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THE ROLE OF MINDFULNESS AND ACCEPTANCE ON THE LIFE SATISFACTION OF GENDER, RACIAL, AND SEXUAL MINORITIES

By

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ABSTRACT

Research suggests that the life satisfaction of gender, racial, and sexual minorities is significantly lower than males, Whites, and individuals who identify as heterosexual, respectively. A disparity in life satisfaction between minority and majority groups needs to be addressed so that interventions may be developed to combat these inequalities. The present study explored whether mindfulness and/or acceptance moderated the relationship between minority status (gender, racial, sexual) and life satisfaction. For example, was the disparity in life satisfaction between racial minorities and Whites reduced as levels of mindfulness increased?

Participants included 309 college students, age 18-25 from two southeastern universities. All data was collected during Summer and Fall 2014. The purpose of the present study was to explore mindfulness and acceptance as potential moderators in the relationship between minority status and life satisfaction, controlling for income, victimization, and health status (i.e., report of a mental health, substance condition, disability, or chronic illness), through two separate hierarchical regression analyses. Life satisfaction, mindfulness, and acceptance were measured by total scores on the Satisfaction with Life Scale (SWLS; Diener, Emmons, & Larson, 1985), Five Facet Mindfulness Questionnaire (FFMQ; Baer et al, 2006), and the Acceptance and Action Questionnaire-II (AAQ-II; Hayes et al. 2004), respectively. Results suggested that college students' levels of dispositional mindfulness did not significantly moderate the relationship between minority status and life satisfaction. However, acceptance was found to significantly moderate the relationship between gender and life satisfaction, wherein as acceptance increased the difference in life satisfaction between male and female college students decreased. Additionally, the relationship between mindfulness and life satisfaction and acceptance and life

satisfaction were explored through two bivariate correlation analyses. Results were consistent with previous literature suggesting mindfulness was significantly positively related to life satisfaction. College students who reported higher levels of dispositional mindfulness were found to have higher levels of life satisfaction. Additionally, college students who reported higher levels of dispositional acceptance were found to have higher levels of life satisfaction. Finally, the relationships between status (i.e., gender, race, and sexual orientation) and life satisfaction, controlling for health status, victimization, and income, were calculated through three ANCOVA analyses. Results suggested that male and female college students did not significantly differ in life satisfaction. LGBQ identified college students and heterosexual college students also were not found to significantly differ in life satisfaction. However, Black/African American/Afro-Caribbean college students were found to have significantly lower life satisfaction than White and Hispanic/Latino college students. None of the other race/ethnicities included in the study were found to significantly differ in life satisfaction. The implications of the present study's findings, limitations, and directions for future research are also presented.

CHAPTER 1

INTRODUCTION

The present study sought to provide empirical support for the moderating effect of mindfulness and/or acceptance on the disparity in life satisfaction between majority and minority groups. A college student population was assessed for differences in life satisfaction in relation to gender, racial and/or sexual minority status. A more detailed review of the literature concerning quality of life and life satisfaction theory, mindfulness, and findings concerning gender, racial, and sexual minorities is provided. Based on the literature detailed herein, it was hypothesized that mindfulness and acceptance would moderate the relationship between minority status and life satisfaction for gender, racial, and sexual minorities. Specifically it was hypothesized that gender, racial, and sexual minorities with higher levels of dispositional mindfulness and acceptance would endorse a significantly higher life satisfaction more akin to respective majority groups. The present study sought to add to the body of literature which suggests that minorities have a lower life satisfaction than respective majority groups. Additionally, the present study sought to investigate the individual relationships between mindfulness, acceptance, and life satisfaction among sampled participants. This chapter orients the reader to the purpose, statement of the problem, social significance of the study, and subsequent research questions investigated in this study.

Social Significance

Gender, racial and sexual minorities represent a significant percentage of the U.S. population. In fact, since minority groups are classified by the dispersion of power rather than actual population statistics, some minority groups represent the statistical majority. For example, women are considered the gender minority (Carli, 1999). However, in 2010 there were

156,964,212 women in the U.S. compared to 151,781,326 men, making women the statistical majority (U.S. Census Bureau, 2010). Additionally, in terms of racial minorities, studies projecting population growth have argued that by mid-21st century Whites will no longer represent the statistical majority in the U.S. (Hsu, 2009; Passel & Cohn, 2008). Even as a smaller group, a substantial number of individuals identify as LGBQ. Although exact population estimates vary, a commonly accepted statistic is that individuals who identify as LGBQ represent 10% of America's population. However, recently the Williams Institute estimated the self-identified LGBQ community to make up 3.8% of the American population (Gates, 2012). There is some difficulty in attaining an accurate population statistic for individuals who identify as LGBQ in the U.S., as many do not disclose their sexual orientation. Additionally, many individuals participate in sexual activities with the same sex, but do not perceive themselves as gay or bisexual. Nonetheless, even the lower population estimates for sexual minorities are substantial enough to warrant attention. All together these three minority groups comprise quite a large portion of the population making any problem that affects all three minority groups both relevant and important.

Statement of the Problem

There are implications within the literature that gender, racial and sexual minorities have significantly poorer quality of life than males, Whites, and heterosexual persons, respectively (Bonsakensen, 2012; Ohaeri, Awadalla, & Gado, 2009; Sandfort, de Graaf, & Bijl, 2003; Tesch-Römer, Motel-Klingebiel, & Tomasik, 2008; Traeen, Martinussen, Vitterso, & Saini, 2009; Williams, Yu, Jackson, & Anderson, 1997; Wilson, 2003). Some research has also found poor quality of life to be predictive of more negative outcomes (Schimmelmann et al., 2005). Specifically, poor quality of life has been correlated with negative variables including various

mental health problems (Damnjanovic, Lakic, Stevanovic, & Jovanovic, 2011; Downing, 2006; Grant et al., 1995; Jho, 2001; Safren, Heimberg, Brown, & Holle, 1997; Stanley, Beck, Novy, Averill, Swann, Diefenbach, & Hopko, 2003). Therefore, not only do minorities report a lower quality of life, but they may be more likely to experience negative outcomes due to their quality of life. This is especially problematic considering minorities already have been found to experience negative variables (e.g., health problems), at disproportionately higher levels than the majority (Bagley & Tremblay, 2000; Gravois & Rosenfield, 2006; Losen & Welner, 2001; Smedley, Stith, & Nelson, 2003).

Moreover, there are implications within the literature that gender, racial and sexual minorities also experience lower life satisfaction, a subcomponent of quality of life, as compared to men, Whites, and individuals who identify as heterosexual (Arango-Lasprilla et al., 2009; Bromley, 1999; Butt, 2009; Kraus, 1993; Tesch- Römer, Motel-Klingebiel, & Tomasik, 2008). Much of the literature in the area of multiculturalism and diversity has investigated disparities facing various minority groups. However, the suggestion that minorities have lower life satisfaction is especially troubling given that this subcomponent of quality of life describes the subjective evaluation of one's satisfaction with his or her life (Browne, O'Boyle, McGee, & Joyce, 1994; Downing, 2006; Herman, 2008; Moons, Budts, & De Geest, 2006). Therefore, lower life satisfaction for minorities may mean that these minority groups in general view their life in a negative light and are likely struggling in a number of areas. Additionally, similar to quality of life, lower life satisfaction has also been related to negative outcomes (Bray & Gunnell, 2006; Lyyra, Törmäkangas, Read, Rantanen, & Berg, 2006).

Subsequently, a disparity in the life satisfaction between the minority and majority groups needs to be addressed so that interventions may be developed to combat these

inequalities. To this end, some research has indicated that mindfulness and acceptance have positive effects on quality of life and its subcomponent of life satisfaction (Brown & Ryan, 2003; Butler & Ciarrochi, 2007; Forti, 2012; Hayes et al., 2004; Keng, Smoski, & Robins, 2011). Therefore, the purpose of this study is to investigate the existence of this relationship and identify whether acceptance and/or dispositional mindfulness acts as a moderator for disparity in life satisfaction between majority and minority groups. Conclusive findings would largely inform both intervention and the approach taken in work with diverse clients. If mindfulness was found to be a moderating factor, it may be beneficial to include mindfulness and acceptance therapies in the therapeutic approach one takes with diverse clients. Findings in this study may also help inform and increase the efficacy of therapy for multicultural groups. Based off of a review of the current literature, statement of the problem, and purpose of the study, the following research questions were identified:

Research Questions

1. Do racial, gender, and sexual minorities have lower quality of life than respective majority groups? This research question will be evaluated across three subcategories: White/Non-White (i.e., Black/African American/Afro-Caribbean/African, Latino/Hispanic, Asian/Pacific Islander, Other), Male/Female, and heterosexual/LGBQ, thereby looking individually at whether there are differences in life satisfaction and minority status across racial, gender and sexual minority groups.
2. Is mindfulness positively related to life satisfaction?
3. Is acceptance positively related to life satisfaction?
4. Does mindfulness moderate the relationship between minority status and life satisfaction?

5. Does acceptance moderate the relationship between minority status and life satisfaction?

In Chapter 2 the literature concerning quality of life and life satisfaction, determinants, and correlates for gender, racial, and sexual minorities is reviewed in detail. In addition, gaps in the literature, inconclusive, and oppositional findings are reviewed and the need for the present study is established. In Chapter 3, more detailed information regarding the specific research design and procedures for collecting and analyzing data is provided. The present study utilized a correlational design. Participants included 309 college students age 18-25, from two different southeastern universities during the summer 2014 and fall 2014 semesters.

Three separate ANCOVA calculations were performed to examine the first research question. Two bivariate correlations were performed to explore the second and third research questions of the present study. Research questions 4 and 5, of primary interest in the present study, were explored through two separate hierarchical regression analyses. The results of the first ANCOVA indicated Black/African American/Afro-Caribbean/Africans had significantly lower life satisfaction than Whites and Hispanic/Latinos, after controlling for income, victimization, and health status. However, significant relationships were not found between life satisfaction and gender, or sexual orientation.

Mindfulness and acceptance were found to have a significant positive relationship with life satisfaction, whereby as levels of mindfulness and acceptance increase so does life satisfaction. However, mindfulness was not found to significantly moderate the relationship between life satisfaction and minority status. Whereas, acceptance was found to significantly moderate the relationship between gender and life satisfaction. More detailed statistical results and findings are described in Chapter 4. Finally, the implications of these findings, limitations of

the present study, directions for future research, and overall conclusions are discussed in Chapter 5.

Definition of Terms

The following definitions are provided in order to clarify the meaning of several terms used in the current and subsequent chapters of this document.

- *AAQ*-II: Acceptance and Action Questionnaire-II; assessment battery developed by Hayes et al. (2004) to measure experiential avoidance, which is treated as synonymous with a lack of acceptance in the present study.
- *Acceptance*: The ability to adopt an accepting and non-evaluative attitude toward the experiences of the present moment (i.e., cognitions, emotions, bodily sensations, etc.) without attempt to change the situation in which events occur (Hayes & Feldman, 2004; Hayes & Plumb, 2007).
- *Dispositional*: Refers to a measurable naturally occurring characteristic or trait, rather than a temporary state.
- *FFMQ*: Five Facet Mindfulness Questionnaire; assessment battery developed by Baer et al (2006) to measure levels of dispositional mindfulness.
- *Gender Minority*: Classification given to women.
- *Health Status*: Used for the purposes of the present study to describe report of a physical or mental impairment (i.e., mental or psychological disorder) that substantially limits one or more major life activities. This includes mental health, substance abuse, disability and chronic illness.

- *Mindfulness*: A state of mindful awareness (Bishop et al., 2004), involving the ability to focus one's attention and awareness on present moment experiences while maintaining an attitude of non-judgmental acceptance (Bishop et al., 2004).
- *Racial Minority*: All racial groups other than White/Non-Hispanics.
- *Sexual Minority*: Individuals who identify with a sexual orientation that is not part of the mainstream accepted culture (i.e., LGBQ; lesbian, gay, bisexual, and questioning).
- *SWLS*: Satisfaction with Life Scale; assessment battery developed by Diener, Emmons, and Larson (1985) to measure individuals' subjective appraisal of their overall level of satisfaction with the quality of their lives.

CHAPTER 2

REVIEW OF THE LITERATURE

The focus of this chapter is on indications within the literature that persons of minority groups (e.g., gender, racial and sexual minorities) have significantly lower quality of life and, more specifically life satisfaction, than men, Whites, and heterosexuals (the respective majority groups). Three areas of interrelated literature are pertinent to the discussion of this concern. First, an area of research focus has investigated whether different minority groups experience issues related to quality of life and life satisfaction, such as economic problems, mental health problems, and victimization at significantly higher rates than respective majority groups. This is important because it informs the formulation of quality of life and life satisfaction as well as provides evidence for the authenticity of the problem. Second, researchers have empirically investigated gender, racial or sexual minority status in relation to quality of life and life satisfaction. Findings in this area also directly inform the authenticity as well as the magnitude of the problem. The third area of literature explores potential moderators of this relationship by investigating skills and interventions that have been found to positively correlate to quality of life and life satisfaction, including mindfulness and acceptance. These three areas of literature together illuminate the various facets of the life satisfaction of minority groups. Subsequently, each area is reviewed.

