, & Peijnenburg, 2011).

The body of literature surrounding Kabat-Zinn's (1991) MBSR program alone is vast, and shows great promise for the field of mindfulness overall. The full eight week program as described by Kabat-Zinn typically includes meditation and mindfulness practices, body-scan imagery, one full-day retreat, and Hatha yoga, a generally non-

strenuous form of movement that emphasizes awareness of the body. The full MBSR program has shown numerous beneficial results to patients living with cancer (Matchim & Armer, 2007). It shows the potential to be advantageous in shorter applications, as well. In a study using healthy working adults, an abbreviated and simplified version of MBSR was given to an intervention group and compared to a group of waitlisted controls. Findings indicated that participants in the shortened MBSR group reported increased mindfulness, better sleep, and a lessened experience of workplace stress (Klatt, et al., 2009). In another study with HIV positive and at-risk youths in urban environments, young people who attended most of the offered MBSR sessions displayed better pain tolerance, less aggression, and improved school performance, although the results do need to be replicated using larger sample sizes (Sibinga et al., 2011). Studies using MBSR have reported improvements for many other groups of clinical interest to the medical and psychological communities, including improved depression and anxiety in breast cancer survivors (Lengacher et al., 2009); decreased psychological distress in older adults (Young & Baime, 2010); usefulness with people suffering from chronic pain (Praissman, 2008); and mindfulness-based techniques that improve the sympathetic nervous system (SNS) activation of adults with fibromyalgia (Lush et al., 2009). A decrease in SNS activity indicates a decrease in the body's physiological response to stress, which is consistent with other findings in the literature on mindfulness meditation.

The benefits of mindfulness meditation are not limited to psychological benefits such as recovering from psychopathology or stressors associated with daily living, but instead seem to extend to lasting changes in neurobiology as well. Kelly (2008) provided

a thorough summary of the many areas in which meditation and mindfulness seem to bring about changes in neurobiology and neurological functioning. The list is impressive: better blood flow to the brain becomes evident in meditators; response times on visual acuity tests improve following meditation training, leading researchers to believe that meditation can improve perception; and changes in activity between the two brain hemispheres become increasingly noticeable over time as well. Key structures involved in processing the stress response in the brain, such as the frontal lobes, anterior cingulate, and structures of the limbic system, all demonstrate improved blood flow following meditation (Wang et al., 2011). Amazingly, meditation actually changes the size of key brain structures involved in emotional processing too: the hippocampi and orbitofrontal cortices of participants in another study were larger than the nonmeditating control group (Luders, Toga, Lepore, & Gaser, 2009). It is reasonable to believe from this body of data—and countless other studies routinely being published—that the effects of mindfulness and meditation are not temporary, and are not limited to emotional benefits. Instead, the ability to induce calm, focused attention contributes to the brain's neuroplasticity. Researchers have found that people who tend to be more mindful at baseline were less emotionally responsive to both aversive and pleasurable visual stimuli at the neurological level, as measured by electrophysical activity of the brain (Brown, Goodman, & Inzlicht, 2013). It seems that at a neurobiological level, mindfulness attenuates a person's responses to life stressors and emotionally charged situations.

The physiological benefits of mindfulness and meditation are evidenced at a cellular level not only in the brain, but in other body systems too. In an important study

examining mindfulness and the immune system, Fang et al. (2010) found that MBSR participants without any known autoimmune diseases produced greater activity in their natural killer (NK) cells following participation in the MBSR group compared to controls. NK cells are critical in the body's organized response to infection and inflammation, and finding a way to bolster their presence in the body in a natural way could greatly improve the quality of life in people whose immune systems are compromised by various diseases. They also observed that in the participants who reported greater psychological functioning following their work in the MBSR group, there were lower levels of C-reactive protein, or CRP. CRP is an indicator of the body producing the inflammation response, and as such is used as a marker of autoimmune functioning. Thus, the medical benefits of mindfulness and meditation are illustrated at the cellular level.

While benefits of meditation and mindfulness are varied and far reaching, there are still unknown factors to discover. Smalley and Winston (2010) observed that mindfulness as a psychological construct possesses the qualities of both a lasting personality trait and a temporary psychological state. This fact complicates the scientific study of mindfulness; are the brain imaging studies capturing momentary changes in response to meditative stimuli, or are the profound differences preserved when the brain is at rest? Other questions are raised as well about how much sustained meditation is needed to achieve various types of neurological change. Smalley and Winston stated that improvements in sustained attention have been claimed in some research settings with just 20 minutes of meditation during five days of practice. It is known that neurological

changes occur in the parietal and frontal lobes of the brain after brief exposure to meditation on the breath in new meditators in a single study (Dickenson, Berkman, Arch, & Lieberman, 2013), so it is reasonable to believe that even short periods of meditation can have beneficial effects.

One of the more basic questions about meditation and mindfulness is precisely how these practices affect change in practitioners. Kornfield (2008) offered an explanation involving the Buddhist conceptualization of human experience. The totality of human life can be divided into three major categories of sense experiences, which include the five senses as well as emotional states; mental states that are neutral, unhealthy, or healthy; and sense consciousness, or the body's consciousness of the six sense experiences. Kornfield likened healthy states, such as those induced by meditation and mindfulness, to the healthy mental states that make up our conscious experience. Mental illness and distress stem from unhealthy mental states. In each instance, the body processes incoming sensory information, interprets it, and produces a mental state. Meditation and mindfulness effect change at the level of consciousness by changing the content of how we experience the world—what we think about, and how. Grabovac, Lau, and Willett (2011) offered a different interpretation of how mindfulness operates, although the content is similar to Kornfield's Buddhist account in some ways. The researchers theorized that mental illness or upsetting states of mind occur when an initial thought or sensory event enters a person's consciousness. This event brings about an evaluation that is positive, negative or neutral, and the chosen assessment brings about another thought. Thoughts continue to generate automatically in this way, a process the

authors term mental proliferation. Left uninterrupted, this chain reaction can lead to the subjective feeling of distress. The Buddhist psychological model proposed by Grabovac, Lau and Willett posits that initially, a meditation or mindfulness practice can disrupt this automatic thought triggering that people typically experience. Over time, meditation and mindfulness provide a person with insight into his or her habitual thought processes, and it is this insight that allows them to make a more conscious decision. Thoughts can be chosen flexibly, or, if automatic thoughts arise, they can be observed and allowed to pass away without rumination.

Summary: Deriving an LGB Buddhist Psychology

Buddhist psychology and the application of psychological principles are supported by empirical evidence as effective means of dealing with at least some psychological disorders; and, given the successes reported in the literature, it was the intent of this study to apply Buddhist psychological principles to the LGB population in a new way. Following the suggestion of Blando (2009), who first recommended working with LGB people using Buddhist approaches, this study was the first to apply mindfulness and meditation practices to the LGB community. LGB people as individuals are not strangers to Buddhist principles, however. Gay Buddhists have shared their experiences with creating *sanghas*, or spiritual communities of Buddhist practitioners, and have discussed their positive experiences with finding spirituality in an accepting spiritual tradition that is open to everyone, regardless of their sexual orientation (Leyland, 2000). Given the favorable reception to Buddhism as seen in various groups of LGB practitioners, and understanding the logically derived background from which Buddhist

psychological principles are drawn, it is reasonable to pair the LGB community's need for more effective psychological treatments with the Buddhist approach and its history of success in the current literature.

Building upon the concepts of compassion and loving-kindness, and utilizing the practices of mindfulness meditation and loving-kindness meditation, this study sought to explore whether Buddhist-derived psychological principles and activities could have a positive effect on the self-reported mental health, self-perception and world views of LGB people. The study utilized the transactional model of stress and coping presented by Lazarus and Folkman (1984) as its theoretical base. Their model states that people's ability to cope with stress depends upon their cognitive appraisal of stressful events. They theorized that outcomes improve when individuals sense that they have the ability to change the outcome; or, in psychological terms, that the locus of control lies within them, as opposed to the control residing in outside others. In the case of the LGB community and the myriad stressors they face while coming out and living in a homophobic world, nearly all the stressors are seemingly based in societal beliefs outside each person's individual control. Yet, in another sense, psychological health depends in a large part on a person's ability not to change the situation itself, but to develop healthy coping methods in response to various life events, then use them flexibly and appropriately. The Buddhist psychological practices are presented here as a learnable set of skills that can be used to help LGB people respond more effectively to the challenges they face, hopefully decreasing the occurrence of mental illness and its correlates. To date, application of Buddhist-derived principles has not been systematically studied with

LGB participants, and the current study fills this gap in the body of knowledge. In the following chapter, the research methods relating to the present study are explored.

Chapter 3: Research Method

Study Methodology

The purpose of this study was to evaluate whether, and to what extent, participation in Buddhist-derived practices would have an impact on the self-reported mental health, self-perception and world view of lesbian, gay and bisexual people. This chapter will define terms relevant to the present study while describing the research design and rationale for the chosen methodology. Threats to validity are explored, as are the attempts made to minimize them. Care is taken to describe the efforts made to conduct the study as ethically as possible, with the ultimate intention being to do no harm in the course of this research endeavor.

Research Design and Rationale

The research design used in this study is quantitative in nature, with identifiable independent and dependent variables. The independent variable is assignment to one of three groups, each of which had their own type of Internet-delivered stimulus materials. Participants were randomly assigned to either the control group, which was presented with non-directive, pleasant images; the mindfulness meditation group, which was presented with guided meditation focusing attention on one's breathing; or the loving-kindness meditation group, which was led through a tonglen-like loving-kindness meditation offering well-wishes to oneself and others. The dependent variables of interest are pre- and post-exposure scores on three brief Likert-style measures: the Emotional Symptom Checklist (Zauszniewski, et al., 2004), which measures self-reported symptoms consistent with depression, anxiety and agitation; the Remoralization Scale

(Vissers et al., 2010), which measures present state self-perception; and the Unjust World Views Scale (Lench, 2007), which measures attitudes toward other people and their life experiences.

The study utilized solely Internet-delivered recruitment, survey administration, and stimulus presentation; all contact with participants was internet based. There are multiple reasons for choosing a web-based study design. First, by using the Internet to reach participants there are no geographic restraints—anyone who met study criteria of being an adult who identifies as LGB could participate. This is an advantage over many traditional types of research that use convenience samples of students or participants who are readily accessible in the researcher's locale. Use of the Internet to present and record surveys and responses ensures consistency and eliminates researcher scoring errors; additionally, by using the Internet to present the various stimulus materials, delivery of the stimuli is consistent and not dependent on human performance which can introduce errors or inconsistencies. Because the present study is focused on LGB people, utilizing the internet helped to overcome the statistical minority status of these groups in that the participant pool became broader geographically, and easier to recruit through web-based means. LGB e-mail lists, social media sites, websites and web forums were all utilized to find and recruit potential participants. Further, the researcher's time and financial limitations would hinder any attempts to conduct personal interviews and stimulus presentation with sufficient numbers of LGB people. In-vivo procedures are impractical and, for this researcher, not currently possible, leaving the web-based methodology as the best choice.

The use of the Internet for conducting research with the LGB populations is not new; in fact, it is a popular method for accessing a potentially diverse participant pool with the benefit of providing participants with a comfortable amount of anonymity during the data collection phase. As related by Hartman (2011), it is possible to use the Internet to find even difficult to locate populations by way of snowball sampling; that is, searching in likely newsgroups and social sites for a target population, and after finding a few participants, building upon that success through networking and repetition of the search technique. Other researchers have used the Internet to successfully examine Buddhist practices (Wiist et al., 2010) and conduct surveys on sexual satisfaction in both same- and opposite-sex relationships (Holmberg, Blair, & Phillips, 2010). Based in part on these successes, the current study sought to combine online delivery of Buddhist-derived practices targeted to those who self-identify as sexual minorities.

Methodology

This study targeted LGB adults over the age of 18. Currently, there are no reliable estimates for the size of the target population. According to the United States' Healthy People 2020 health initiative, most surveys and documents do not inquire about sexual orientation, which makes even rough estimates of true population size difficult to obtain (US Department of Health and Human Services, 2014). Participants were asked to self-identify their sexual orientation, and if they identified as heterosexual, they would have been disqualified from inclusion in the study.

Participants were self-selected if they met the study's criteria; no attempts to screen potential participants were made to narrow the participant pool. The study was

advertised on a wide variety of social media sites, Internet lists, web forums and websites targeting the LGB community. All participants were required to certify that, by participating in the study, they were at least 18 years old, which ensured they were able to freely give consent to participate. Verification of age was not attempted in this study largely due to inherent difficulties in verifying documents from the targeted sample size. Similarly, verification of sexual orientation was not possible. No compensation was provided for participation in this study, and this may have further limited the number of participants who met criteria and were willing to engage in the study through completion. Therefore, participants were self-selected without intervention on the part of the researcher.

A predetermined target sample size for each of the three participant groups was determined via power analysis utilizing the G*Power software package (Buchner, 2009). A similarly constructed study was utilized as a model for determining sufficiently sensitive values to use when conducting the power analysis. A study by Johnston, Titov, Andrews, Spence and Dear (2011) was similar in design to the present study. Johnston and colleagues utilized an Internet-delivered cognitive behavioral treatment methodology with three groups (waitlist control, clinician assisted or computer coach assisted) to determine whether changes occurred in anxiety levels as a result of treatment. They utilized a predetermined alpha level of .05; a statistical power level of .80; and an effect size of 0.6. These figures produced a targeted sample size of 36. The researchers cited several studies utilizing these norms. In light of the similarity between their study and the design utilized in the present study, the same alpha level, statistical power and effect

size were used. An analysis conducted in the G*Power power analysis software yielded a total sample size of 30. To allow for attrition, complications with study data, or missing data, each sample was increased by 10%. Therefore, the target sample size for each group was set at 33.

Participants were recruited via postings made on social media websites, online communities, e-mail lists and other online magazines and websites of interest targeting the LGB community. The study was advertised by asking potential participants to devote 10 to 15 minutes of time to participate in a research study about LGB needs. The advertisements provided a hyperlink to the study. The initial webpage all potential participants were shown was an explanation that the study was being conducted as part of a doctoral dissertation study focusing on the needs of the LGB community, and that while there was no incentive given for participation, the time investment contributed to expanding the knowledge base about how to help LGB people. A statement about the review and approval given by Walden University's Institutional Review Board was included, as well as an option to discontinue participation in the study at any time without penalty. As there are no known risks associated with the study, this fact was included as well. A statement was included indicating that participation necessitated being able to hear audio on the participant's computer, and a recommendation was made to continue to the study once located in a relatively quiet location. This statement was included to make potential participants aware of the need to hear the stimulus materials, and allowed an option to escape from the study if a participant was unable to hear the materials presented. If visitors to the webpage chose to continue, they clicked a button to proceed

to the study with the understanding that they were voluntarily choosing to continue and were providing informed consent.

The study was presented on the Internet using services provided by PsychData, a secure, online survey administration and data collection website intended for research use in the social sciences. PsychData allows researchers the flexibility to combine several surveys into one sitting; randomly assign participants to various stimulus conditions; collect data securely; and monitor progress of the study for the duration of the data collection phase. PsychData collected all data needed for execution of the study and presented stimulus materials as well. If participants chose to continue with the study, they were asked to provide the following demographic data: Biological sex; gender identity; sexual orientation; ethnicity; state or country of residence; and age. These criteria were necessary to ensure that participants met the study's criteria for age (18 and older) and sexual orientation (lesbian, gay or bisexual), as well as to report descriptive statistics on areas of the world and ethnicities represented in the study. Additional information collected included self-identification of any significant emotional or mental challenges experienced currently or in the past, with the options provided as follows: depression, anxiety, other emotional disorder (such as bipolar disorder or schizophrenia), cognitive disorder (such as memory impairment), or other. This information helped to inform how broadly any significant findings could be generalized, and allowed for analysis of whether the randomly assigned groups were equally weighted in terms of the presence or absence of these conditions. Additionally, participants were asked whether they currently utilized mindfulness practices in their lives. This was necessary to ensure

that prior experiences with mindfulness were not influencing the participant's results, as it was believed that prior regular practice of mindfulness techniques may reduce the pre- and post-exposure score changes, minimizing the difference between the two. Optional demographic data that participants could choose to include or omit included employment status, income level, and religious affiliation, if any. By including the optional demographic factors it was possible to perform retroactive analyses of whether the stimulus materials have variable impacts according to socioeconomic status, and whether identifying as a Buddhist had a confounding effect on the data collected.

Participants proceeded to the study itself after providing demographic data. The PsychData program was able to randomly assign participants to one of the three exposure conditions, allowing for the independent variable to be electronically managed. The materials provided in the study's exposure conditions was collected from publicly available materials, with instructions created by the researcher. All participants provided baseline answers on the three measurements used in the study. Following completion of the three measurements, participants were randomly assigned to the control condition, mindfulness meditation, or loving-kindness meditation groups where associated materials were presented. Following participation according to the on-screen instructions, participants again completed the three measurement scales. Once completed, participants were shown a screen thanking them for their time. The researcher's email address was provided as a point of contact for any questions relating to the study. The exit screen of the study provided an optional link to invite a friend to complete the study. No debriefing or follow-up was required past the end of the last survey.