Life Satisfaction as it Relates to Quality of Life

Defining Quality of Life

The view of quality of life as an important measure of overall well-being and life satisfaction continues to increase in popularity (Kahneman, Diener, & Schwarz, 2000; Utsey, Bolden, Brown, & Chae, 2001). It has been postulated that quality of life can best be

conceptualized as a merging of both the objectively measurable, (e.g., income) and the subjectively experienced, (e.g., perceived happiness or fulfillment) (Campbell, Converse, & Rogers, 1976). To further clarify, the World Health Organization QOL (1995) defines quality of life as,

> …Individuals' perception on their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept, incorporating in a complex way individuals' physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment. (p. 1405)

This definition combines subjective perception with objective variables (physical health and psychological state). However, some researchers have argued quality of life is either objective (Browne, McGee, & O'Boyle, 1997) or subjective (Andrews & Withey, 1976; Diener, 2006). The objective definition of quality of life focuses on observable factors such as income, socioeconomic status (SES), education, and health (Browne, McGee, & O'Boyle, 1997). Whereas, the subjective definition focuses on factors that are not readily observed, such as one's subjective appraisal of life satisfaction or well-being.

Health Related Quality of Life

The objective variable of "health" has received particular attention within the literature as a determinant of quality of life (Mathias, Kuppermann, Liberman, Lipschutz, & Steege, 1996; Schwimmer, Burwinkle, & Varni, 2003; Wilson & Cleary, 1995). Health Related Quality of Life (HRQL) refers to "the physical, psychological, and social domains of health" in determining an individual's quality of life (Testa & Simonson, 1996, p. 835). Indeed, Guyatt, Feeny, and Patrick (1993) explain that researchers have developed both discriminative and evaluative

measurements of quality of life as it relates to physical health. These measures were created to help in determining best forms of medical treatment, as one can measure the impact of disease or of a particular treatment on the individual (Guyatt, Feeny, & Patrick, 1993). Although different from the more general encompassing quality of life definition, HRQOL is sometimes used interchangeably in the literature.

The focus on HRQOL as its own construct grew out of the theory that physical health's interaction with personal and environmental factors is the main determinant in quality of life (Wilson & Cleary, 1995). However, the present study focuses on quality of life in terms of overall life satisfaction rather than solely HRQOL. Overall life satisfaction was selected in lieu of HRQOL because objective measures, such as HRQOL measures, do not account for the subjective differences in an individual's quality of life (Li, Young, Hao, Zhang, …et. al., 1998). For example, by objective terms, individuals with the same health ratings may report the same level of quality of life. However, because subjective measures of quality of life, such as life satisfaction measures, involve one's subjective appraisal of their experience, two individuals may be of similar health and income, but perceive their life with differing levels of satisfaction.

Subjective Quality of Life and Life Satisfaction

The subjective definition of quality of life includes the individual's perception of overall life satisfaction-that is, the perception that one's own life measured up to personal expectations, goals and self-identified needs (Downing, 2006). This definition is consistent with research that identifies and treats life satisfaction as synonymous to subjective quality of life (Browne, O'Boyle, McGee, & Joyce, 1994; Herman, 2008; Lyons, 2005; Moons et al., 2006). It has even been argued that life satisfaction is the greatest predictor of overall quality of life (Herman, 2008). However, it may be more accurate to characterize life satisfaction as one subcomponent

of subjective quality of life in that life satisfaction has been defined by Pavot Diener, Covin, and Sandvik (1991) as a "cognitive aspect" consisting of an individual's evaluation of the quality of his or her life. Additional support for understanding life satisfaction as a subcomponent of quality of life is seen in existence of research that assesses for subjective quality of life using measures that include life satisfaction as one of multiple determinants (Dazord, Astolfl, Guisti, Rebetez, …et al., 1998), while other measures of subjective quality of life do not assess for life satisfaction (Chipuer, Bramston, & Pretty, 2003).

In the literature both quality of life and life satisfaction have also been treated synonymously with the term subjective well-being. Diener (2006) found high convergence between the definition of subjective well-being and the definition of quality of life (WHOQOL Group, 1995). Furthermore, after conducting a review of relevant literature, Camfield and Skevington (2008) suggest subjective well-being and quality of life are virtually interchangeable. However, by definition life satisfaction and subjective well-being are intrinsically related, but not entirely synonymous. Subjective well-being encompasses life satisfaction as well as one's experience of pleasant and unpleasant emotions (i.e., positive and negative affect) (Diener, 2000) and are treated as different constructs within the literature (Busseri, Sadava, & DeCourville, 2007; Moore, Leslie, & Lavis, 2005). For the purposes of this study, the relationship between different types of quality of life and minority status are reviewed, followed by a specific focus on the subcomponent of life satisfaction. .

Quality of Life and Life Satisfaction Theory

While much focus in the literature has been given to the defining of quality of life as a concept, there is an underwhelming amount of attention on quality of life theory (Sigler, 1984). This led Sigler (1984) to develop a quality of life theory based on Maslow's human

developmental perspective. Sigler (1984) proposes that the QOL of a given society is determined by the society's level of need satisfaction. According to Sigler (1984) the level of need satisfaction is hierarchical in nature with more developed societies demonstrating needs at the top of Maslow's hierarchy of needs (i.e., self-esteem and self-actualization). Therefore, according to Sigler (1986) quality of life is dependent on the hierarchical needs of the majority of the society rather than the specific needs of the individual.

Conversely, the quality of life theory proposed by Frisch (1994) suggests that 16 areas of life form the foundation of overall life satisfaction and happiness that contribute to one's quality of life. These 16 domains include: Health, Self-Esteem, Goals-Values, Money, Work, Play, Learning, Creativity, Helping, Love, Friends, Children, Relatives, Home, Neighborhood, and Community (Frisch, 1994). According to Frisch's (1994) quality of life theory, the overall needs of the society do not determine quality of life. Instead, each individual has a quality of life that is determined by these 16 domains. However, rather than the 16 domains influencing quality of life evenly, Frisch (1994) argues that each individual subscribes different levels of value to each domain. Therefore, the domain of community may represent 25% of one individual's quality of life but only 5% of another individual who views community as less essential to well-being. Similarly, Nzaku and Bukenva (2005) propose that multiple factors including physical and psychological health are important contributing variables to an individual's quality of life.

Veenhoven (2000) took another approach to quality of life. Instead of focusing on the determinants of quality of life, he identifies frameworks to distinguish what he saw as four different types of quality of life. According to Veenhoven (2000), although the terms "quality of life", "happiness" and "well-being" are used interchangeably under the umbrella term of "quality of life", these terms can be placed in a four level quadrant to distinguish the types of quality of

life they represent. These four qualities of life include: outer quality of life chances (livability), inner quality of life chances (life-ability), outer quality of life results (utility of a person's life), and inner quality of life results (person's satisfaction with their life). Outer quality of life chances refers to the quality of life related to the external environment of the person (i.e., livability of the person's economic, social, or political environment). Inner quality of life chances (lifeability), refers to the inherent skills and characteristics within an individual that make one capable of living a good life. Examples include an individual's education, nutrition, mental and intellectual capabilities and also physical and emotional health. Outer quality of life results refers to the goodness of a person's life according to its utility from the view of an external third party (e.g., society). This can range from factors such as income and happiness to volunteerism.

The study herein utilizes the type of quality of life termed by Veenhoven (2000) as inner quality of life results. Rather than any external factors, parties or individual qualities this framework looks at individuals' overall quality of life as is determined by their own subjective appraisal of their satisfaction with their life. This approach deals specifically with subjective quality of life in terms of overall life satisfaction. Veenhoven and Ehrhardt (1995) argue that one's life satisfaction is determined by the extent to which their universal needs are being met in their life. However, this is only one of multiple theories that focus on life satisfaction as it relates to subjective quality of life. Lance, Mallard, and Michalos (1995) argue that the most propagated theory on life satisfaction is multiple discrepancies theory (MDT; Michalos, 1985). MDT postulates that net life satisfaction is primarily determined by multiple comparisons including what individuals have compared to what they want, what others have, what they have had in the past (Michalos, 1985).

Quality of Life, Life Satisfaction, and College Students

The definition (Diener, 2006; WHOQOL, 1995) and theory of quality of life (Frisch, 1994) identify quality of life as a complex construct dealing with the interaction of a multitude of factors that influence the individual's overall perception of quality of life. Cognitive ability develops across the lifespan (Glisky, 2007). Given their level of cognitive functioning, children likely have yet to discern their life across the 16-domains noted by Frisch (1994). Furthermore, Hajiran (2006) defines quality of life as, "the product of the interaction between an individual's personality and the continuous episodes of life events" (p. 33). Subsequently, it stands to reason that an adult having undergone more life events is likely to have a more developed evaluation of the perceived quality of and satisfaction with their life. Thus, operating from this framework, the present study sought to focus on the adult population.

Within the larger adult population, several studies have focused specifically on the college-age population and their quality of life of life in relation to various factors (Ghaedi, Tavoli, Bakhtiari, Melyani, & Sahragard, 2010; Grenwald-Mayes, 2002; Murphy, Hoyme, Colby, & Borsari, 2006). Keith, Yamamoto, Okita, and Schalock (1995) investigated differences in the quality of life of college students cross-culturally. The authors found a significant main effect for country of origin, $F(1, 927) = 389.33$, $p<.001$, with Japanese college students reporting a lower quality of life than American college students. This was in contradiction to the authors' hypothesis. The authors explained the findings may be due to cultural bias in the measurement used which favored individual comparisons more common to American culture than Japanese culture. Zullig, Huebner, and Pun (2009) looked at life satisfaction in relation to demographic variables. They found a main effect for race, $F(1, 446) = 3.70$, $p< .05$, wherein minority college students reported less satisfaction with school and self than White students. In addition to

literature investigating the quality of life and life satisfaction of college students, some research has focused on developing measures of the quality of student life (Sirgy, Grzeskowiak, & Rahtz, 2007). The authors proposed that the determinants of quality of life for college students were related directly to the contextual environment of the individual – in this case, college student life.

Therefore, the present study examined life satisfaction among the same population-college students. By controlling for age and restricting the participant population to young adult college students, confounds were reduced. This is important for power concerns, given that so many different groups (i.e., women/male, heterosexual/LGBQ persons, White/Black/African American/Afro-Caribbean/African, Asian/Pacific Islander, Hispanic/Latino, and Other) were already included in the study. Focusing on a single age group, specifically college students, diminished to the possible confounding effect of additional factors not of focus in the study. This was deemed helpful in ensuring participants were not evaluating their life satisfaction differently purely due to factors related to being drawn from a different age or education level.

Correlates to Life Satisfaction

As aforementioned, many components go into the appraisal of one's quality of life. This is why Frisch (2004) designed the Quality of Life Inventory (QOLI); to measure several domains thought to contribute to quality of life. Rather than identifying a particular determinant, Frisch's (2004) measure allows one to endorse a particular determinant as more salient to the construction of their perceived quality of life. Still, the focus of this study is not on the determinants of quality of life, but rather on the single aspect of quality of life – life satisfaction. Other research, however, has focused on identifying variables that significantly correlate to quality of life and life satisfaction, including mental health, victimization, and socioeconomic factors (Barger,

Donoho, & Wayment, 2009; Bray & Gunnell, 2006; Coker et al., 2000; Damnjanovic, Lakic, Stevanovic, & Jovanovic, 2011).

Mental Health

Mental health treatment and intervention is designed to diminish the negative impact of mental health problems and to alleviate symptomology. Indeed, the ultimate goal of mental health providers is to improve the quality of life and life satisfaction of clients (Herman, 2008). In fact, quality of life, life satisfaction, and mental health are considered so intertwined that quality of life and life satisfaction measures are being utilized by practitioners in virtually all mental health fields. Career counselors, life coaches, psychologists, mental health counselors, and industrial and organizational psychologists are just some of the clinicians using quality of life measures (Frisch, 2004). The popularity of quality of life measures in clinical settings is due, in part, to research indicating that data on clients' quality of life can be used as a tool for treatment planning, psychological screening, and determining relapse-risk (Frisch, 1994, 2004; Grant, Salcedo, Hynan, & Frisch, 1995; McAlinden & Oei, 2006). Moreover, quality of life and life satisfaction measures have been frequently used as an outcome assessment to measure the efficacy of mental health treatment (Barry & Zissi, 1997; Bray & Gunnell, 2006; Frisch, 1994, 2004).

Some research has also focused on the specific relationship between quality of life and mental health variables. For example, Damnjanovic, Lakic, Stevanovic, and Jovanovic (2011) conducted a study on 216 children residing in residential foster care. General mental health difficulties, anxiety and depressive symptoms were found to be a significant predictor of quality of life. Furthermore, studies have also found significant relationships between specific mental disorders and quality of life. For example, some of the literature suggests there is a negative

correlation between quality of life and depression (Downing, 2006; Grant et al., 1995). In another study, Jho (2001) assessed the relationship between depression and quality of life in 474 Korean women. Pearson correlations showed a strong negative correlation of $r = -.59$, $p < .001$ between depression and quality of life. Low quality of life scores have also been negatively correlated to other psychological disorders including generalized anxiety disorder (Stanley et al., 2003) and social phobia (Safren, Heimberg, Brown, & Holle, 1997). Therefore, the literature clearly delineates a strong relationship between quality of life and mental health in that quality of life decreases with the rise of mental health problems and symptomology.

An inverse relationship has also been found between life satisfaction and mental health, including the presence of mental health disorders and suicide (Bray & Gunnell, 2006). In a 2012 study, Athay, Kelley, and Dew-Reeves surveyed 334 youth in mental health treatment and analyzed the relationship between life satisfaction, as measured by the Brief Multidimensional Students' Life Satisfaction Scale—PTPB Version (BMSLSS-PTPB; Seligson, Huebner, & Valois, 2003) and youth and clinician-rated symptom severity. The authors found a significant inverse relationship between life satisfaction and mental health symptom severity for both participant ($r = -5.97$, $p < .01$) and clinician report ($r = -2.44$, $p < .01$). Additionally, in their study of 397 Chinese adults, Bao, Pan, Shi, and Ji (2013) found a significant negative predictive relationship between life satisfaction, as measured by the Chinese version of the Satisfaction with Life Scale (SWLS; Diener, Emmons, & Larson, 1985) and mental health problems including depression ($r = -.30$, $p = .012$) and anxiety ($r = -.31$, $p = .015$).

Socioeconomic Factors

The relationship between various socioeconomic factors and subjective well-being has also been a subject of investigation within the literature. For example, higher income, up to a

point, is positively associated with subjective well-being (Sutherland, 1990). Diener and Diener (1995) found that the relationship between income and subjective well-being is asymptotic in nature, rising rapidly at lower levels of income but hitting a ceiling effect at higher income levels, ($b = .77$, $t = 5.38$, $p < .001$). This finding was similarly replicated in 2002 by Diener and Biswas-Diener who once again found a significant positive correlation between income and subjective well-being. This relationship was found to be strongest for extremely impoverished individuals, in that an increase in income allowed these individuals to afford basic necessities and an acceptable standard of living. However, the strength of relationship between income and subjective well-being was reduced if individuals had a higher standard for what was an acceptable gross income, adding further support to the subjective interpretation of life satisfaction.

Waldegrave and Cameron (2010) also investigated the effect of income on well-being. The authors utilized a sample of 1,958 people in New Zealand who were classified as mid-life (i.e., 40-64 years). The authors stated that they found a significant positive relationship between income and well-being. However, analysis of statistical tables shows the authors set the significance level at .10 and the *p* value for income was .068. Therefore, there is the possibility that this finding was due to error (Type 1) allowed by a high significance level rather than a valid finding. Nonetheless, these finding have been supported through the aforementioned studies as well as other research (Lever, 2004).

The relationship between socioeconomic factors, (e.g., income and socioeconomic status; SES) and life satisfaction has also been examined with findings indicating a significant relationship between the variables (Barger, Donoho, & Wayment, 2009). SES involves variables, such as income and education that ascribe an individual to a particular status (e.g.,

upper, middle, lower class). Pinquart and Sörensen (2000) conducted a meta-analysis of the relationship between subjective well-being and SES. In their review of the literature, including 86 studies which used well-being measures of life satisfaction (most often the Life-Satisfaction Index; Neugarten, Havighurst, & Tobin, 1961), the authors found a consistent significant positive relationship between SES and life satisfaction. These findings add empirical support to the already largely recognized positive impact SES and related factors such as income can have on individuals' subjective quality of life and life satisfaction.

Victimization

Victimization refers to being made a victim of physical or psychological violence such as: domestic violence, assault, rape, child abuse, emotional abuse, bullying, and stalking (Pimlott-Kubiak & Cortina, 2003). There is indication within the literature, including on minority populations, that victimization reduces various forms of quality of life (Otis & Skinner, 1996). A similar negative correlation has also been found for the subcomponent of life satisfaction and victimization (Coker et al., 2000). Coker and colleagues (2000) examined the effect of physical and sexual victimization on life satisfaction. Participants included 5,414 adolescent males and females. The authors found severe dating violence and sexual victimization was significantly related to lower scores of life satisfaction in both genders on a modified version of the Multidimensional Student's Life Scale, which measured life satisfaction across the following domains: family, friends, living environment, self, and overall life satisfaction. Additionally, the authors found some gender differences, in that for women severe dating violence was significantly related to overall life satisfaction (Odds Ratio (OR) = 1.69, $p <$ .05), but not for men. However, the authors found that for men severe dating violence was significantly related to three individual domains of life satisfaction: family life (OR = 2.47, p <

.05), friends (OR = 2.72, $p < .05$) and "where I live" (OR = 2.24, $p < .01$). The authors also found that for females sexual victimization was significantly related to lower life satisfaction in the domains of family life (OR = 1.55, $p < .05$) and "where I live" (OR = 1.44, $p < .001$). Whereas, for males sexual victimization was significantly related to lower life satisfaction in the domains of family life (OR = 1.73, $p < .05$), friends (OR = 1.80, $p < .05$), and "where I live" (OR = 1.73, $p < .01$). Also, Soares, Viitasara, and Macassa (2007) assessed the differences in quality of life among 353 men who had been physically abused across their lifespan, to that of 167 non-victimized men. Significant group differences were found with victimized men reporting lower levels of quality of life $F(1, 516) = 17$, $p < .001$).

Emotional, sexual and physical abuse during childhood has also been shown to be related to lower life satisfaction and quality of life using various measures including the SWLS (Adams, 1995; and WHOQOL (Al-Fayez, Ohaeri, & Gado, 2012)). Greenfield and Marks (2010) analyzed the data of 3,024 participants in the National Survey of Midlife in the U.S. (MIDUS). Results of a multivariate regression analysis suggested an association between report of childhood physical and psychological abuse and poorer subjective well-being. The authors found a significant association between report of both physical and psychological violence and poorer well-being for both physical and frequent psychological violence, ($b = -.26$, $p < .001$); and frequent physical and frequent psychological violence ($b = -.35$, $p < .001$). Greenfield and Marks (2010) referred to emotional abuse as psychological violence. The authors also found that psychological violence, absent of any report of physical violence, was related to poorer subjective well-being, ($b = -.25$, $p < .05$). This is consistent with Brodski and Hutz (2012) who found a moderate correlation ($r = .47$, $p < .01$) between emotional abuse and life satisfaction, as measured by the SWLS (Diener, Emmons, Larsen, & Griffin, 1985).

Another form of victimization, bullying, has also been related to poorer life satisfaction (Flaspohler, Elfstrom, Vanderzee, Sink, & Birchmeier, 2009), as measured by the BMSLSS (Seligson, Huebner, & Valois, 2003). Studies conducted outside of the U.S. have also resulted in similar findings for quality of life. In one such study, Velderman, van Dorst, Wiefferink, Detmar, and Paulussen (2008) conducted two separate studies examining the quality of life of victims of bullying. In both studies bullying victimization was associated with significantly poorer quality of life. Therefore, there is some indication within the literature that being victimized by bullying significantly correlates to both poorer quality of life and life satisfaction.

The Social Construction of Minority Groups

The term minority is not defined by something as objective as statistics and population percentages. Instead the term minority is defined by the distribution of power in society and the subsequent impact of power on both the subjective and objective variables in people's lives (Hacker, 1951). These sociological categories have been created according to the dispersion of power in society, by singling out individuals according to physical or cultural characteristics as well as through the recurring prejudice they face for being a minority (Hacker, 1951).

Gender Minorities

Given the definition by Hacker (1951) that minority status is a social power distinction, rather than by a population estimate, women are considered a minority group. Although gender is biologically defined and women represent a statistical majority (U.S. Census Bureau, 2010) women are termed the *gender minority* due to unequal access to power (Carli, 1999) as well as the recurrent discrimination they face for their gender. Recent research indicates that women continue to encounter instances of sexism and prejudice that is inherent within society (Bobbit-Zeher, 2011; Klonoff & Landrine, 1995; Palomino & Peyrache, 2010, Swim & Hyers, 1999).

Despite the feminist movement and subsequent gains by women in the workplace, recent literature points to the continuation of gender discrimination in the workplace (Gorman, 2005). For example, Swim and Hyers (2001) conducted three daily diary studies. The first study included 40 undergraduate students. Of this sample participants reported experiencing an average of one sexist incident per week.

The authors' second study was comprised of 20 female and 17 male undergraduate students. Female participants reported a mean of 3.45 incidents of sexism per week with only one woman reporting no incidents (Swim & Hyers, 2001). This number was even higher in the third study with women reporting a mean of 6.11 (1 per day) incidents of sexism. Despite the variance in incidence, all three findings suggest that sexism occurs more frequently among women. It is, in part, the prevalence of sexism within society that situates women as a minority group.

Racial Minorities

Perhaps the most currently researched minority group is racial minorities. However, the definition of race itself has been extensively debated. Early theorists argued that race was defined through genetic differences. Thompson (2004) explains that in the 1700's some early researchers argued that White people had superior cognitive and motor skills than non-Whites and used this argument to support slavery. Slaves were reported to possess deficiencies in intelligence, personality, and morals (Thompson, 2004). These attacks were used to make claims that slaves therefore, could not care for themselves sufficiently or as well as a White slave owner and thus slavery was actually a benevolent system protecting the vulnerable slaves from destitution (Thomas, 1972). However, numerous studies have shown not only a lack of significant genetic variance between racial groups (Hirschfield, 1996; Sternberg, Grigorenko, &

Kidd, 2005), but also more genetic differences have been found within racial groups than between them (Brown & Amelagos, 2001). Therefore, race has been posited as a socially constructed concept (Goffman, 1959; Leibler, 2004; Omi & Winant, 1994; Sternberg, Grigorenko, & Kidd, 2005).

Race is considered socially constructed because the different races have been identified not through actual genetic or biological differences, but through prejudice and power (Hacker, 1951). Whites as a whole hold the majority of power in the U.S. and subsequently categorized all other races as minorities. Certain races have also been given the classification *racial minorities*. Due to the unequal dispersion of power, encounters with racism are not isolated incidents but rather recurring at the individual, institutional and structural level (i.e., societal structure) (Jeanquart-Barone & Sekaran, 1996) and subsequently further ostracize and oppress these populations.

Sexual Minorities

The American Psychological Association (2008) defines sexual orientation as the emotional, romantic, and/or sexual attraction to either or both sexes. They go on to explain that sexual orientation is also a sense of identity and that therefore the term *sexual minority* refers to individuals who identify with a sexual orientation that is not part of the mainstream accepted culture. Currently in the U.S. this includes people who identify as lesbian, gay, bisexual, and queer/questioning (LGBQ), due to the fact that individuals who identify as heterosexual constitute the majority both in distribution of power and population percentage (Gates, 2012). Also, individuals who identify as LGBQ are further categorized as a minority group through the recurring prejudice and marginalization they experience (Herek, 1993, 2000; Uhl, 1996). Finally, it is important to note that although all minority groups experience inequality, sexual

minorities are the only individuals not currently afforded all the same legal rights as other citizens in the U.S.

Rationale for Selected Minority Groups

Gender, racial, and sexual minorities were chosen as the minority groups of focus in the present study for multiple reasons. One factor that contributed to this choice was the obvious benefit of finding moderating factors to improve the life satisfaction of gender, racial, and sexual minorities, given the already disproportionate rates at which members of these minority groups have been found to experience a number of negative variables and outcomes (Bagley & Tremblay, 2000; Gravois & Rosenfield, 2006; Losen & Welner, 2001; Smedley, Stith, & Nelson, 2003).

For example, a study by Walls, Potter, and VanLeeuwen (2009) investigated whether past custody by social services was a risk factor for suicide attempts amongst homeless sexual minority youths. The authors found that sexual orientation was related to the negative variable of past suicide attempts as findings indicated that participants who identified as a sexual minority were 3 times more likely to have attempted suicide than those who identified as heterosexual. However, the authors found little change in suicide attempts for sexual minority homeless youth who had been in the custody of social services versus those who had never been in custody. Still, the authors point to the already significantly higher probability of sexual minority homeless youth to attempt suicide than their heterosexual counterparts. Given that being a gender, racial, and/or sexual minority is predictive of such negative outcomes it becomes evident that identifying potential moderating factors that could improve the life satisfaction and act as protective factors for these minority groups is essential. Of course, although not the focus of the present study, other minority groups (e.g., the learning disabled, low SES, etc.) also experience

negative outcomes (Dias, Ware, Kinner, & Lennox, 2013; Laaksonen, Rahkonen, Martikainen, & Lahelma, 2005; Shessel & Reiff, 1999).

Low SES minorities were not selected as a minority group of focus in the present study as it has been suggested that higher levels of dispositional mindfulness may be difficult to attain for individuals of low SES due to a more stressful and burdened lifestyle (Andrews, 2009). This hypothesis was supported through results of a Pearson zero-order correlation between scores on the Mindfulness Attention Awareness Scale (MAAS; Brown & Ryan, 2003) and SES, $r = .25$, $p < .01$. Therefore, not only may mindfulness be more difficult to attain for socioeconomic minorities (low SES), but also the research on the relationship or benefits of mindfulness and acceptance for other minority groups, such as the disabled and socioeconomically disadvantaged, is somewhat lacking.

Conversely, some research suggests mindfulness-based therapies are effective for gender, racial, and sexual minorities in combatting negative correlates to life satisfaction, such as mental health problems (Dutton, Bermudez, Matás, Majid, & Myers, 2013; Gayner et al., 2012; Leong & Kalibatseva, 2011; Liehr & Diaz, 2010; Witkiewitz, Greenfield, & Bowen, 2013), low income (Dutton, Bermudez, Matás, Majid, & Myers, 2013), and victimization (Crowder, 2013; Dutton, Bermudez, Matás, Majid, & Myers, 2013). Dispositional mindfulness has also been found to be related to improved mental health (Gayner et al., 2012). Finally, a study conducted by Monti et al. (2006) found that a mindfulness-based art therapy intervention significantly improved HQOL for women with cancer.

In the following sections of this chapter, the literature is reviewed that suggests gender, racial, and sexual minority groups experience three main factors correlated to low life satisfaction (i.e., victimization, negative socioeconomic factors, and mental health problems) at

disproportionately higher rates than males, Whites, and heterosexuals, respectively. These three variables are specifically reviewed because they appear to negatively influence life satisfaction and are, therefore, identified as potential confounds. Therefore, the need to statistically control for other factors (i.e., income, psychological/physical illness or disability, and the victimization) during analysis is established.

Negative Correlates to Life Satisfaction Experienced by Women

Mental Health

Gove (1980) reports that based on the literature, women may experience more mental health problems than men. Specifically, some research has shown the prevalence of several mental health disorders is greater amongst women, most notably depression (Bonsaksen, 2012; Gater et al., 1998; Nolen-Hoeksema, 2001; Weissman, 1984; Weissman, Bland, Joyce, & Newman, 1993). This difference is quite large with women experiencing depression at about twice the rate of men (Weissman & Klerman, 1977). Studies have also found that women are diagnosed with posttraumatic stress disorder at higher rates than men (Breslau, Davis, Andreski, Peterson, & Schultz, 1997). The gender disparity is similar to depression with research indicating women are diagnosed with posttraumatic stress disorder at about twice the rate of that for men (Kessler, Sonnega, Bromet, & Hughes, 1995).