The surveys utilized in the study are freely published in the public domain, and the creators of each measurement specified that their instruments may be utilized for research purposes without permission, as indicated in the citations provided here from the PsycTESTS database (Zauszniewski et al., 2004). The Emotional Symptoms Checklist or ESC (Zauszniewski, 2004) is an instrument originally developed to assess for the presence of 10 negative emotions that were categorized into three groups: traits of anxiety (anxiousness, nervousness, tension and worry), traits of agitation (anger, restlessness and irritability), and traits of depression (sadness, loneliness, and unhappiness). The authors noted that these symptoms were included because they are not specifically addressed in several other published scales. The authors published an internal consistency of .80; further, the instrument is believed to be reliable, as it is correlated with both the well-researched and validated measures, the State Anxiety Inventory and the Center for Epidemiological Studies Depression Scale, at the $p < .001$ level. The instrument was originally used with a population of elders whose emotional states were measured via pre- and post-test exposure, just as the current study does. The ESC is an appropriate measure to use in the current study because it provides a brief yet reliable method for assessing emotional states that are known to be correlated with anxiety and depression, two common mental disorders of interest in this study. The ESC scores were used to operationally define emotional distress as it is assessed throughout the study.

The Remoralization Scale is also available for non-commercial research use without seeking permission from the authors (Vissers et al., 2010), and is an appropriate

choice for this study because it was developed to assess for changes in a person's morale following therapeutic intervention. An analysis of the scale (Hutschemaekers, de Jong, van der Veld, Keijsers & Vissers, 2010) noted that it showed a test-retest reliability of $r = .89$, and an internal consistency of $\alpha = 0.91$. Further, the Remoralization Scale was found to be highly negatively correlated with established measures of anxiety and depression, and moderately negatively correlated with established measures of somatic symptoms and social dysfunction. Overall, the instrument's developers stated that its purpose was to measure change occurring within the individual; as such, it is appropriate to use in this study for purposes of detecting change in one's self-perception, and scores produced on this measure were used to operationally define self-perception within the present study.

The Unjust World Views Scale (Lench, 2007), also freely available for research use, is a brief measure intended to assess for how individuals perceive the world. As the name implies, the scale assesses the strength of a person's belief in the idea that the world is an unjust place. Lench and Chang (2007) observed that the psychometric properties of the Unjust World Views Scale were highly negatively correlated with two well-validated measures of just world views, with both correlations $p < .001$. Further, their scale possessed high content validity. It was found to be strongly positively correlated with traits of anxiety, symptoms of depression, and neuroticism in pilot studies. Lench and Chang's work to establish the reliability of their scale by examining its correlation with other published measures established its utility as a brief screening measure. Its focus on other people and the world in general makes it a good choice for the present study because it assesses for both world view, and, by association according to the scale's

development study, symptoms that are ultimately associated with negative mental health outcomes. Scores on this instrument were used to operationally define the term world view throughout this study.

The control group was directed to watch a series of images on the screen while being asked to relax, with exposure to the images lasting for four minutes. The images were depictions of peaceful, relaxing nature scenes. These images were collected from the Internet after ensuring that they are able to be used freely under a creative commons license. Images that were shown to the control group matched images that were shown to the mindfulness and loving-kindness groups, with the difference being that the control group was not asked to engage in any specific activity while the images were shown. The instruction to relax was framed as an invitation; "take this time to watch the images and relax." Using this non-directive approach invoked a state of relaxation which may be similar to states that occur in response to meditation practices, although no guidance was provided about techniques to use to either physically or psychologically disengage. By creating a space with similarly timed exposure to the same relaxing images, the control group was able to serve as a true control to determine whether the meditation practices bring about psychological change, effectively ruling out any benefits that come about from a few restful moments of non-activity as opposed to meditative thought.

The mindfulness meditation treatment condition consisted of a guided exercise focusing on maintaining mindfulness of one's breath while peaceful imagery was shown on the screen. Participants were instructed to "focus [their] attention on [their] breathing, feeling each inhale and exhale and noticing any physical sensations that arise during each

breath." Participants were then instructed to return to silently counting their breaths whenever their minds wandered to intrusive thoughts, plans, or memories, without judging themselves or thinking further about the intrusive thoughts. This exercise is designed to improve concentration and encourage present-moment awareness, as seen in Kabat-Zinn's (1991) mindfulness based stress reduction (MBSR) program. After instructions were shown, participants were asked to begin focusing on their breathing. The same nature images shown to the control group were shown to the mindfulness group for a period of four minutes.

The loving-kindness and compassion condition was based on the principles of loving-kindness found in formal Buddhist practice. Loving-kindness encompasses the practice of nonjudgmental acceptance of situations, thoughts, and other people; simply, it means offering acceptance and a positive feeling toward all things, whether they are emotionally laden or not (Kraus & Sears, 2008). The guided loving-kindness instructions directed participants to "think about sending kind wishes to yourself; to someone you like; and to someone you sometimes have difficulty liking." After this initial orientation to the task, participants were directed to begin sending the well-wishes by mentally repeating the phrases "may I be well; may [name of liked person] be well; may [name of disliked person] be well," thinking of oneself, the liked person, and the disliked person each time. The period of repetition lasted for four minutes while the same nature imagery shown to the control group and the mindfulness group were displayed on the screen. A similar loving-kindness technique has been used with a similar focus and script in prior research as well (Leppma, 2012), with meditators and research participants. A past study

utilized a loving-kindness practice just over four minutes long with nonclinical participants and found effects on social connectedness with even a brief exposure (Hutcherson, Seppala & Gross, 2008).

Data Analysis

Data analysis was conducted utilizing the IBM software package SPSS. The PsychData program enabled data to be easily extracted for data analysis in a variety of formats. Additionally, the program allowed for variables to be defined as the study was created online, which simplified the categorization of data and naming and coding of variables. Prior to analysis, the researcher screened data to ensure that all mandatory demographic data was provided by each participant. Participants who indicated their age was under 18, or who identified as heterosexual, had their data excluded from all analyses because they did not meet inclusion criteria. If participants failed to complete both the pre- and post-exposure surveys, their data were excluded from analyses as appropriate.

The first research question of interest was whether Buddhist-derived meditations can positively impact the mental health, social attitudes and world views of LGB people. To explore this question, the first hypothesis stated that differences between pre- and post-exposure combined scores on three measurements correlated with mental health and well-being would be greater in both the mindfulness and loving-kindness groups compared to the control group. The null hypothesis was that there would be no significant differences between the three groups. Data were analyzed for participants who completed three measures both before and after exposure to stimulus materials. Each participant generated an overall score on each of the three scales, resulting in three

numbers that were summed to arrive at an overall or combined score. Each participant produced a combined pre-exposure score and a combined post-exposure score, and it was the difference between the two that was calculated as the mean change score. To analyze whether differences existed among the three groups, the change scores were analyzed by a one way ANOVA with post hoc analyses.

The second research question explored whether engaging in mindfulness meditation practice could positively impact the emotional state of LGB participants. For purposes of this study, emotional state was measured by the Emotional Symptoms Checklist (ESC). The hypothesis was that mean change scores on the ESC were greater in the mindfulness meditation group than in the control and loving-kindness groups. The null hypothesis was that there would not be a significant difference between the three groups on pre- and post-exposure change scores. A one way ANOVA was conducted to compare the means of the three groups on pre- and post-exposure score changes on the ESC measurement, and associated post hoc analyses were to be conducted if a significant result was found.

The third research question explored whether loving-kindness meditative practice can impact the social attitudes and world views of LGB people by enhancing well-being with a sense of connectedness with others. To assess this, change scores on two measures—the Remoralization Scale and the Unjust World Views Scale—were summed to produce combined scores for each of the three groups. Pre- and post-exposure scores were computed for each participant, and the difference between the two were computed for both measurements and summed. The alternative hypothesis was that the loving-

kindness group would produce significantly greater change scores for both measurements when compared to the mindfulness and control groups. The null hypothesis stated there would not be a significant difference among the three groups when summed change scores were compared.

Threats to Validity

Potential threats to external validity in the present study were believed to be minimal, in part because of how the study was run. Standardization of delivery of the instruments and stimulus materials was assured because of the automated nature of a web-based study. However, because participants were self-selected and no validation of data could be accomplished in the anonymous online environment, potential threats did exist. Participants could potentially misrepresent any of their demographic data, including their age and sexual orientation. As these were the most crucial identifying characteristics needed for the study, any errors in reporting these figures could serve as threats to external validity. Further, because the study remained completely anonymous, there was no way to ensure that participants did not complete the study more than once. If individuals chose to complete the study again, the duplication of their data would be unknown, yet confounding, elements that would skew the data.

Potential threats to internal validity were believed to be equally low. Again, the computerized nature of the study standardized the way materials were presented and ensured a standardized method of data collection. However, because the study completely relied upon the online survey methodology, any errors in study design would be consistent throughout the entire sample and would affect all the data. Further, it was

possible that data collection could fail for technical reasons. Attempts were made to run the study in pilot mode prior to launching the survey for public participation in order to reduce the chances that data were incorrectly collected. Mechanical and technological errors were beyond the scope of the researcher's control, although none occurred.

In any study, threats to construct validity are a source of concern, but these threats can be minimized by thorough research prior to a study's design and implementation. In the case of the current study, efforts were made to thoroughly understand the variables of interest—those that relate to mental health and mental illness—as well as the population of interest. The three groups that comprised the independent variables—mindfulness, loving-kindness, and a control group—were chosen to best represent Buddhist-derived practices that could be utilized in therapy, as well as a valid way to ensure a neutral control group. Similarly, the selected instruments were chosen to best approximate the dependent variables of interest in a way that would be both quickly delivered and sensitive to change in a short period of time. The ESC, Remoralization Scale and Unjust World Views Scale were constructed to measure emotional states, self-perception and world view, and these variables are those that are believed to relate most directly to the presence or absence of mental disorders. While not diagnostic, these scales could provide useful data about participants' mental states without being invasive. Concerns about proper selection and computation of statistical analyses represented additional threats to study validity. The present study could be analyzed by alternative means, but the methods described here were believed to best answer the research questions.

Ethical Procedures

The nature of recruitment for the present study involved posting advertisements about the nature of the study published on websites of interest to the LGB community; as such, there were no formal permissions to be obtained, as participants were self-selected when they responded to the survey invitation. Prior to publishing the survey or collecting data, all steps were taken to ensure compliance with Walden University's Institutional Review Board (IRB) requirements. These requirements and permissions were necessary to ensure the safety and well-being of human participants throughout the course of research. IRB approval number 11-06-14-0046172 was obtained prior to proceeding with the study, and was listed on the study's consent page for participants to see.

An attempt to avoid ethical violations was made by analyzing potential ethical implications of the study, and any areas of concern have been addressed in the study's design. During the recruitment phase, it was made known to potential participants that there were no known risks or benefits associated with participation, and that there were no incentives offered for participating. This reduced the possibility that participants would be misled into participation under the expectation of gain. Prior to demographic data collection and participation in the study itself, a page was shown for participants to read about the purpose of the study—with enough ambiguity to avoid clear detection of the research questions—as well as a statement about the option to discontinue participation at any time without penalty. Participants were assured that their responses were assigned a number for identifying use in the study (for example, participant number 1), but otherwise were kept anonymous, and no personally-identifying information about

them or their electronic location (for example, IP address) would be collected. If, at any time, participants wanted to discontinue participation, the introduction and informed consent page advised them that they could opt to close their web browser, or contact the researcher with any concerns. Finally, participants were advised that while data would be collected throughout the study, it was limited to responses that they chose to give, and all data would be destroyed within six months of the study's completion. PsychData further ensured confidentiality of information stored within their survey system during the course of the data collection period.

Aside from methodological issues, there were no known risks associated with participating in the guided meditations utilized in this study. Throughout the literature review, no studies reported negative consequences for meditators practicing mindfulness or loving-kindness. While it was possible that participants could respond in a negative manner to the stimulus materials, the option to voluntarily discontinue participation at any time was present throughout the study. If participants had questions or felt any adverse effects as a result of participation, the researcher's name and e-mail address were provided at the end of the study for participants to contact if they desired to do so. A text box was included on the final screen of the study so that participants could leave comments for the researcher without having to send an e-mail if they preferred to leave feedback in an anonymous manner.

Summary

The present study sought to determine whether participation in mindfulness or loving-kindness meditation produced a significant change in LGB people's emotional

state, self-perception and worldview as compared to a nonmeditative control condition. The methodology utilized here was solely Internet-based, with recruitment and data collection occurring online. By publishing the availability and broad purpose of the study on websites that attracted LGB people, it was believed that adequate numbers of participants would participate in this brief study. While no compensation was provided for participation, participants had the option to discontinue participating at any time. Changes in the dependent variables were measured by pre- and post-stimulus exposure completion of the Emotional Symptoms Checklist, Remoralization Scale and Unjust World Views Scale. Means of the three groups were separately compared via use of one way ANOVAs. The null hypotheses—that there would be no differences between the three groups' score changes on any of the three instruments—would be rejected if $p <$ .05. This study had the potential to establish whether Buddhist-derived mindfulness practices can positively impact attributes associated with mental health, paving the way for future studies and, potentially, therapeutic techniques to utilize with the LGB community. In the following chapter, study outcomes will be discussed.

Chapter 4: Results

The aim of this study was to explore how two methods of mindfulness practice, mindfulness meditation and loving-kindness meditation, could potentially benefit the mental health, social attitudes and worldview of LGB people. Three research questions addressed these topics. The first question explored whether pre- and post-meditation score changes in the two mindfulness groups on three combined scales—the Emotional Symptoms Checklist, the Unjust World View Scale and the Remoralization Scale—were significantly different from the control group. The hypothesis was that there would be significant differences between the mindfulness group and the control group, as well as the loving-kindness group as compared to the control group. The second question explored the concept of emotional regulation via use of mindfulness meditation. The hypothesis was that the mindfulness meditation group would experience greater score changes on the Emotional Symptoms Checklist than the control group and the loving-kindness group. The third question examined whether loving-kindness meditation affected LGB participants' perception of themselves and others compared to mindfulness meditation or no meditation at all. The hypothesis was that the loving-kindness meditation group would show higher combined change scores on the Unjust World Views Scale and the Remoralization Scale when compared to the mindfulness and control groups.

This chapter explores the process of data collection in this study and describes outcomes for each of the three research questions. The data collection time frame, methodology, and participant recruitment strategy is discussed. Characteristics of the

recruited sample will be presented, along with analysis of its representativeness of the larger population. The experimental treatment conditions will be evaluated against the research plan, and descriptive statistics about the sample and the three randomly assigned groups will be presented. Statistical analysis methods of the final data will be explored, and results of the analyses will be discussed. This chapter closes with a summary that compares the study's outcome with the original research questions and hypotheses.

Data Collection

After the online study went live and was advertised to the LGB community, data collection occurred over the course of three weeks in December 2014. In total, 181 people participated in the study; however, of those participants, 51 failed to complete the study from start to finish, so their responses were omitted from the final data analysis. This was necessary because all participants needed to complete the three surveys twice in order to produce results that could be analyzed in a pre- and post- exposure comparison. While the number of participants who failed to complete the study was high, it was not unexpected since no compensation was being offered in exchange for participation. Allowing for attrition was part of the research plan to accommodate participants who may have preferred to discontinue their participation for personal reasons, as described in the informed consent.

Of the 130 remaining participants, two responded that they were not 18 years of age or older, and their responses were omitted as well. All participants identified as lesbian, gay, or bisexual, so no participants' data were excluded on the basis of being heterosexual. Therefore, the final data analysis was conducted using the 128 adult

participants who completed the study in its entirety. The original plan was to collect data on an ongoing basis until there were 30 participants were randomly assigned to each of the three groups. Due to attrition, two of the three experimental groups collected completed surveys from 30 participants much more quickly than the third group. The data collection process was allowed to proceed until all three groups had 30 participants; then, more responses were allowed to be collected so that the groups were closer to being evenly matched. At the end of data collection, there were 39 participants in the control group, 40 participants in the mindfulness meditation group, and 49 participants in the loving-kindness group.

Sample Demographics and Generalizability

Participants who completed the study comprised a diverse and representative sample of the LGB community, with significant numbers of transgendered individuals represented as well. Biological sex was accounted for separately from gender identity (see Table 1).

Table 1

Biological Sex, Gender Identity and Sexual Orientation of Study Participants

	N	%
Biological Male	56	43.8%
Biological Female	72	56.3%
	128	
Male Gender	48	37.5%
Female Gender	67	52.3%
Male to Female Gender	6	4.7%
Female to Male Gender	4	3.1%
Intersex Gender	3	2.4%
	128	
Gay	45	35.2%
Lesbian	44	34.4%
Bisexual	39	30.5%
	128	

The sample consisted of a nearly even number of biological males and females. Gender identity was reported as well; some participants identified as transgender male to female or female to male, while others simply identified as male or female, using the gender opposite their birth sex. Three participants identified as intersex. Sexual orientation was nearly evenly divided, with 35.2% (n = 45) identifying as gay, 34.4% identifying as lesbian (n = 44), and 30.5% (n = 39) identifying as bisexual. Thus, the study outcomes are believed to be based upon an adequately representative sample of the LGB community since the three groups of interest were distributed proportionally. There are no standardized norms of the known distribution of transgendered individuals in the general population, so generalization to the population is limited.