Research has also found gender differences in other anxiety disorders (Bourden et al., 1998; Kessler et al., 1994). A study by Xu et al. (2012) specifically investigated gender differences in social anxiety disorder (SAD). The authors reported that 1983, participants met criteria for SAD. Gender differences were extreme with females reporting SAD at 1.35 times the rate of that for men. Beyond affective and anxiety disorders, gender differences in eating disorders are also well documented with women having significantly higher prevalence rates

(Hoek, 2006; Striegal-Moore, & Bulik, 2007). Consequently, the research supporting the disproportionate prevalence of mental health concerns for women is striking

Socioeconomic Factors

Another area that has received empirical attention is gender disparities in poverty and income and the resultant effect on the quality of life of women (Belle & Doucet, 2003). Despite the growth of women in the workforce, women continue to receive lower salaries than men (Gibelman, 2003). Roszkowski and Grable (2010) assessed the income of 451 men and 266 women who were clients of financial planners. Statistical analysis showed a significant gender difference, $F(1, 715) = 116.96$, $p < .001$ with women reporting lower incomes than men. Specifically, census data indicates women earn 81% of the salary earned by males (U.S. Department of Labor, 2010). This phenomenon is not exclusive to racial minorities with White women also earning significantly less than White males (Keaveny & Inderrieden, 2000).

Due in part to lower incomes, there is also a higher prevalence of poverty amongst women compared to males. Lichtenwalter (2005) used data collected from the 2000 U.S. census and found that in all 70 U.S. cities surveyed women fell below the poverty line at higher rates than men. However, gender disparities in poverty are not solely found in the U.S. In fact, Diana Pearce (1978) conceptualized the term *feminization of poverty* to encapsulate the significantly higher rates of poverty found amongst women in almost all countries (Casper, McLanahan, & Garfinkel; 1994).

Victimization

Another variable negatively correlated to life satisfaction that is disproportionately experienced by women is victimization. One of the most abhorrent and yet frequent forms of victimization women face is sexual abuse. The higher prevalence of childhood sexual abuse

among women compared to males has been documented (Briere & Elliott, 2003; Finkelhor, Ormrod, Turner, & Hamby, 2005; Gault-Sherman, Silver, & Sigfúsdóttir, 2009; Hooper & Warwick, 2006). In his survey of 657 female and 167 male participants Wellman (1993) found 6% of men and 13% of women reported a childhood sexual abuse history. This is consistent with findings that 7% to 19% of women and between 3% and 7% of males are sexually assaulted during childhood (Cutler & Nolen-Hoeksema, 1991). However, the Center for Disease Control and Prevention (2005) estimates that approximately one in four girls encounter some form of sexual abuse before the age of 18. Young, Grey, and Boyd (2009) investigated sexual assault by peers within and outside of school. Participants were 1,086 students in grade 7 through 12. A high of 51% of girls reported peer sexual assault compared to 26% of high school boys. Additionally, girls reported significantly higher rates of rape. Finally, not only are women more likely to be sexually victimized as children but some researchers argue the effects of the trauma is greater for girls including: greater distress, withdrawal, PTSD symptoms and depression (Cutler & Nolen-Hoeksema, 1991; Ullman & Filipas, 2005b).

Gender disparities in sexual victimization do not appear to end post-adolescence. There is some evidence that adult women still experience significantly higher rates of sexual assault than adult men (Sundaram, Laursen, & Helweg-Larsen, 2008). An even greater gender gap was found among adults in a study by Elliott, Mok, and Briere (2004) in their analysis of data collected from 941 participants. The authors found 22% of adult women reported adult sexual assault in comparison to only 3.8% of adult men. Gender disparities also exist for more severe forms of sexual assault including forced sexual intercourse. Basile, Chen, Black, and Saltzman (2007) analyzed data from a national survey and found 11.7 million women reported having been raped in their lifetime compared to only 2.1 million men.

Unlike sexual abuse, some studies have indicated that women are physically abused during childhood at lower rates than men (Finkelhor, Ormrod, Turner, & Hamby, 2005; Turla, Dünder, and Özkanli, 2010). However, the study conducted by Turla Dünder, and Özkanli (2010) was conducted in Turkey and therefore results are not generalizable to the United States. Still although other studies found gender differences, these differences were not statistically significant (Briere & Elliott, 2003). In their survey of 131 male and female adolescents, Meyerson, Long, Miranda, and Marx (2001) did not find significant gender differences in reported physical abuse x^2 (1, N = 130), p = .08.

Still, although there are mixed findings in whether physical abuse is more prevalent for men than women, some research suggests cases of victimization via intimate partner violence as more prevalent for women than men (Coker et al., 2002; Foran, Slep, & Heyman, 2011; Kevin, 2005; Romans, Forte, Cohen, DuMont, & Hyman, 2007). The findings of other studies have been mixed, however. Murty et al. (2003) found non-significant gender differences in intimate partner violence (p = .11). Vivian and Langhinrichsen-Rohling (1994) found a higher prevalence of intimate partner victimization in women in one subgroup but higher victimization of men in the other subgroup. However, the authors also found a higher prevalence of injury in women and suggested intimate partner victimization may be more physically severe for women and more negatively affect their mental health.

The idea that intimate partner violence has a more negative effect on mental health for women compared to men is also supported by the even greater gender disparity in intimate partner violence found in some clinical populations. For example, Schneider, Burnette, Ilgen, and Timko (2009) examined the prevalence of intimate partner violence among men and women

receiving treatment for substance disorder and found one in two women reported having been victimized by an intimate partner in comparison to one in ten men.

The exact prevalence of intimate partner violence in women varies by country as well as by population. For example in a survey of nine countries, Garcia-Moreno, Jansen, Ellsberg, Heike, and Watts (2006) found 13% to 61% of women reported physical victimization by their intimate partners. However, the research on gender differences in intimate partner violence is not conclusive. Recent empirical studies as well as reviews of the literature and statistical reports have resulted in the suggestion that there are no significant gender differences in the prevalence of intimate partner violence (Chan, 2012; Hines & Douglas, 2009; McKenry, Serovich, Mason, & Mosack, 2006). In fact, a recent study reported that male participants reported victimization by intimate partners at higher rates than female participants (Hoff, 2012).

Gender Minorities and Life Satisfaction

Given the higher prevalence of variables negatively related to life satisfaction, it is logical to believe that women would report significantly lower life satisfaction than males, which recent research has supported (Bonsakensen, 2012; Ohaeri, Awadalla, & Gado, 2009; Tesch-Römer, Motel-Klingebiel, & Tomasik, 2008). A study conducted in Norway by Derdikman-Eiron et al. (2011) found that boys without mental health symptoms had significantly higher subjective well-being than girls who were also devoid of symptoms. This gender difference was not found among those who presented symptoms of anxiety and depression. However, the relationship between gender and quality of life has been found to persist in some medical populations, including HIV positive individuals (Chandra, Satyanarayana, Satishchandra, Satish, & Kuman, 2009; Pereira & Canavarro, 2011).

Additionally, other studies indicate women have significantly lower life satisfaction than men (Butt, 2009). In a meta-analytic review of 93 sources, Haring, Stock, and Okun (1984) found men had significantly higher scores of subjective well-being and life satisfaction than women. Further support of this relationship has been found in studies conducted in other countries as well. Gamma and Angst (2001) conducted a longitudinal study on 215 females and 192 males from a community cohort in Zurich, Switzerland. The authors found that female participants reported lower quality of life in almost all the domains measured. Although, an overall quality of life measure was not used, women scored significantly lower on the following domains: physical and psychological well-being, total distress, work, and childhood. Bromley (2000) conducted another study in which he administered the Extended Satisfaction with Life Scale as an overall measure of quality of life to 225 high school students and 197 college freshmen. Bromley (2000) found significant gender difference in general life satisfaction, with women reporting significantly lower levels of life satisfaction than males.

Conversely, some research has not found a significant difference in life satisfaction between males and females. For example, Shmotkin (1990) found males had higher life satisfaction than females but that the difference was not statistically significant. Additionally, Ng, Loy, Gudmunson, and Cheong (2009) measured individuals using the SWLS (Diener, Emmons, & Larson, 1985). A preliminary MANCOVA with life and marital satisfaction as dependent variables was significant for gender $F(2, 420) = 7.27$, $p = .001$. However, the follow-up between-subjects test found that men and women did not differ significantly in life satisfaction ($M_{women} = 25.21$, $SD = 5.34$; $M_{men} = 25.09$, $SD = 4.92$). Although Ng, Loy, Gudmunson, and Cheong (2009) specified results were similar to those reported for U.S. samples, the authors utilized a Malaysian population. Therefore, the necessity for continued

research into the relationship between gender and life satisfaction is clear. Still another study by Chen and Zhang (2004) found life satisfaction was actually significantly higher for women than men.

Negative Correlates to Life Satisfaction Experienced by Racial Minorities

Mental Health

Research into racial differences in the prevalence of mental health problems and disorders has resulted in mixed findings. For example, a study conducted by Warheit, Holzer, and Arey (1975) which surveyed 1,645 participants on the severity of mental illness, found that African Americans had significantly higher scores on the General Psycholopathology Scale (measure designed to assess for psychosis) and the Phobia Scale than White participants. Specifically, African Americans scored as "high" on the General Psychopathology Scale at twice the rate of White participants and three times the rate of White participants on the Phobia Scale. Another study by Wilson (2003) utilized data from a national survey on 2,867 participants and found African Americans reported significantly lower levels of psychological well-being than White participants, as measured by a general life satisfaction item, "Now please think about how satisfied you are with your life as a whole. How satisfied are you with your life as a whole these days?" Results of the study also found African Americans reported significantly more symptoms of depression, but similar rates of major depressive disorder on the Center for Epidemiologic Studies Depression Scale (CES-D) than White participants. In addition, Radigan (2004) found African Americans were disproportionately hospitalized for mental illness as children. Other studies have shown racial minorities have experienced specific psychological disorders at higher rates than White individuals (Chow, Jaffe, & Snowden, 2003).

Much of the current research focuses exclusively on differences between African and White Americans. However, Albert (2002) analyzed data from 1,005 psychiatric patients in aftercare which was classified as facilities that exclusively treated adults with severe mental illness (e.g., vocational rehabilitation programs and partial hospitalization programs). The authors found racial/ethnic minorities had significantly higher rates of PTSD with 29.11% of Hispanic participants, 20.15% of African-Americans, but only 12.6% of White participants. The study by Albert (2002) was one of few studies, however, that focused on racial minorities other than African Americans suggesting a need to focus on other groups in empirical research. Despite significant findings, others have found no significant differences in the prevalence of mental health problems and disorders between racial minorities and Whites (Grubaugh et al., 2006).

For example, Harris, Edlund, and Larson (2005) found that African American, Asian, Mexican, Central and South American participants reported significantly less mental health problems compared to White participants. Three measures were utilized: a clinically validated measure of serious mental illness, an abbreviated version of the Composite International Diagnostic Interview-Short Form, and a survey of unmet need for mental health treatment. The authors did find, however, that American Indian/Alaskan Natives had significantly higher rates of mental health problems relative to White participants. Therefore, although much of the research suggests racial minorities disproportionately suffer from mental illness, continued attention needs to be given to assessing the existence and direction of the relationship between race and mental health.

Socioeconomic Factors

Despite gains made through civil rights, racial minorities continue to disproportionately live in poverty. In fact Costello, Keeler, and Angold (2001) found poverty amongst African Americans was 3 times the rate for Whites. However, this socioeconomic disparity is not exclusive to African Americans but universal to all racial minorities. Hispanic, Pacific Islander, American Indian/Alaskan Native, and Native Hawaiian families are also overrepresented under the poverty line (National Center for Education Statistics, 2007). For example, 27.4% of African Americans and 26.6% of Hispanics live in poverty compared to 9.9% of Whites (U.S. Census Bureau, 2010).

The racial disparity found in poverty statistics is partially explained through inequalities in incomes. Research suggests racial minorities continue to receive unequal pay to that of White counterparts (Grodsky & Pager, 2001) and are disproportionately represented in the lowest incomes. Semyonov and Lewin-Epstein (2009) analyzed census data from years between 1960 and 2000. The authors found that at all points in time Whites had significantly higher incomes than African Americans. Additionally, the authors noted that although the gap had decreased, the decrease was not at a rate consistent with gains racial minorities had made in occupation type and education level.

Victimization

The literature on victimization experienced by racial minorities is extensive with much of the research indicating several types of victimization are more prevalent among racial minorities than Whites. For example, Ullman and Filipas (2005a) surveyed 733 college students and found significant differences in the prevalence of childhood sexual abuse for racial minorities versus Whites, with African American and Hispanic women reporting significantly higher rates of

childhood sexual abuse. This difference was fairly large; with 40.3% of African American and 33.3% of Hispanic women reported childhood sexual abuse versus 25.5% of White women. Asian women were the only minority group that reported a lower prevalence of childhood sexual abuse than White women. The authors also found differences in the severity of childhood sexual abuse experienced between racial groups. African American and Hispanic women reported higher rates of attempted or completed penile penetration than Whites.

Another study by Lindholm and Wiley (1986) found that African Americans, but not other racial minority groups, were disproportionately victims of childhood sexual abuse in comparison to Whites. On the other hand, Lodico, Gruber, and DiClemente (1996) found both African Americans and Native Americans reported significantly higher rates of childhood sexual abuse than Whites. Lodico, Gruber, and DiClemente (1996) also found that adolescent racial minorities as a group, reported childhood sexual abuse at 1.8 times the rate of White adolescents. Despite these findings, the literature is not conclusive as some researchers have found childhood sexual abuse to be more prevalent for Whites than racial minorities (e.g., Cappelleri, Eckenrode, & Powers, 1993; Wyatt, Loeb, Solis, Carmona, & Romero, 1999).

Additional research has postulated that racial minorities experience higher rates of childhood physical abuse. Hawkins et al. (2010) analyzed data from two national probability samples on the prevalence of childhood physical abuse. In the first study, the authors found African American children reported significantly higher lifetime prevalence of childhood physical abuse than White children. However, in this study no racial minority groups other than African American significantly differed from Whites in report of childhood physical abuse. In the second study both the African American and Hispanic children reported higher rates of childhood physical abuse than the White children in the study.

Even higher prevalence rates have been found in studies solely focusing on physical abuse experienced by minority women. Maker, Shah, and Agha (2005) administered a self-report survey to 251 women assessing for childhood experiences of physical abuse. Prevalence was found to be extremely high: 73% of South Asian and Middle Eastern, 65% of East Asian, and 78% of Latina women reported experiencing at least one form of childhood physical abuse. Also, Crouch, Hanson, Saunders, Kilpatrick, and Resnick (2000) found that African American and Hispanic children reported a greater prevalence of witnessing family violence (another form of child abuse) than White children. Finally, although little research has investigated racial differences in childhood neglect, a study by Scher, Forde, McQuaid, and Stein (2004) found childhood neglect was significantly more prevalent in African Americans than Whites.

Additionally, studies have shown that racial differences in victimization are found amongst adults as well. Kalof (2000) investigated the sexual victimization history of 383 undergraduate students and found significant racial differences. Kalof (2000) found a significant main effect for race on college sexual victimization experiences. Hispanic women reported the highest prevalence of incest (26%), followed by African American (23%), Asian (21%) and White women (16%). Attempted rape was also higher for minorities with 26% of Hispanic and 16% of White women reporting attempted rape after the age of 18. However, some studies have not found racial differences in the prevalence of sexual assault (Wyatt, 1992), while another study by Sorenson and Siegel (1992) found significant ethnic differences ($p < .01$), with 19.9% of Whites versus 8.1% of Hispanics reported a history of sexual assault

Research has also suggested Native Americans have a higher incidence of physical abuse by an intimate partner (Wahab & Olson, 2004). Whereas, Bohn, Tebben, and Campbell (2004) found incidence of intimate partner violence was highest amongst African American and Puerto

Rican women. Other studies have suggested racial minorities also have significantly higher prevalence rates of intimate partner violence (Jasinski & Dietz, 2003). In their review of the literature, Field and Caetano (2004) found African American and Hispanic persons reported about twice the rate of intimate partner violence as Whites.

Some research has found racial minorities also experience significantly higher rates of other forms of victimization. For example, Taylor, Esbensen, Peterson, and Freng (2007) assessed the prevalence of violent crime victimization in 5,935 eighth-grade students. Violent crime victimization included assault, aggravated assault and robbery. The authors found significant racial differences with Native American, African American, and Hispanic persons reporting higher rates of being victimized by violent crimes than Whites. However, other researchers have found no racial differences in violent crime victimization (McIntyre & Spatz, 2011).

Racial Minorities and Life Satisfaction

Beyond mixed research suggesting racial minorities experience variables negatively related to quality of life and life satisfaction at higher rates, the results of some empirical studies have indicated racial minorities have indeed reported significantly lower life satisfaction than Whites on various measures including the SWLS and the Life Satisfaction Index A (Arango-Lasprilla et al., 2009; Kraus, 1993; Williams, Yu, Jackson, & Anderson, 1997; Wilson, 2003). A study by Barger, Donoho, and Wayment (2009) of 350,000 U.S. adults also found a significant relationship between life satisfaction (as measured by the question ‘‘In general, how satisfied are you with your life?’’) and race, with both African Americans and Hispanics reporting significantly lower life satisfaction. Additionally, using meta-analytic techniques, Stock, Okun, Haring, and Witter (1985) found racial differences in subjective well-being indicators, including

life satisfaction, with African American persons reporting significantly lower levels of subjective well-being than White persons.

Another study by Yang (2008) focused on the subjective well-being variable of happiness. Although happiness is not interchangeable with life satisfaction it is a component within the overall construct of quality of life and well-being (Diener, 2000). Yang (2008) utilized data from the General Social Survey (GSS) which was collected over a 33 year period from 1972 to 2004. Racial differences in happiness were found to be highly significant; statistical analysis revealed that being African American was associated with over a 50% reduction in happiness, OR = .481, CI = (.450, .514), $p < .001$.

However, some studies have not found significant racial differences in life satisfaction (Bromley, 2000; Burton, Rushing, Ritter, & Rakocy, 1993). Given the inconsistent findings further empirical attention needs to be given to investigating possible racial differences in quality of life. Furthermore, it is important to note that, most studies compared African American persons to White persons, suggesting the need for further research on the quality of life of other ethnic groups.

Negative Correlates to Life Satisfaction Experienced by Sexual Minorities

Mental Health

Psychological health research has found a greater risk for mental health problems and psychiatric disorders among individuals who identify as LGBQ than heterosexual persons (Cochran, 2001; Cochran, Keenan, Schober, & Mays, 2000; Cochran & Mays, 2000; Fergusson, Horwood, & Beautrais, 1999; Ghorayeb & Dalgalarrondo, 2011; Gilman, Cochran, Mays, Hughes, Ostrow, & Kessler, 2001; Herrell et al., 1999; Lock & Steiner, 1999; Meyer, 2003; Remafedi, French, Story, Resnick, & Blum, 1998; Sandfort, De Graaf, Bijl, & Schnabel, 2001).

Specific psychological disorders have also been found to be more prevalent among sexual minorities compared to individuals who identify as heterosexual. This includes generalized anxiety disorder and conduct disorder (Fergusson, Horwood, & Beautrais, 1999), eating disorders for men identifying as gay or bisexual (Feldman & Meyer, 2007; Koh & Ross, 2006; Robin et al., 2002), and major depressive disorder (Cochran & Mays, 2000; Fergusson et al., 1999; Koh & Ross, 2006). Elevated rates of depression may partly explain empirical research suggesting sexual minorities are more likely report past suicide attempts and ideation (Faulkner & Cranston, 1998; Fergusson et al., 1999; Garofalo, Wolf, Wissow, Woods, & Goodman, 1999; Hershberger & D'Augelli, 1995; Koh & Ross, 2006; Remafedi et al., 1998; Robin et al., 2002; Russell & Joyner, 2001). In fact, D'Augelli and Hershberger (1993) found 42% of participants who identified as lesbian, gay and bisexual reported at least one past suicide attempt. Research also indicates individuals who identify as LGBQ are more likely to suffer from substance dependence and engage in substance abuse (Cochran, Ackerman, Mays, & Ross, 2004; Fergusson et al., 1999). Furthermore, women who identified themselves as lesbian and bisexual, in particular, reported elevated alcohol use (Cochran et al., 2000; Cochran, & Mays, 2000; Drabble, Midanik, & Trocki, 2005).

The results of other studies have suggested that sexual minorities have higher levels of psychological distress than heterosexual persons. King et al. (2003) conducted a study in England on a large sample of men who identified as gay, women who identified as lesbian, and men and women who identified as heterosexual. Men who identified as gay and women who identified as lesbian were found to have experienced significantly greater psychological distress than heterosexual participants of the same gender, despite similar levels of physical health and social support. More specifically, 44% of men who identified as gay and 35% of men who

identified as heterosexual in the sample scored above the threshold for psychological distress, $X^2(1) = 8.28$, $p = .004$, as measured by the Clinical Interview Schedule (CIS; Lewis, Pelosi, Glover et al., 1999). Similarly, 44% of women who identified as lesbian and 34% of women who identified as heterosexual reported significant psychological distress beyond the standard threshold of 11/12, $X^2(1) = 10.34$, $p = .001$.

The results also indicated that men who identified as gay and women who identified as lesbian were more likely to have consulted a mental health professional than men who identified as heterosexual (OR 2.9, 95% CI 2.2 – 3.7) and women who identified as heterosexual (OR 2.8, 95% CI 2.1 – 3.6), respectively. Additionally, the findings suggested that men who identified as gay and women who identified as lesbian had received mental health treatment, engaged in self-harm practices, and participated in recreational drug use at higher rates than those who identified as heterosexual. Women who identified as lesbian were also more likely to have reported higher levels of drinking than women who identified as heterosexual.

Greater psychological distress in sexual minorities has also been found in other studies. Cochran and Mays (2007) analyzed data on 2,272 adults living in California. The authors found women who identified as lesbian (adjusted $b = .25$, $p < .05$) and bisexual (adjusted $b = .60$, $p < .001$) reported significantly higher rates of psychological distress compared to women who identified as heterosexual. Cochran and Mays (2007) also found men who identified as gay (adjusted $b = .27$, $p < .01$) and homosexually experienced (adjusted $b = 1.01$, $p < .001$) reported significantly higher rates of psychological distress compared to men who identified as heterosexual. Subsequently, mental health has been identified as an important area of concern for sexual minorities, made even more salient by the indication that sexual minorities suffer from

more mental health problems than heterosexual persons, thereby potentially lowering their quality of life.

Socioeconomic Factors

Some studies have found a correlation between sexual minorities and negative socioeconomic factors. For example, research suggests that individuals who identify as LGBQ make less money than individuals who identify as heterosexual despite having higher educations (Egan, Edelman & Sherrill, 2008; Factor & Rothblum, 2007). Additionally, not only do individuals who identify as LGBQ often receive lower pay in general, but they are also legally unprotected against termination on the sole basis of their sexual orientation in 29 American states and often report job discrimination related to their sexual orientation (Ragins, Cornwell, & Miller, 2003).

However, some research indicates that unequal pay is only a problem for men who identify as gay (Elmslie & Tebaldi, 2007). According to Black, Gates, Sanders, and Taylor (2000) men who identified as gay earned up to 16 % less than heterosexual males, while women who identified as lesbian earned up to 34 % more than women who identified as heterosexual. Blandford (2003) also found men who openly identified as gay/bisexual received significantly lower pay, $p < .01$, than men who identified as heterosexual while men who openly identified as gay and women who identified as lesbian experienced a wage increase of 23.4%, $p < .05$ compared to women who identified as heterosexual. These findings are not worldwide, however, as research in Australia has found women who identified as lesbian also received lower pay than heterosexuals (Carpenter, 2008). In general, socioeconomic factors affecting sexual minorities present as more sparsely investigated than other variables (i.e., mental illness, victimization, etc.)

that have been shown to correlate to quality of life. Nonetheless, there is still at least some indication within the literature that sexual minorities are disadvantaged socioeconomically.

Victimization

Along with mental health concerns, risk for victimization has been found to be more prevalent for sexual minorities than for individuals who identify as heterosexual (D'Augelli, Grossman, & Starks, 2006; D'Augelli, Pilkington, & Hershberger, 2002; Faulkner & Cranston, 1998; Russell, Franz, & Driscoll, 2001; Williams, Connolly, Pepler, & Craig, 2005). For example, Robin et al. (2002) utilized a cross-sectional sample of 14,623 Vermont high school students and 8,141 Massachusetts high school students. The authors found adolescents who identified as LGBQ reported being threatened or injured at school at 3 to 6 times the rate of their peers who identified as heterosexual. There is some indication that risk for victimization is greater for sexual minorities who disclose their sexual orientation at a younger age (Pilkington & D'Augelli, 1995) and those who are more open about their orientation (D'Augelli & Grossman, 2001).

The victimization of sexual minorities also often includes sexual and physical abuse during childhood (Austin et al., 2008; Corliss, Cochran, & Mays, 2002). In fact, according to a meta-analysis conducted by Friedman et al. (2011) comparing adolescents who identified as LGBQ to adolescents who identified as heterosexual, adolescents who identified as LGBQ reported on average 2.9 times the rate of childhood sexual abuse and 1.3 times the rate of physical abuse. Additionally, Saewyc, Bearinger, Heinz, Blum, and Resnick (1998) conducted a study on the LGBQ population and found that females who identified as lesbian and bisexual were significantly more likely to report sexual abuse and negative body image than the male participants who identified as gay and bisexual. The authors note that the gender differences for

youth who identified as LGBQ were even more extreme than what is found in the general population.

Another form of victimization experienced by minorities is intimate partner violence. Unfortunately, little research has been conducted to investigate the prevalence of intimate partner violence amongst same-sex couples, but there is postulation that prevalence rates are at least equal to heterosexual couples (Chan, 2012; Hines & Douglas, 2009; McKenry et al., 2006). Furthermore, an illuminating study on the relationship between sexual orientation and victimization was conducted by Balsam, Rothblum, and Beauchaine (2005). The authors examined lifetime victimization of 557 women/men who identified as gay/lesbian, 163 men/women who identified as bisexual, and 525 men/women who identified as heterosexual. Sexual orientation was found to be a predictor of almost all of the victimization variables included in the study, including intimate partner violence. Specifically, participants who identified as lesbian, gay, and bisexual reported significantly higher prevalence of childhood psychological abuse, $t(1254) = -5.42$, $p < .001$, childhood physical abuse, $t(1254) = -3.46$, $p < .01$, childhood sexual abuse, $t(1254) = -4.42$, $p < .001$, intimate partner physical assault in adulthood, $t(1254) = -3.44$, $p < .01$, intimate partner psychological maltreatment ever in adulthood, $t(1254) = -3.21$, $p < .01$, completed rape in adulthood, $t(1254) = -5.19$, $p < .001$, and overall lifetime victimization, $t(1254) = -5.65$, $p < .001$ compared to heterosexual participants (Balsam et al., 2005). Therefore, although the literature on sexual minorities and victimization is less robust than other minority groups, there is still some noteworthy support of the idea that sexual minorities experience higher rates of victimization than heterosexual persons.