While accurate estimates of the percentage of LGB people within the population and their demographic attributes are not established, the sample assembled for this study provides more information about the nature of the LGB community in the context of an online environment. Ages of participants varied widely (Table 2).

Table 2

Age Ranges of Participants

	N	%
Age 18 to 24	30	23.4%
Age 25 to 34	34	26.6%
Age 35 to 44	20	15.6%
Age 45 to 54	31	24.2%
Age 55 to 64	9	7%
Age 65 to 74	4	3.1%

This broad span in age suggests that the sample is fairly representative of the experiences of adults in early to middle age, with less representation of adults age 55 and older. Possible reasons for this include reduced access to or interest in online media among older adults.

Geographically, the sample was primarily composed of participants within North America, although there was a small degree of international presence. More than 80% of the sample was taken from the United States, with 4.7% of the sample from Canada. Participants in the United Kingdom constituted 7.8% of the sample. Two participants were from South Korea, totaling just over 1% of the sample, and less than 1%, or one person, represented Australia, Germany, Mexico, New Zealand, and the Philippines.

Surprisingly, there was little diversity in ethnicity reported among participants, while socioeconomic status varied more. Participants identifying as Caucasian composed 79.7% of the sample while other ethnicities were only marginally present (Table 3).

Table 3

Ethnicity of Study Participants

	N	%
White/Caucasian	102	79.7%
Hispanic/Latino	5	3.9%
Black/African American	7	5.5%
Native American	1	0.8%
Asian/Pacific Islander	6	4.7%
Other	7	5.5%

The lack of diversity in ethnicity was surprising given the far-reaching capacity of the Internet, as well as the popularity of the social media platforms used to recruit participants. Employment status was more variable. Full-time employment was most heavily represented among participants at 51.6% while other statuses with student status the next most popular choice at nearly one third (Table 4).

Table 4

Employment Status of Study Participants

	N	%
Full Time	66	51.6%
Part Time	18	14.1%
Unemployed	21	16.4%
Student	38	29.6%

Participants could choose more than one employment category, and employed students often selected both designations. Income status was the most variable socioeconomic variable in the study; see Table 5.

Table 5

Income Ranges of Study Participants

	N	%
$10,000 - $25,000	47	36.7%
$25,001- $40,000	29	22.7%
$40,001 - $55,000	10	7.8%
$55,001 - $70,000	15	11.7%
$70,001 - $85,000	3	2.3%
$85,001 and above	15	11.7%
Decline to state	9	7%

It is possible that because students composed a significant part of the sample and there was heavy representation of unemployed participants as well, the lowest income range provided in the study accounted for over one third of the sample.

Religious practice was another element explored in the demographic data collection process. Participants were asked to select all religions they practiced as opposed to selecting one. This approach enabled multiple belief systems to be identified, such as practicing both Buddhist and Christian tenets. Participants' responses varied (Table 6).

Table 6

Religious Affiliation of Study Participants

	N	%
Jewish	7	5.5%
Christian	47	36.7%
Muslim	0	0%
Buddhist	5	3.9%
Hindu	2	1.6%
Other	46	35.9%
None/No response	21	16.4%

More than half of the sample—a full 52.3% -- either declined to state a religious affiliation, or identified their affiliation as "other." The low response rate to this item combined with the high percentage of participants who identified as some other type of religion supports the previously discussed concept that LGB people may be reluctant to affiliate with organized religion.

In order to analyze the interaction between mental health and meditation, participants were asked about their mental health history and meditation habits, if any. Data from the sample indicate that mental illness did, in fact, occur in significant levels in this LGB population, as shown in Table 7. Participants were given options to select one condition or none; this forced choice enabled data to reflect the primary concern of the participant.

Table 7

Mental Health Conditions in Study Participants

	N	%
Depressive disorder	26	20.3%
Anxiety disorder	39	30.5%
Other emotional disorder	9	7%
Cognitive disorder	1	0.8%
Other disorder not mentioned	4	3.1%
None of the above	49	38.3%

More than half of the sample indicated current or past history of depression or anxiety, which is substantial in comparison to the 38.3% of the sample that reported no history of mental health conditions. Much smaller percentages of other mental health conditions were reported as well with less than 15% of the sample reporting another emotional disorder such as bipolar disorder, schizophrenia or a personality disorder, a cognitive disorder such as memory impairment, or any other type of mental health disorder not listed. Analysis revealed that the three largest groups—depression, anxiety, and no mental health condition—were proportionately distributed across the three experimental groups in the study. Also important to the data analysis phase was understanding whether participants were current or past meditators. A full 18% identified as meditators. This identification, along with identification as Buddhist, were both controlled for in the final data analysis to reduce impact as confounding variables.

Determining norms for the LGB population at large is extremely difficult, and no established norms are available to use as a baseline for comparison. Sexual orientation is not a standard demographic variable collected in most national or regional census counts

or other studies, unless a study pertains directly to sexual orientation, as is the case in this study. Because no reliable baselines exist, it is not possible to determine the extent to which this study's sample does or does not generalize to the actual population of interest. However, the data collected here do provide insights into the characteristics of this web-based sample. While there was more variability in income and age, less diversity in ethnicity was shown. Interestingly, although no quotas or other types of participant screening or preselection methods were used, the number of lesbian, gay and bisexual participants were nearly evenly matched with nearly one third of participants belonging to each group.

Treatment Fidelity

As presented in chapter 3, the intention of the study was to expose three randomly-assigned groups to nondirective images, mindfulness meditation, or loving-kindness meditation, then compare pre- and post-exposure scores on three brief mental health measures to address the research questions; at the study's conclusion, there were no major deviations from the original plan. The recorded exposure videos all utilized the same images in the same order, with the only difference being the spoken audio-delivered instructions to either relax, participate in mindful breathing, or participate in a guided loving-kindness meditation. One deviation that became necessary was the lengthening of the recorded videos from an estimated 4 minutes to 6 and a half minutes for both meditation videos. The script for the loving-kindness meditation was shortened to allow for relaxed pacing while still keeping content the same, but the length of the video could not be shortened beyond 6 minutes without sacrificing content.

There were no major adverse events associated with the study. One participant expressed an opinion that the study might have done harm by failing to provide guided mindfulness meditation to every participant. The researcher contacted appropriate individuals involved in the study, including the IRB at Walden University. The recommendation and eventual outcome was to respond to the participant's concerns by providing a reminder about the availability of the guided meditation videos to all participants following completion of the study. Other comments received from participants were not adverse events, but reflected the need for more broadly applicable language. One participant suggested that more terminology was needed for gender identity in addition to male, female, male to female transgender, female to male transgender, and intersex. While no suggestions were made for other terminology to use, the terms queer and genderqueer are frequently used identifiers in the LGBT community and would be good candidates for research in future studies.

Results

Statistics were analyzed utilizing SPSS statistical processing software. For each test run, groups were analyzed to ensure homogeneity of variance and approximately normal distribution. These conditions were satisfied in each instance, and no adjustments were needed to the data set. Each research question was analyzed using the same statistical test. Additionally, because the variables of interest could have potentially been altered by participants' prior meditation experiences or identification as being Buddhist, both of these factors were controlled for in the analyses.

First, a one way between subjects ANOVA was performed to assess whether the means of the three groups differed significantly on the three scales at baseline. This was necessary to determine whether significant differences were present between groups before any of the experimental exposures occurred. There were no significant differences across groups on pre-exposure scores on the Emotional Symptoms Checklist, F (2, 125) = 0.36, p = .70. Similarly, the means across groups did not differ significantly on the Unjust World Views Scale, F (2, 125) = 1.59, p = .20, nor did means differ significantly on the Remoralization Scale, F (2, 125) = 2.44, p = .09. Means and standard deviations of the pre- and post-exposure scores by group are presented in Table 8.