Sexual Minorities and Life Satisfaction

Given the negative factors correlated to sexual minorities, it follows that the life satisfaction of sexual minorities would be poorer than for heterosexual persons. Indeed, a review of the literature does provide some indication that individuals who identify as LGBQ have significantly poorer quality of life and life satisfaction than individuals who identify as heterosexual. For example, Sandfort, de Graaf, and Bijl (2003) assessed the quality of life of sexual minorities in comparison to heterosexual persons in Norway ($N = 7,076$). The authors found that men who identified as gay and bisexual, but not women, significantly differed from persons who identify as heterosexual in respect to quality of life. However, it is important to note that the researchers operationalized sexual orientation as recent same-sex sexual activity rather than subscribed identity. Therefore, individuals treated as sexual minorities in the study may have identified themselves as heterosexual, which may have accounted for the lack of findings for women who identified as lesbian and bisexual.

Another study was conducted by Traeen, Martinussen, Vitterso, and Saini (2009) on a total of 872 participants gathered from four countries. The study compared the life satisfaction of individuals who identified as lesbian, gay and bisexual persons to individuals who identified as heterosexual. Results were significant, $p < .05$, with men who identified as heterosexual and women scoring higher on the Satisfaction-With-Life Scale (Pavot & Diener, 1993) and the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) than individuals who identified as gay, lesbian, and bisexual in all cities included within the study. In addition, among the individuals who identified as gay, lesbian, and bisexual, life satisfaction was higher for participants whose cultures were more accepting of their sexual orientation. This finding also adds support to the research suggesting persons of minority status experience lower life

satisfaction in part due to experiences with discrimination (Herek, 2000; Herek, Gillis, & Cogan, 1999;; Otis & Skinner, 1996).

However, not all of the current literature indicates sexual minorities have lower quality of life or life satisfaction. A study by Horowitz, Weis and Laflin (2001) utilizing data from 11,543 interviews found only weak relationships between sexual orientation and quality of life. It is important to note, however, that the authors who conducted this study failed to control for gender. Despite these findings, the majority of the literature indicates individuals who identify as LGBQ do have lower life satisfaction than individuals who identify as heterosexual, which presents as a concerning area of inequality.

Mindfulness

Mindfulness and Acceptance

Mindfulness is a fundamental concept of newer generation cognitive psychotherapies (Bishop et al., 2004; Shapiro, Carlson, Astin, & Freedman, 2006) that describes conscious awareness and sensitivity to context and perspective (Langer, 1992). Mindfulness can be briefly defined as a state of mindful awareness (Bishop et al., 2004). It involves focusing attention and awareness on present moment experiences while maintaining an attitude of non-judgmental acceptance (Bishop et al., 2004). Dispositional mindfulness refers to mindfulness as a measurable naturally occurring characteristic or trait, rather than a temporary state brought on by a health or mindfulness-based intervention (Brown & Ryan, 2003).

Mindfulness theory does not identify specific age-related milestones in the development of mindfulness. However, mindfulness largely relies on the individual's cognitive abilities of attention, awareness, and perception. Research has shown that both attention and perception tends to peak in young adults and decline with middle to old age (Glisky, 2004; McDowd &

Craik, 1988; Monacelli, 2011). Therefore, it follows that the young adult college-age population may be an ideal population in terms of mindfulness development. Mindfulness relies heavily on an individual's ability to devote attention to their present moment experiences and gain awareness of their emotions as they occur. Young adults have further developed attention and awareness than children, but have not yet begun to decline in cognitive abilities. Therefore, young adults may be more apt to display higher levels of trait or dispositional mindfulness, the type of mindfulness of interest in the present study.

One of the main components of mindfulness theory is an accepting and non-evaluative attitude toward the experiences of the present moment (i.e., cognitions, emotions, bodily sensations, etc.). Some researchers consider acceptance to be a necessary component of mindfulness (Baer, 2003; Baer, Smith, & Allen, 2004; Brown & Ryan, 2003, 2004). In adopting an accepting stance, an accepting individual experiences internal and external events openly, at face value, without attempting to change the situation with which they occur (Hayes & Feldman, 2004; Hayes & Plumb, 2007). Evaluative labels have been postulated to inhibit genuine experience of the here-and-now, narrowing awareness and constraining attention. Subsequently, one's ability to be open and refrain from ascribing evaluative labels on the present experience is an important element within acceptance (Marlatt & Kristeller, 1999). As an individual maintains awareness of private events, acceptance enhances the range of internal experiences, allowing the individual to remain present and, over time, clearly delineate personal values (Hayes et al., 1999). The individual is able to live in the present moment, attune to his or her emotions, process what is occurring and eventually accept the event. The current literature often treats acceptance as a subcomponent of mindfulness, despite some indication that acceptance on its own has beneficial effects.

Mindfulness and Mental Health

Mindfulness theory has led to the development of several interventions such as mindfulness-based cognitive therapy (Segal, Williams, & Teasdale, 2002), dialectical behavior therapy (Linehan, 1993), and mindfulness-based stress reduction (MBSR; Kabat-Zinn, 1990). Another intervention, acceptance and commitment therapy (ACT; Hayes, 2004; Hayes, Strosahl, & Wilson, 1999) is often included in the literature as a mindfulness-based intervention despite its origin in relational frame theory (Hayes, 2004). This is largely because ACT uses mindfulness as well as acceptance-based strategies. These therapeutic modalities and other mindfulness-based practices utilizing various principles of mindfulness continue appear to increase in commonality and use (e.g., Hayes, 2004; Hayes, Strosahl, & Wilson, 1999; Kabat-Zinn, 1990; Linehan, 1993; Segal, Williams, & Teasdale, 2002).

Recent research has found mindfulness-based interventions have a positive effect on mental health (Brown & Ryan, 2003). Mindfulness-based interventions are found to improve numerous mental health symptoms including depression (Hoffman, Sawyer, Witt, & Oh, 2010; Kaviani, Hatami, & Javaheri, 2012; Kaviani, Hatami, & ShafiAbadi, 2008; Ma & Teasdale, 2004; Young & Baime, 2010), anxiety (Hoffman, Sawyer, Witt, & Oh, 2010; Young & Baime, 2010), and substance abuse relapse prevention (Bowen et al., 2009). As a result of research indicating the efficacy of mindfulness-based interventions for a number of mental health issues, the utilization of mindfulness-based interventions by mental health practitioners has increased rapidly over the past decade (Baer, 2003).

As was aforementioned, the literature shows mental health and quality of life appear to be closely related (Damnjanovic et al., 2011; Grant et al., 1995; Jho, 2001; Safren, et al., 1997;

Stanley et al., 2003). Therefore, findings that mindfulness positively impacts mental health, provides implication for a relationship between mindfulness and quality of life.

Mindfulness and Life Satisfaction

The concept that mindfulness would be effective for improving life satisfaction makes sense given the nature of the components of mindfulness, including present awareness, emotional attunement, and non-judgmental acceptance. Mindfulness-based therapy has been shown to help individuals, including gender, racial, and sexual minorities, combat stress and negative thinking arising out of disproportionate mental health problems, victimization, and socioeconomic problems, as well as improve outcomes (Crowder, 2013; Dutton, Bermudez, Matás, Majid, & Myers, 2013; Gayner et al., 2012; Leong & Kalibatseva, 2011; Liehr & Diaz, 2010; Witkiewitz, Greenfield, & Bowen, 2013).

Beyond the implied, however, a growing number of researchers have investigated the relationship between mindfulness and quality of life. Several studies have found improvements in quality of life after mindfulness-based intervention, as measured by the Quality of Life in Depression Scale (QLDS; Godfrin & van Heeringen, 2010) and the World Health Organization Quality of Life Questionnaire (WHOQOL-BREF; Kaviani et al., 2008, 2012). A study by Schulte (2007) assessed the effect of mindfulness-based cognitive therapy on patients with hypothyroidism and found participants' quality of life significantly increased as measured by the QOLI.

Another study by Carmody and Baer (2008) assessed the effect of mindfulness-based stress reduction (MBSR) and levels of mindfulness on psychological well-being as measured by the Scales of Psychological Well-Being (Ryff & Keyes, 1995). The authors found a significant increase in psychological well-being post MBSR intervention, $t(174) = -9.77$, $p < .001$.

Additionally, Roth and Robbins (2004) found quality of life of both Hispanics and Whites improved post mindfulness-based intervention, as measured by the SF-36. Overall, however, very little research has focused on the effectiveness of mindfulness-based interventions on improving the life satisfaction of various minority populations. Present research has also turned to the relationship between mindfulness and the construct of life satisfaction. Findings suggest a significant positive relationship wherein mindfulness-based intervention has been found to increase life satisfaction, as measured by the SWLS (Harnett et al., 2010; Shapiro, Brown, Thorensen, & Plante, 2011).

A 2008 study by West looked at five different measures of mindfulness the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003), Kentucky Inventory of Mindfulness Skills (KIMS; Baer et al., 2004), Five Facet Mindfulness Questionnaire (FFMQ

; Baer et al, 2006), and the Mindful Thinking and Action Scale for Adolescents (MTASA; West et al., 2005; as cited by West, 2008) and the scales' relationship to life satisfaction, as measured by the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson et al., 2002; as cited by West, 2008). West (2008) found a significant correlation between life satisfaction and MAAS, $r = .35$, $p < .01$. Additionally, West (2008) found significant correlations between life satisfaction and all subscales of the MTASA ranging from .12 to .43, $p < .01$. Correlations between life satisfaction and subscales of the KIMS ranged from -.8 (observation, $p < .05$) to .40 (Acceptance without judgment, $p < .01$). Finally, the author found correlations between life satisfaction and FFMQ items ranged from non-significant -.05 (Observe) to .34 (Nonjudging, $p < .01$).

Although receiving mindfulness-based therapy does not necessarily equate to increased mindfulness in clients, these findings provide some support for the possible relationship between

dispositional mindfulness and life satisfaction. There is also some indication within the current literature that dispositional mindfulness is positively correlated with quality of life and life satisfaction, with higher levels of mindfulness significantly associated with higher levels of quality of life and life satisfaction (Forti, 2012; Keng, Smoski, & Robins, 2011).

In developing a measure for the mindfulness construct, Brown and Ryan (2003) found a significant correlation between mindfulness and life satisfaction. High scores on their Mindful Attention Awareness Scale (MASS) were correlated to fewer reported somatic symptoms or complaints as well as positively correlated to various measures of well-being, including life satisfaction. Kong, Wang, and Zhao (2014) assessed the relationship between dispositional mindfulness and life satisfaction, as measured by the SWLS for 310 Chinese adults. The authors found a significant positive relationship between dispositional mindfulness and life satisfaction, $r = .35$, $p < .001$. However, despite these findings, the research into dispositional mindfulness is rather limited as most studies have focused on changes after mindfulness intervention. Therefore, the need for more research that specifically focuses on the relationship between dispositional mindfulness and life satisfaction is indicated.

Acceptance and Mental Health

Acceptance has been given attention in the literature both as a coping mechanism and as a basis for therapeutic interventions (e.g., ACT). Although the literature often includes ACT as a mindfulness intervention it is also often treated as an acceptance-based intervention because it predominantly focuses on the importance of non-judgmental acceptance of present moment experiences. Literature has shown ACT as an effective intervention for a number of psychological problems (Hayes, Louma, Bond, Masuda, & Lillis, 2006). For example, ACT and other acceptance-based interventions have also exhibited efficacy in the treatment of specific

psychological disorders including affective and anxiety disorders (Eifert & Heffner, 2003; Levitt, Brown, Orsillo, & Barlow, 2004; Zettle, 2003), OCD (Twohig, Hayes, & Masuda, 2006; Twohig et al., 2010), substance use disorders (Louma, Kohlenberg, Hayes, & Fletcher, 2012), and comorbid disorders (Petersen, 2007). However, due to the inclusion of ACT as a mindfulness-based intervention it is hard to ascertain whether positive impact post ACT can be attributed directly to improved acceptance or some other component of mindfulness. This is because ACT therapy includes a commitment to action as well as acceptance (Hayes, 2004; Hayes, Strosahl, & Wilson, 1999). Still, given the emphasis put on acceptance within ACT and other acceptance-based interventions there is at least some indication for acceptance having positive effects on mental health.

Further implication of the benefits of acceptance for mental health is derived from research where acceptance as a unique construct has been associated with both immediate and long-term improvement in emotional stability, and mitigation of previously distressing symptoms (Hayes et al., 2004). Additionally, heightened attention in the absence of acceptance (experiential avoidance) has been connected to increases in anxiety, fear, depression and general feelings of mental ill-health (Hayes et al., 2006; Hayes et al., 1999). Subsequently, although literature focusing on acceptance specifically is rather sparse, there is some indication with the current literature that acceptance may improve mental health.

Acceptance and Life Satisfaction

The current state of the research on the relationship between acceptance, quality of life, and life satisfaction is somewhat lacking. This is in part due to the fact that whereas numerous measures have been created to measure quality of life, life satisfaction, and mindfulness, few measures of the acceptance construct, independent of mindfulness, have been developed. Still,

there has been some indication that higher levels of acceptance are related to higher levels of quality of life and life satisfaction.

Hayes et al. (2004) describe the creation and initial psychometric properties of the Acceptance and Action Questionnaire (AAQ), a 16-item inventory based on the theoretical foundations of Relational Frame Theory (Hayes, Barnes-Holmes, & Roche, 2001) and ACT (Hayes et al., 1999). This instrument is specifically focused on measuring experiential avoidance, which the authors treat as the direct opposite or absence of acceptance (Hayes et al., 2004). Therefore, high scores on the AAQ are indicative of avoidance and immobility while low scores suggest higher levels of acceptance (Hayes et al., 2004). The authors discovered within their sizeable clinical, student and community sample (N = 2,400), that those with higher scores on this instrument, which indicated high experiential avoidance and low levels of acceptance, also reported lower quality of life and affective well-being, and greater feelings of anxiety, depression and unpleasant physical symptoms.

In addition, Butler and Ciarrochi (2007) investigated the relationship between acceptance and quality of life in the elderly. The authors administered the AAQ and the Comprehensive Quality of Life Scale (CQOL-A-5; Cummins, 1997) as measures of acceptance and quality of life, respectively. Statistical analysis revealed that acceptance was correlated with higher total objective quality of life (r =.45, p < .01) and total subjective quality of life (r = .29, p < .01).

While some research has focused on the relationship between acceptance and quality of life through measures of acceptance such as the AAQ, other researchers have investigated changes in quality of life post acceptance-based interventions, such as ACT. Crosby (2011) measured increases in quality of life after receiving ACT for compulsive pornography use. In Crosby's 2011 study, the authors found a significant increase in quality of life post ACT was

observed compared to the control group; however the increase was small (3%) and the sample size used for the study was also very small ($N = 28$). Additionally, the authors found a non-significant main effect for group, $F(1, 25) = 4.10$, $p = .054$, partial $\eta^2 = .14$.

Another study by Twohig et al. (2010) assessing the impact of ACT on individuals with obsessive compulsive disorder included a slightly larger sample size (N=34) and found a significant increase in the quality of life of participants post ACT (effect size = .47). Once again, although ACT contains elements of mindfulness, the primary focus is on acceptance and, thus, these findings provide some implication of a relationship between acceptance and quality of life. The research on the specific relationship between life satisfaction and acceptance is also sparse. Lundgren, Dahl, Yardi, and Melin (2008) performed a randomized controlled trial on 18 patients with epilepsy and found that participants who received ACT showed significant increase in life satisfaction, as measured by the SWLS. Another study by Forman, Herbert, Moitra, Yeomans, and Geller (2007) assessed 101 adults with anxiety and depression and found participants showed a significant increase in life satisfaction measured by the SWLS after ACT intervention, $F(2, 98) = 9.92$, $p < .01$ (partial $\eta 2 = .17$). However, further examination is necessary to ascertain whether ACT relates to dispositional acceptance.

Directions for the Present Study

The present study focused on addressing several gaps in the literature in need for further research. Based on the review of the current literature, it seemed a useful endeavor to further investigate the relationship between life satisfaction and each minority group. While preliminary research had been conducted to investigate the relationships between life satisfaction and gender, racial, and sexual minorities; results were far from conclusive. In fact, the previous research on sexual minorities and life satisfaction resulted in mixed findings. Additionally, past studies have

defined sexual orientation as participation in same-sex sexual activity, whereas the present study will operationalize sexual orientation needs as an individual identifying with a sexual orientation (i.e., heterosexual or LGBQ).

For racial minorities, much of the previous literature focused on health related quality of life (HRQL). This is perhaps due to the plethora of HRQL research indicating racial minorities suffer from medical problems and illness at vastly higher rates than Whites. However, the life satisfaction experienced by racial minorities is of equal importance. Of the research focusing on this, much of the current literature indicated that racial minorities have significantly lower life satisfaction than Whites (Arango-Lasprilla et al., 2009; Kraus, 1993; Stock et al., 1985; Williams et al., 1997). However, not all of the current literature pointed to a significant relationship (Bromley, 2000; Burton et al., 1993). Furthermore, of the current research in this area, most studies focused exclusively on difference in life satisfaction between African Americans and Whites. This drew attention to the need to include other racial minorities in addition to African Americans in the present study. Moreover, little research had been conducted on differences within racial minority groups, although, Utsey, Chae, Brown, and Kelly (2002) found that African Americans had significantly higher quality of life than Hispanic and Asian American participants.

The present study also focused on further investigating the implication that higher levels of mindfulness are positively related to life satisfaction. Much research on mindfulness has focused on the positive impact mindfulness has on mental health (Bowen, et al., 2009; Brown & Ryan, 2003; Kaviani et al., 2012; Hoffman et al., 2010; Ma & Teasdale, 2004; Young & Baime, 2010). However, less empirical attention has been given to the impact of mindfulness on life satisfaction, despite the fact that quality of life is often used as an outcome measure for mental

health services. Although the current state of the literature is consistent in finding a positive relationship between mindfulness and life satisfaction, research in this area is still far from substantial. In particular, the current research on levels of dispositional or trait mindfulness and life satisfaction, as opposed to mindfulness-based intervention, is lacking. Subsequently, one of the research questions investigated in the present study focused on dispositional mindfulness specifically as it relates to life satisfaction.

Next, the current research on acceptance as a distinct construct is extremely lacking despite the consensus being that an open, receptive and non-judgmental approach to common everyday experiences is vital to attain mindfulness. Thus, the present study sought to investigate acceptance as a separate construct and how acceptance relates to life satisfaction. Although the current literature showed some indication acceptance may be related to life satisfaction (Forman, Herbert, Moitra, Yeomans, & Geller, 2007; Lundgren, Dahl, Yardi, & Melin, 2008), further investigation needs to be made in this area in particular looking at acceptance as a construct assessed through reliable and valid measures such as the Acceptance and Action Questionnaire (AAQ-II; Hayes et al., 2004), rather than assessment of life satisfaction improvement post acceptance-based intervention. Also, some studies in this area have relied on small sample sizes or less than optimal methods of methodological concern. Therefore, best efforts were made in the present study to include an adequate sample size that was representative and generalizable in order to provide both accurate and useful information. Additional findings suggesting a significant positive relationship between acceptance and life satisfaction would greatly inform treatment and intervention, hence why this was an included area of focus in the present study.

Most of the current literature has focused on the correlational relationship between life satisfaction and mindfulness and acceptance independently. Therefore, the present study sought

to investigate both mindfulness and acceptance as potential moderators of the relationship between status as a gender, racial, sexual minority and life satisfaction. Findings would inform intervention as well as address a gap in the current literature. Ideally, information gleaned through future research would aid in the improvement of life satisfaction for marginalized minority populations. Findings in this area may also inform therapeutic work with minority clients as well as the field of multicultural counseling in general.

CHAPTER 3

METHODS

The literature review identified the disparity in life satisfaction experienced by gender, racial, and sexual minorities when compared to male, White, and heterosexual individuals. Literature indicating that higher dispositional levels of mindfulness and acceptance may moderate this disparity was also discussed. Chapter 3 describes the methodology employed in the present study and provides justification for the selected research and design methods. Specifically, the population of interest and statistical analyses needed for interpreting data are described. Additionally, it is important to note that The Florida State University Human Subjects Committee of the Institutional Review Board approved the conduction of the present study using the methods described herein. (See Appendix A)

Purpose

The purpose of the present study was to assess whether mindfulness moderates the disparity in life satisfaction found amongst gender, racial, and sexual minorities in comparison to respective majority groups (males, Whites, and heterosexuals).

Research Questions

As has been discussed, there is indication within the research that gender, racial and sexual minorities experience lower life satisfaction than do individuals from respective majority groups. In addition, there is indication within the literature that mindfulness and acceptance improve life satisfaction, a subcomponent of quality of life. Therefore, based on these findings and current gaps in the literature, the present study proposed the following research questions:

1. Do racial, gender, and sexual minorities have lower life satisfaction than respective majority groups? This research question will be evaluated across three subcategories: White/Non-White (i.e., Black/African American/Afro-Caribbean/African, Latino/Hispanic, Asian/Pacific Islander, Other), Male/Female, and heterosexual/LGBQ, thereby looking individually at whether there are differences in life satisfaction and minority status across racial, gender and sexual minority groups.
2. Is mindfulness positively related to life satisfaction?
3. Is acceptance positively related to life satisfaction?
4. Does mindfulness moderate the relationship between minority status and life satisfaction?
5. Does acceptance moderate the relationship between minority status and life satisfaction?

Moderating vs. Mediating Variables

It is important to point out that the present study sought to examine mindfulness and acceptance as moderating variables. Although, Baron and Kenny (1986) explain that in the literature some researchers have treated moderating and mediating variable synonymously, they are in fact distinctly different in both definition and statistical purpose. A variable is a mediator when it is also predicted by the independent variable and implies that the effect of the independent variable on the dependent variable is in fact caused by a third mediator variable (Fairchild & MacKinnon, 2009). Therefore, in order for mindfulness and acceptance to be mediators we would be arguing that the relationship between minority status and life satisfaction would not exist without mindfulness and acceptance. We would have to be hypothesizing that

minority status causes lower dispositional mindfulness which is in turn causing lower life satisfaction (See Figure 1). This is not what was hypothesized in this study.

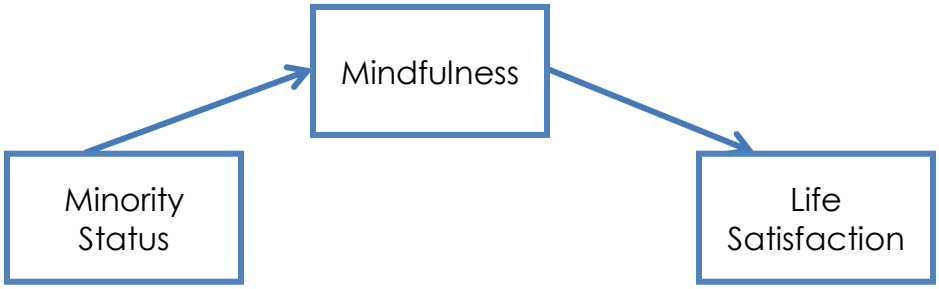

Figure 1. Mindfulness as a Mediating Variable. This figure illustrates the hypothesis that mindfulness mediates the relationship between minority status and life satisfaction

Instead, the purpose of the present study was to seek how the strength of the relationship between minority status and life satisfaction was affected by a third variable, mindfulness. This follows the definition of a moderating variable, which is a variable that has an interaction effect on the relationship between the independent and dependent variable (Baron & Kenny, 1986; Fairchild & MacKinnon, 2009). A moderator implies an interaction effect where a relationship is substantially reduced, enhanced, or reversed due to the moderating variable (Baron & Kenny, 1986).

There are three types of moderating variables: enhancing, antagonistic, and buffering. An enhancing moderator strengthens the relationship between the independent and dependent variables (e.g., as mindfulness increased the negative impact of minority status on life satisfaction would increase). An antagonistic moderator flips or reverses the relationship between the independent and dependent variable (e.g., as mindfulness increased minority status would positively correlate to life satisfaction). In this study, we hypothesized mindfulness was a buffering moderating variable. Specifically, we sought to investigate whether higher dispositional levels of acceptance or mindfulness reduced or buffered the relationship between minority status and life satisfaction (See Figure 2).

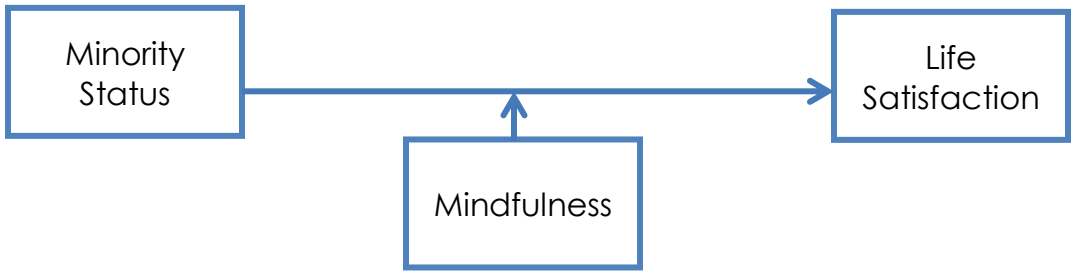

Figure 2. Mindfulness as a Moderating Variable. This figure illustrates the hypothesis that mindfulness moderates the relationship between minority status and life satisfaction

Research Design

The present study was a correlational design. Participants could not be randomly assigned to the continuous independent variables of mindfulness and acceptance as we were looking at dispositional levels.

Instrumentation

Demographic Information Questionnaire (DIQ)

This questionnaire was used in the present study to collect demographic information on the participants, including age, race, year in college, marital status, household income, and sexual orientation. Additionally, this questionnaire was designed to assess for certain participant characteristics to be controlled for during statistical analyses, including past diagnosis of disability, mental health disorder, substance abuse, chronic illness, and past victimization.

Acceptance and Action Questionnaire-II (AAQ-II)

The Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004) is a 32-item general measure of experiential avoidance. As aforementioned, experiential avoidance is described as when an individual avoids attending to or processing life's experiences. Rather, than a measure of acceptance, experiential avoidance is one's inability to accept what is occurring. Specifically, the AAQ focuses on assessing for individual's need for control (both cognitively and

emotionally), avoidance, excessive negative thinking, and inability to take needed action when facing negative experiences (Hayes et al., 2004). It is important to note the limitation that this measure and its subsequent versions operate under the assumption that experiential avoidance is the antonym of acceptance and therefore, high scores of experiential avoidance directly correspond to low levels of acceptance. Additionally, this is a measure of acceptance as well as action, rather than a pure acceptance measure. However, the AAQ-II was selected to measure acceptance because of the lack of other assessments focusing on the specific variable of acceptance.

The original AAQ was a found to significantly correlate with psychological symptoms including depression and anxiety (Hayes et al., 1994). Although the internal consistency was acceptable (α=.07) and the convergent validity was significant, both were somewhat weak (Hayes et al. 2004). This led to the revision of the AAQ and development of the AAQ-II (Bond et al., 2011), which addressed the various psychometric problems in the original measure and is discussed in the next section.