Table 8

Means and Standard Deviations of Pre- and Post-Exposure Scale Scores

	Pre-Exposure Mean (SD)	Post-Exposure Mean (SD)
Emotional Symptoms Checklist		
Control	4.15 (3.1)	3.03 (2.9)
Mindfulness	3.97 (3.0)	2.47 (2.8)
Loving-Kindness	3.59 (3.4)	2.00 (2.8)
Unjust World Views Scale		
Control	13.92 (4.1)	13.64 (4.1)
Mindfulness	12.35 (3.5)	12.0 (3.6)
Loving-Kindness	13.04 (4.1)	12.18 (4.4)
Remoralization Scale		
Control	28.84 (8.3)	28.00 (9.0)
Mindfulness	27.47 (6.9)	26.03 (7.4)
Loving-Kindness	25.35 (7.2)	23.45 (7.8)

Research Question One

A one way between subjects ANOVA was conducted to analyze the effect of meditation on pre- and post-exposure score changes on the Emotional Symptoms Checklist, Unjust World View Scale and Remoralization Scale with combined scores on each, using a control group, mindfulness meditation group, and loving-kindness meditation group. There was not a significant effect of meditation group on the three combined score changes at the $p < .05$ level, F (2, 125) = 2.31, $p = .10$. Therefore, any effects on participants from the meditation practice cannot be attributed to an effect greater than what would be expected by chance.

Research Question Two

The second research question was addressed using a one way between subjects ANOVA also, focusing on whether the mindfulness meditation group demonstrated greater pre- and post-exposure score differences compared to the control and loving-kindness groups on the Emotional Symptoms Checklist. There were no significant differences across the three groups on the score change as measured at the $p < .05$ level, F (2, 125) = .39, $p = .67$. The null hypothesis was not rejected in this case, suggesting that there is no significant effect of mindfulness practice on regulation of emotion.

Research Question Three

The third research question was addressed in the same manner, using a one way between subjects ANOVA to determine whether the loving-kindness meditation group showed greater pre- and post-meditation score changes on the Remoralization Scale and Unjust World Views Scale. The results can be described as approaching significance

although they exceeded the $p < .05$ set level, F (2, 125) = 2.60, $p = .07$. The null hypothesis was not rejected in this instance; however, the close proximity to significance suggests the possibility of a minor effect of loving-kindness meditation on world view and life outlook.

Additional Research Findings

Following the initial research questions, additional analyses were conducted to examine whether mental health status had an impact on score changes. One finding was significant; there was a noteworthy difference among the three largest groups of participants with mental health conditions. When the participants who identified as having past or current experiences of depression and anxiety were compared to those who identified no mental health concerns, those in the depression group produced significantly different pre- and post-exposure change scores on the Emotional Symptoms Checklist at the $p < .05$ level, F (2, 111) = 3.85, $p = .02$. In particular, the group of participants reporting depression reported the most drastic changes pre- and post- exposure. A Tukey post hoc analysis showed that the score changes were most significant for the group of participants with depression ($M = 2.27$, $SD = 2.9$) compared to the participants with no mental health concerns ($M = .69$, $SD = 2.3$), $p = .02$. There was no significant difference comparing the participant group with anxiety ($M = 1.64$, $SD = 2.29$) to the other two groups. The effect size of the group assignment on Emotional Symptoms Checklist score change was medium, $\eta^2 = .065$.

While not quantifiable, the comments left by some participants indicated that the practice of mindfulness was at least subjectively beneficial. One participant wrote “I was

feeling pretty positive to start with but the video did relax me more than I thought it would;" another wrote "thank you! I didn't realize how 2-3 minutes of focused relaxation can change my mood so much." Another participant commented: "Thank-you for the video, it released some grief." Similar statements made by several other participants suggest that some aspect of the video—whether it was taking a restful pause, meditating on the breath, or thinking positively of oneself and others—was restorative or uplifting in some manner.

Summary

Study findings indicate that meditation practice did not significantly impact emotional state, world view, or the ability to recover from hardship as predicted by the hypotheses. Participants in both meditation groups did not differ significantly from the control group on their combined scores on the three measures used in the study as proposed in the first hypotheses, so the null hypothesis was not rejected. Similarly, the null hypothesis associated with the second hypothesis was not rejected; the Emotional Symptoms Checklist scores did not vary significantly when comparing the mindfulness meditation group to the control group and the loving-kindness group. Finally, while the third null hypothesis was also not rejected, the third hypothesis approached statistical significance more closely than the prior two. Ultimately, participants in the loving-kindness meditation group approached having a significant difference in their combined Unjust World Views Scale and Remoralization Scale at the $p = .07$ level when compared to the mindfulness and control groups. An extension of the original questions, whether

mental health conditions impacted pre- and post-exposure scores on all three surveys, was significant at the $p = .02$ level.

Despite the lack of support for the study's hypotheses, the results indicate that the practice of mindfulness did provide some change in baseline scores on emotional and cognitive surveys at a lower level of significance than is typically used in social sciences research. Loving-kindness meditation in particular approached significance when causing a change in world view and ability to demonstrate resilience. In the chapter that follows, findings will be discussed in light of existing social sciences research on mindfulness with an emphasis on the potential to assist members of the LGB community. The role of mental health conditions on an individual's receptivity and response to the use of mindfulness practices will be explored as well.

Chapter 5: Discussion and Conclusions

The present study was conducted to determine whether the conscious application of mindfulness techniques could produce changed scores on three different measurements of mental health attributes in LGB participants. A mindfulness meditation group and a guided loving-kindness meditation group were examined compared to a neutral relaxation control group. Participants produced scores on the overall mental health measurement, the Emotional Symptoms Checklist, as well as the Unjust World Views Scale and the Remoralization Scale, both before and after being exposed to the stimulus in their randomly assigned group. Contrary to the hypotheses, the two meditation groups did not produce statistically significant changes when their pre- and post-exposure scores were compared to the scores produced by the control group. According to the study's results, it appears that applications of mindfulness in this LGB sample did not bring about positive mental health changes in depressive or anxious states, self-perception, or world view. An unexpected finding came in a significant difference between pre- and post-exposure scores when participants identifying as depressed were compared to anxious or neutral participants, regardless of their group assignment.

Interpretation of the Findings

The present study's results are surprising given the well-established utility of Buddhist-derived mindfulness principles in relieving a wide variety of physical and mental health conditions, as previously discussed in detail (Kabat-Zinn, 1991; Smalley & Winston, 2010; Kornfield, 2008). The clinical utility of mindfulness practices is widely accepted and research continues to abound on what appears to be a panacea for treatment

of depression, anxiety, inattention, and many physiological conditions as well due to its apparent ability to regulate affect (Hinton, Ojserkis, Jalal, Peou, & Hofmann, 2013; Kelly, 2008). In this context, the lack of support for the study's three hypotheses warrant commentary. The failure of the present study to support the benefits of mindfulness is not assumed to contradict the body of knowledge on its use as an intervention, but rather poses questions about its application here. Specifically, the present study made use of an entirely Internet-based delivery of guided meditations. The nature of an online study necessitates complete reliance on each participant's adherence to the instructions delivered on the screen; however, it is not possible to determine whether participants are actually following along and fully participating in the instructions given. One possible explanation for the lack of expected results in this study could simply be that participants were not motivated by any incentives to participate in the mindfulness practices, and therefore did not actually meditate when asked to do so. This possibility is probably the largest downfall of online research: the researcher's inability to verify compliance with the instructions that were given. Meade and Craig (2012) explored a similar problem in obligatory samples of student participants and noted that data integrity can be compromised by lack of diligence when they provide responses.

Additionally, the brevity of mindfulness exposure could have played a role in lack of support for the hypothesis. The period of meditation in this study was very brief at 4 to 5 minutes, and it is possible that the time allotted was insufficient to bring about calmness and centering effects at a neurological level such that participants would experience a significant or detectable change in mood. Quintana and Rivera (2012)

conducted a study similar in design utilizing the Internet to provide meditation training, and found that higher levels of self-reported stress were correlated with lower state and trait mindfulness; thus, it is possible that if participants in the current study were feeling high levels of stress, they would be less able to be mindful after one training exposure. Carryover effects are possible as a result of the short lapse of time between administrations of the three brief screening tools. Further, new meditators could have potentially benefitted from an introductory session prior to exposure to the actual stimuli in the meditation videos that were used. The concept of slowing down, focusing attention and holding concentration on one's breathing or thoughts could be explained in a separate video—or, ideally, with a researcher in person—prior to meditating during the study's data collection period. Prior research has indicated that online research methods are associated with greater participant fatigue even in simple tasks such as questionnaire completion when compared to paper-and-pencil methods; therefore, fatigue may have been a factor influencing the outcome here as well (Whitehead, 2011).

Each of the three hypotheses predicted improvement on some mental health variable or combination of them, including current mental state as measured in the Emotional Symptoms Checklist, as well as world view on the Unjust World Views Scale and self-perception as measured by the Remoralization Scale; however, no improvement was seen at a statistically significant level. The loving-kindness group produced scores that approached but did not achieve significance on the Remoralization and Unjust World Views Scales. The fact that the loving-kindness condition approached significance more closely than the mindfulness and control groups could again relate to the online nature of

the study. The loving-kindness group received a guided meditation with more constant instructions than the other two groups. The loving-kindness guided meditation video delivered specific instructions with visualizations, whereas both the mindfulness and control groups were given instructions at the beginning of the exercise but not throughout it. It is possible that the loving-kindness condition was more engaging and therefore encouraged participation more easily than the other two conditions, making an effect easier to detect. Alternatively, loving-kindness as a concept could operate more effectively as a mental or emotional regulator than the other two conditions. In a study of participation in a smoking cessation program, McClure et al (2013) found that information given in a prescriptive tone yielded greater engagement in an online program than using a motivational tone. Perhaps the active directions in the loving-kindness guided meditation yielded greater results by taking a similarly prescriptive tone, as opposed to the less elaborate directions given in the control and mindfulness groups.

An unexpected finding in this study was the significant difference in pre- and post-exposure scores according to mental health condition, with participants who self-identified as having had current or past depression showing significantly different scores on the Emotional Symptoms Checklist when compared to the other participant groups. This result was true irrespective of group assignment. This finding is intriguing in that the group of depressed participants was composed of equal numbers of people from the control, mindfulness and loving-kindness groups; so, it can be said that something about the act of taking a break or being encouraged to relax and focus in some way may have led to improved scores after exposure when the Emotional Symptoms Checklist was

completed a second time. This finding echoes the results of Geschwind, Peeters, Drukker, Van Os and Wichers (2011) which found that mindfulness training had a beneficial effect that was limited to short-term positive emotion in depressed adults, although the present study's group of depressed participants was homogenous across the three stimulus groups, leaving the control group participants without any type of mindfulness activity that could account for the score change.

Despite lack of support for the hypotheses, several participants included comments stating that they felt the meditation conditions were enjoyable or helpful in some way, and this subjective sense of benefit could be explored in future studies. The popularity of smartphone applications that deliver targeted meditations throughout the day or on demand testify to the benefits people experience from enjoying a meditative pause; perhaps future studies could delve into what it is about meditation that is enjoyable, and whether the enjoyment that some people experience yields long-term gains. Exploring participants' reactions and understanding their meditation experiences from a subjective perspective could provide more information about whether enjoyment is a necessary factor to benefit in a measurable way.

Limitations of the Study

As there were no significant results obtained from the study related to the three hypotheses, there are no results to generalize to the larger population of LGB people, and therefore there are no limitations of generalizability. Due to the speculated issues in methodology regarding the researcher's inability to verify whether participants were truly meditating when asked to do so, it is appropriate to question the trustworthiness of the

data generated here. It is not possible to determine whether the lack of support for the hypotheses were truly the result of no relationship between variables or simply an artifact of the uncontrolled environment in which the study took place, and data integrity in similarly unmotivated samples has been established to often lack validity (Meade & Craig, 2012). If LGB participants were provided the same instructions and led through guided meditations in a controlled environment, it is possible that data would show an effect of meditation on emotions, self-perception and world view.

Recommendations

Because the benefits of mindfulness and meditation are so well-documented, and in light of the generally positive reception of the present study with the study participants, the researcher recommends exploring mindfulness with LGB participants in a more controlled environment. Although it is equally possible that there is truly no utility for mindfulness in the LGB community, the online teaching format for meditation may not be the most optimal when trying to determine whether mindfulness can influence variables of interest. Rather than assume that mindfulness is not beneficial to LGB people who are in need of more effective therapy modalities based on this study, replicating the study with in vivo training and mindfulness practice is recommended to rule out this possibility.

Popular applications of mindfulness meditation take a similar approach to that used in this study, although some emerging trends in mindfulness practice may be useful in future iterations of clinical mindfulness studies. Since meditation is a learned skill, it is possible that study participants could benefit and show a significant response if they are

given a learning period prior to exposure to a stimulus. Many websites and smartphone applications allow for repeated trials of meditation to establish a practice. Utilizing similar methods, future studies employing mindfulness practices could be improved with inclusion of a live, personal training session with a skilled study leader, perhaps with technology assisting in daily practice following the initial training. Learning meditation techniques in a personalized training session would allow for questions to be answered by participants and could potentially help them to immerse themselves more fully into daily practice than might otherwise be possible using technology alone.

The unexpected finding that participants self-identifying with depression seemed to emotionally benefit from taking a break warrants more exploration as well. The group of depressed participants consisted of people asked to relax, as well as those who practiced mindfulness or loving-kindness meditation. Examining why these participants demonstrated improved scores on their mental health measurements could provide a better understanding of how to effectively treat depression by using mindfulness principles; some existing research in this area indicates that restful periods implicate the amygdala in depressed participants (Way, Creswell, Eisenberger & Liberman, 2010). Areas for future research could include dividing depressed participants into three groups and determining which of the three conditions yielded the most improved scores. Interviewing these participants about their reactions to each of the three conditions could provide useful insight into which conditions are the most uplifting, enjoyable, or otherwise beneficial to people suffering from depression.

Implications

From a research methodology perspective, this study can potentially inform future researchers about best practices and better ways of working with mindfulness in empirical settings. As previously discussed, the teaching and practice of mindfulness in a controlled condition is probably better done with the researcher present as opposed to using an online format. Environmental distractions and a general lack of connectedness in the online platform could contribute to poor adherence to the meditation practice used in a given study, as was thought to be the case here. Future work with not only LGB participants but all clinical samples could benefit from live mindfulness training and guided mindfulness exercises as opposed to prerecorded mindfulness guides. This study also informs about best practices recruiting LGB participants in an online environment. The current study successfully recruited adequate numbers of LGB participants using advertisements and social media without offering tangible incentives for participating. The participant pool represented a broad number of income levels, geographic locations, and ages of people within the LGB community. Thus, it is possible to conduct online research with the LGB community and gain a diverse sample using simple advertising methods on the Internet.

Although mindfulness conditions in this study did not support the hypotheses, the favorable reception of the mindfulness practices by a majority of participants in the study speaks to its potential usefulness with the LGB community. While in this instance data did not support utility of mindfulness, if some participants found it useful or enjoyable, there is a possibility that offering mindfulness practices to LGB people in therapy may

provide other helpful outcomes that do not necessarily translate into quantifiable clinical gains. For example, a gay client could find mindfulness to be comforting even if it does not produce quantifiable improvement on a measurement of depression. This type of benefit could come at the individual level with single therapy clients, and over time lead to larger gains with the LGB population in therapy.

Social Change

The lack of support for the hypotheses set forth in this study limit the scope of social change that could be possible from this work; however, building on the responses of some participants who enjoyed meditating, it is possible that social change could be achieved by raising a felt sense of peace and serenity among some members of the LGB community. LGB community centers as well as therapists who work with LGB people in therapy might consider providing education about the many benefits of mindfulness found in other studies. Practicing mindfulness even briefly as in this study could help LGB people refocus their thought processes, reduce stress, and generally increase their subjective sense of well-being as some participants indicated here. Part of the appeal of mindfulness is that it is readily accessible to all people at any time, and this fact could be made known to LGB people who seek out assistance with coping.

Conclusion

Lesbian, gay and bisexual people face challenges in society because of their minority sexual orientation status; simultaneously, mindfulness practices have been well-documented as ways to reduce stress and increase well-being. The present study sought to determine whether brief mindfulness and loving-kindness meditations could bring

about changes in emotional status, self-perception and world view among LGB participants. While no significant improvements were found based on data, some participants expressed their view that meditating briefly had helped them to feel better in some manner. Based on the body of literature supporting the many benefits of mindfulness, as well as the generally positive reception of the LGB sample to the meditations offered here, it is recommended that future studies explore the applications of mindfulness with LGB people in experimental settings that can be more effectively controlled than the online environment. Therapists who work with LGB people and researchers who examine best practices in clinical populations will need to continue to explore what types of interventions best address the needs of this population. Future research can also focus on what aspects of relaxation or meditation prove to be emotionally stabilizing for people with depression, as indicated here. As studies on mindfulness proliferate in the literature, psychologists could explore alternative ways of leveraging the healing properties of meditation for members of the LGB community who could benefit from them.

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Appendix A: Mindfulness Meditation Script

Following is the script of the guided mindfulness meditation used in the meditation experimental group.

"Sit comfortably in an upright position, with your feet placed flat on the ground. Allow yourself to take an alert but comfortable posture. As you sit, become aware of feeling supported by the chair, and your feet feeling supported by the ground.

Once you are settled in a comfortable seat, bring your awareness to your breathing. Notice your in-breaths and out-breaths without attempting to change the pace or rhythm of your breathing. Quietly keep your awareness on your breathing for the next few minutes. Whenever your attention drifts away to a thought, a noise in your environment, or a sensation in your body, bring your awareness back to your breathing. Repeat this process over and over again for the next few minutes. You may wish to name your breaths, quietly thinking to yourself "inhale" and "exhale" each time you breathe in and out. Begin focusing on your breathing now, and continue until you are asked to stop. Take a few more breaths, and slowly bring your awareness back into the space around you."

Appendix B: Loving-kindness Meditation Script

Following is the script of the guided loving-kindness meditation used in the meditation experimental group.

"Sit comfortably in an upright position, with your feet placed flat on the ground. Allow yourself to take an alert but comfortable posture. As you sit, become aware of feeling supported by the chair, and your feet feeling supported by the ground.

Once you are settled in a comfortable seat, begin by thinking of one person you like; one person you feel neutral about; and one person you struggle to like. Identify a different person for each category.

Take a slow, deep breath and focus on feeling warmth and love in the center of your chest. Breathe again, in and out, focusing on feeling love in your heart.

Now, as you continue to breathe, think of yourself as full of love. Each breath you breathe brings more love and peace into you, and from you into the world. Think to yourself: May I be happy. May I be well. May I be safe. May I be at ease.

Continue this practice. Repeat again: May I be happy. May I be well. May I be safe. May I be at ease. May I be happy. May I be well. May I be safe. May I be at ease.

Now, bring to mind the person you like. Imagine the person standing in front of you. Focus on sending the person love and well-wishes coming from the center of your being. Think of this person in your mind and wish: May you be happy. May you be well. May you be safe. May you be at ease. Continue to breathe and send these wishes to the person. May you be happy. May you be well. May you be safe. May you be at ease. May you be happy. May you be well. May you be safe. May you be at ease.

Next, bring to mind the neutral person. Imagine them standing in front of you. Focus on sending the person love and well-wishes coming from the center of your being. Think of this person in your mind and wish: May you be happy. May you be well. May you be safe. May you be at ease. Continue to breathe and send these wishes to the person. May you be happy. May you be well. May you be safe. May you be at ease. May you be happy. May you be well. May you be safe. May you be at ease.

Finally, bring to mind the difficult person. Imagine them standing in front of you. Focus on sending the person love and well-wishes coming from the center of your being. Think of this person in your mind and wish: May you be happy. May you be well. May you be safe. May you be at ease. Continue to breathe and send these wishes to the person. May you be happy. May you be well. May you be safe. May you be at ease. May you be happy. May you be well. May you be safe. May you be at ease.

Breathe in and out again and focus on sending and receiving love to and from all living things. May we all be happy. May we all be well. May we all be safe. May we all be at ease. Enjoy the sensation of the warmth and well-being you feel. After a few more breaths, bring your awareness back into the space around you."

Appendix C: Emotional Symptoms Checklist

Tell me whether or not you have been experiencing any of these emotions – please answer either yes or no.

1.	nervous	yes	no
2.	sad	yes	no
3.	anxious	yes	no
4.	restless	yes	no
5.	lonely	yes	no
6.	unhappy	yes	no
7.	angry	yes	no
8.	tense	yes	no
9.	worried	yes	no
10.	irritable	yes	no

Appendix D: Remoralization Scale

Instruction: This questionnaire concerns your self-perceptions. Please indicate the extent to which you agree with the following statements by marking the appropriate box. Indicate how you feel at this point in time. Do not think too long before answering; your initial reaction is usually the best. There are no wrong answers. If you feel that the answer you would like to give is not one of the options, please choose that statement which is closest to your answer. Mark only one box per question.

1. I am in control of my life.
2. I am usually confident about the decisions I make.
3. I feel relaxed.
4. On the whole, I am satisfied with myself.
5. I enjoy life.
6. Right now, I see myself as being pretty successful.
7. I take a positive attitude toward myself.
8. At this point in time, I am meeting the goals I set for myself.
9. I feel that I am a person of worth, at least on an equal plane with others.
10. I am generally optimistic about the future.
11. I can think of many ways to reach my current goals.
12. I have self-confidence.

The response scale to be used is:

□ totally disagree □ disagree a lot □ agree a lot □ totally agree

Appendix E: Unjust World Views Scale

Please respond to the following items. Indicate your feelings about each statement using the scale below.

1. I should have more than what I get.
2. The awful things that happen to me are unfair.
3. Things generally do not work out in the end.
4. Those who are unkind often have the most friends.
5. People who do evil things get away with it.

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree

Appendix F: Informed Consent and Study Instructions

You are invited to take part in a research study of the emotional needs of LGB adults. The researcher is inviting adults age 18 and older who identify as Gay, Lesbian or Bisexual to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Jessica Fritzges, who is a doctoral student at Walden University.

Background Information:

The purpose of this study is to learn more about the emotional needs and responses of LGB adults.

Procedures:

If you agree to be in this study, you will be asked to:

- Provide some basic information about yourself such as your age range, sexual orientation, sex and gender identity, and personal characteristics
- Answer some questions about how you feel
- Watch and participate in a short video
- Total time spent on this study should be no more than 10 – 15 minutes

Here are some sample questions where you would answer how much these statements are true for you:

"Things generally work out in the end;" "I have self-confidence;" "I feel restless."

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as feeling upset. Being in this study would not pose risk to your safety or wellbeing.

By participating in the study, you may benefit by learning ways to relax, feel calm, and think more clearly. You will also add to knowledge about ways to help LGB adults feel better.

Payment:

No payment or other type of compensation is being offered to participants. However, you will be able to bookmark videos that you can use later if you choose to continue using the relaxation methods that are part of the study.

Privacy:

Any information you provide will be kept anonymous. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by password protection and online encryption on this website. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:

You may ask any questions you have now or later by contacting the researcher at Jessica.Fritzges@waldenu.edu, or by phone at (xxx) xxx-xxxx. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is xxx-xxx-xxxx (for US based participants) OR xxx-xxx-xxx-xxxx (for participants outside the US). Walden University's approval number for this study is 11-06-14-0046172 and it expires on 11/5/15. If you would like a copy of this informed consent document, please print this page for your records.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By proceeding to the next page and providing information about myself, I understand that I am agreeing to the terms described above.

[Study advances to beginning page]

Before beginning, please ensure you have the ability to watch a video and hear verbally stated instructions, either through speakers or headphones. If you are not able to hear instructions, please close your browser.

[Next page]

Please choose the answers that apply to you.

Biological sex: male or female

Gender identity: male, female, male-to-female transgender, female-to-male transgender, intersex

Sexual orientation: gay, lesbian, or bisexual

Ethnicity: White, Hispanic or Latino, Black or African American, Native American or American Indian, Asian/Pacific Islander, or Other

State or Province: data entry response

Country: data entry response

Age: 18-24 years old; 25-34 years old; 35-44 years old; 45-54 years old; 55-64 years old; 65-74 years old; 75 years or older

Have you experienced in the past, or are you currently experiencing, any of the following diagnosed mental or emotional conditions? Depression; anxiety; other emotional disorder, such as bipolar disorder or schizophrenia; cognitive disorder, such as memory impairment; or other.

Do you regularly practice meditation? Yes or no

The following questions are optional:

What is your employment status? Employed full-time, employed part-time, unemployed, or student

What is your current level of annual income? $10,000-$25,000; $25,001-$40,000; $40,001-$55,000; $55,001-$70,000; $70,001-$85,000; $85,001 and greater

Do you practice or identify with any of the following religious belief systems? Jewish; Christian; Islam; Buddhist; Hindu; or other

[Next page]

Emotional Symptoms Checklist; Remoralization Scale; Unjust World Views Scale

[Next page]

On the next page, you will be shown a video. Please ensure your headphones or speakers are working properly before proceeding. It is best to be in a quiet place if you can. Please follow along with the video instructions.

[Next page]

One of three videos of imagery containing either: Instructions to "use this time to relax as you watch the images;" mindfulness meditation instructions; or loving-kindness instructions

[Next page]

Emotional Symptoms Checklist; Remoralization Scale; Unjust World Views Scale

[Next page]

That's it! Thank you very much for your time!

If you would like to invite an LGB friend to participate in this study, please copy and paste this URL into an e-mail to invite them: [study URL here]

Researchers believe that meditations like the one you may have just seen can bring many health benefits when practiced. If you would like to continue to use the meditations used in this study, please visit and bookmark the following URLs where you can watch the videos as much as you'd like! [links to meditation videos here]

If you have questions, please e-mail the researcher at Jessica.Fritzges@waldenu.edu

Thanks again!

Appendix G: Study Advertisement

Help improve our understanding of the emotions and attitudes of gay, lesbian and bisexual adults! Please consider participating in a brief research study designed to find new ways of helping LGB adults cope. Your 10-15 minutes can help the LGB community! [Link to study here]