Reliability and validity. In determining whether a measure has sufficient psychometric properties it is especially important to assess how consistently the test measures the construct(s) of interest. Bond et al. (2011) analyzed the psychometric properties of the AAQ-II from 2,816 participants across six samples and found the 7 item structure of the AAQ-II to be sound; all factor loadings were significant ranging from .75 to 1.61, $p < .001$. Additionally, the authors found support for the new 7-item structure with an alpha coefficient of .84 (.78-.88). The authors also found a test-retest reliability of .81 and .79 at 3 months and 12 months, respectively. Evidence for convergent validity was found in the relationship between the AAQ-II and the Beck Depression Inventory-II (r = .71 and .70 in samples 1 and 3, respectively). Additionally, there is

some evidence for the AAQ-II's convergent validity in that the authors found moderate correlations, ranging from .59 to .63, between the AAQ-II and the White Bear Suppression Inventory (WBSI; Wegner & Zagnakos, 1994) in three different samples. Overall, the authors suggested that the AAQ-II manages to measure the same concept as the AAQ (r = .97), while improving upon the measures psychometric consistency.

Five-Facet Mindfulness Questionnaire (FFMQ)

The present study also utilized the Five-Facet Mindfulness Questionnaire (FFMQ; Baer et. al. 2006) to assess for mindfulness among participants. The FFMQ has 39 items, which were gathered by performing factor analysis on five different mindfulness questionnaires: the Mindfulness Attention Awareness Scale (MAAS; Brown & Ryan, 2003), the Freiburg Mindfulness Inventory (FMI; Buchheld, Grossman, & Walach, as cited in Baer et al., 2006), the Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith, & Allen, 2004), the Cognitive and Affective Mindfulness Scale (CAMS; Feldman, Hayes, Kumar, & Greeson, as cited in Baer et al., 2006; Hayes & Feldman, 2004), and the Mindfulness Questionnaire (MQ; Chadwick, Hember, Mead, Lilley, & Dagnan, as cited in Baer et al., 2006). The FFMQ was normed on a college population of 613 undergraduate students, the population of focus in this study.

An exploratory factor analysis of the pooled data revealed five facets: Observing, Acting with Awareness, Describing, Non-reactivity, and Non-judging. The first facet, Observing is aptly named to assess the individual's skills of observation. Does he/she notice the details of the world around him/her as he/she experiences it? The second facet, Acting with Awareness, has to do with the individual's concentration. Is he/she distracted or focused on what is happening? The third facet, Describing, focuses on whether the individual tends to verbalize their experiences or not whereas the facet of Non-reactivity deals with the individual's ability to

control their feelings. Finally, the last facet, Non-judging, identifies whether the individual tends to judge their own thoughts or emotional reactions to events or accept them. The final two facets on the FFMQ are related to the construct of acceptance in that acceptance deals with both the ability to accept openly (Non-judging) as well as refrain from ascribing evaluative labels or attempting to change the situation (Non-reactivity; Hayes et al., 1999; Hayes & Feldman, 2004, Hayes & Plumb, 2007).

The FFMQ can be scored as a whole through a total score ranging from 39-195 or by each of its five facets. Each facet contains 8 items. This questionnaire is designed with a 5-point Likert Scale in which participants rank answers with ranges from 1=never or very rarely true to 6=very often or always true. The present study utilized the total score as an indicator of dispositional mindfulness (Baer et. al, 2006), which is one of the targeted concepts to be measured in the study. The fact that the FFMQ provides both individual scores for each facet as well as a total score is ideal for the purposes of this study in that running a correlation analysis between the scores on the two acceptance related facets (Non-judging and Non-reactivity) and the AAQ-II could provide additional support of the AAQ-II as a valid measure of acceptance.

Reliability and validity. Baer et al. (2006) sought further validation of their five facet structure calculating the alpha coefficients for each of the five facets: Nonreactivity = .75, Observing = .83, Acting with Awareness = .87, Describing = .91, and Nonjudging = .87. Therefore, the internal consistency for the FFMQ can be described as adequate to good for each of the facets included in the structure.

A confirmatory factor analysis was then performed using a new sample of 268 participants. Once again an undergraduate college population was used. This analysis yielded the five-factor solution which accounted for 33% of the variance. Further analysis of the five

factor model produced good internal consistency with alpha values ranging from .75 to .91. Regression analysis revealed that the five factor structure seemed to hold up as factors accounted for distinct portions of the variance and were only modestly correlated ranging from .15 to .34. Additionally, four out of five facets of the FFMQ (not the Observe factor) were found to have significant incremental validity in predicting psychological symptoms (Baer et al., 2008). Another confirmatory factor analysis conducted by Baer and colleagues (2008) once again supported the hierarchical model of the FFMQ and the five factors as indicators of mindfulness.

Additionally, a study by Christopher, Neuser, Miachael, and Baitmangalkar (2012) further supported the five factor structure of the FFMQ in a college student population. A confirmatory factor analysis of the data collected from 349 participants found the model had a good fit to the data, producing significant factor loadings. Moreover, the authors found good convergent and discriminative validity. The study also revealed evidence for adequate internal consistency with Cronbach alpha's ranging from .86 to .93 (Christopher et al., 2012).

Satisfaction with Life Scale (SWLS)

The present study measured life satisfaction using the Satisfaction with Life Scale (SWLS; Diener, Emmons, & Larsen, 1985). The SWLS is a 5-item measure that targets one's overall satisfaction with the quality of their life. Since this study sought to evaluate differences in perceived overall quality of life rather than investigate the determinants of quality of life, the SWLS was viewed as most appropriate. All 5-items of the measure are answered according to a Likert Scale ranging from 1 (strongly disagree) to 7 (strongly agree). The SWLS was developed as an appropriate measure for people of all ages and has been used with numerous different populations (Pavot & Diener, 2008).

Reliability and validity. During the initial creation and evaluation of the SWLS measure, Diener, Emmons, and Larsen (1985) found some evidence of high internal consistency with an alpha coefficient of .87 yielding a single factor which accounted for 66% of the variance. The authors also found high test-retest reliability (.82) and moderate to high convergent validity, which is similar to the 1-month test-retest reliability coefficient of .80 found by Steger, Frazier, Oishi, and Kaler (2006). Moreover, these findings are consistent with later examinations of the psychometric properties of the SWLS. For example, a 1993 study by Pavot and Diener found alpha coefficients ranging from .79 to .89, providing further evidence for the internal consistency of the measure. Additionally, the authors found modest to moderate correlations to other well-being constructs, including the QOLI, indicating evidence for the convergent validity of the measure. The authors also found evidence for the discriminant validity of the SWLS in its lack of correlation to emotional well-being measures (i.e., affect intensity).

Power Analysis

The present study requires several statistical analyses which are discussed in greater detail later in this chapter, including three ANCOVA calculations, two bivariate correlation calculations, and two hierarchical regression analyses. Using the program G*Power 3.1.3 (Faul et al., 2007) *a priori* power analyses were conducted to determine the highest number of participants needed to conduct the various statistical analyses for the present study's research hypotheses. The power calculations for the two research questions that produced the highest number of required participants are described herein.

The first hypothesis of the present study's first research question, sought to investigate the relationship between race and life satisfaction. This research question involved comparing life satisfaction across five racial/ethnic groups: White/Non-Hispanic, Hispanic/Latino,

Asian/Pacific Islander, Black/African American/Afro-Caribbean/African, and Other, controlling for income, victimization, and health status. For the power calculation a medium effect size was sought, $d = .25$ and a was set to .05. The G*Power *a priori* power analysis indicated that for an ANCOVA with a degree of freedom of four and three covariates, a medium effect size of .80 could be achieved with a sample of $N = 196$. An *a priori* power analysis was also conducted for a hierarchical multiple regression with a medium effect size $f^2 = .15$ and $\alpha = .05$. Results indicated a power of .80 can be achieved with a sample of $N = 118$. The ANCOVA yielded the highest N for sufficient power and therefore was used to identify the present study's required sample size.

Population

Participants in the present study were sampled from a non-clinical student population from two large southeastern universities. Participants ranged in age from 18-25 years old. Individuals older than 25 and younger than 18 were excluded from participating in the study, so as to specifically focus on the young adult population. Young adult college students were the population of interest in this study and therefore, results may not be generalizable to the broader population. Participants were also asked questions to indicate whether they had been diagnosed with mental illness, disability, substance abuse disorder, have history of victimization, or had a documented disability as well as their yearly household income. The literature suggests that these variables have a strong relationship with life satisfaction, and thus needed to be controlled for statistically. The variables of mental health, substance abuse, disability, and chronic illness were collapsed into an overarching variable labeled "health status".

College students from two large southeastern universities participated in the present study during Summer and Fall 2014 ($N = 318$). All participants, whether recruited on-line or in-person

completed the same survey form, which included the Demographic Information Questionnaire (DIQ; Appendix D), Acceptance and Action Questionnaire-II (AAQ-II; Appendix E), Five-Facet Mindfulness Questionnaire (FFMQ; Appendix F), and Satisfaction With Life Scale (SWLS; Appendix G). Data from nine participants were not included in the data analysis as not all questions on the measures were answered. Thus, the total score of the measures would be incorrectly calculated for these nine participants. Further explanation of the treatment of missing data is explained in Chapter 4. Participation was voluntary and based on a sample of convenience. All data were collected during July and September 2014.

Procedures

Prior to data collection, approval for the use of human subjects for the present research study was obtained through the University's Institutional Review Board (IRB), as well as through a second University's Counseling and Psychological Services Research Committee. Both a paper form and an online survey were constructed to measure the demographics, dispositional mindfulness, dispositional acceptance, and life satisfaction of participants via the empirically validated measures of acceptance (Hayes et al., 2004), mindfulness (Baer et al., 2006), and life satisfaction (Diener, Emmons, & Larsen, 1985) aforementioned. Data was collected through the online survey management system "Qualtrics" (Qualtrics, Provo, UT).

Participants were recruited via three different methods. Firstly, at one southeastern university participants were recruited via the College of Education (COE) Research Pool where student participants were offered course credit in an identified course in exchange for their participation. A total of 862 students were registered in the COE subject pool and had access to the web link for the present study. Response rate was poor (8%), as only 70 participants were gathered via this method. Also, at this same university, participants were recruited via e-mail

(See Appendix H) sent to students in LGBTQ-focused registered student organizations (RSO's) on campus, in order to increase the number of participants whom identified as LGBQ. Specifically, students listed as members of Gays, Lesbians, and Allies Advancing Medicine (GLAAM) and OUTLaw were e-mailed. Participants who were recruited via e-mail were eligible to be entered into a raffle for a $50.00 Visa card as incentive. RSOs that were affiliated with racial and gender minorities were not targeted as originally proposed because the other two methods of sampling resulted in large proportions of participants from these minority groups. Approximately 114 students received recruitment e-mails, however response rate was poor (17.4%) as only 20 participants were gleaned from this recruitment method and several did not identify as LGBQ.

Participants recruited via e-mail and the COE Subject Pool digitally signed the online consent form (Appendix C) by checking yes or no. Participants who did not agree to the informed consent were redirected to a page thanking them and providing primary investigator contact information if they had any further questions. Participants who agreed to the informed consent were directed to the survey page where they were asked to complete the questionnaires included in the study. Participants were informed they could discontinue participation at any time during the study.

In order to increase the number of racial and sexual minorities who participated in the study, participants were recruited at a southeastern university with an extremely diverse population. At this institution, 228 participants were recruited during a promotional event for the university's counseling center, where individuals participated in exchange for a free slice of pizza and counseling center giveaways (i.e., counseling center pens and highlighter tabs). Promotion for the university counseling center was conducted following student participation in

the present study, as students were offered promotional pamphlets and could ask questions about CAPS services as desired. Almost all of the participants who approached the table agreed to participate. The recruitment table for the present study was the only table soliciting student participation during the three days that the promotional event took place.

All the participants were assessed with all of the measures presented in the same order. COE participants were not asked for any names or other identifying information. Upon completion of the survey they were redirected to a link where they put in identifying information in order to be awarded course credit. This process was controlled by the COE subject pool administrator and names were in no way attached to results, thereby protecting participant anonymity. Participants recruited via e-mail were invited to provide their e-mail address at the end of the survey in order to be entered into a raffle for a $50.00 Visa card. Once participation was verified, e-mail addresses were removed from the database in order to protect participant anonymity.

For participants who were recruited via in-person tabling, participants first signed an informed consent document (Appendix B) before being given the survey separately. The paper version of the survey did not request any name or identifying information, and the completed surveys were kept separate from informed consent forms, therefore protecting participant's anonymity. Participants were directed to fill out all survey questions. After survey completion, participants were offered a free slice of pizza and/or a counseling center promotional item (pen or highlighter tabs). This portion of data collection was sponsored by the university's Counseling and Psychological Services (CAPS).

Research Questions and Data Analyses

Data Collection

Data was collected through either the Qualtrics (Qualtrics, Provo, UT) survey management tool or through distribution of paper versions of the anonymous survey, which were then transcribed into the online survey management tool by the primary investigator. All data was then downloaded in password protected format and converted to SPSS (Statistical Package for the Social Sciences; IBM Corp., 2013) version 22.0 for data analysis.

Descriptive Data

Descriptive data was collected so as to accurately describe the population from which the results of the study were gleaned. This data also informed the limits of generalizability of the study's findings. Data on the gender, race/ethnicity, age, year in school, marital status, and sexual orientation of the participants in the study were collected. This information was also needed in order to accurately analyze the data across minority and majority group membership. Data was also collected on income, prior victimization, disability, prior mental health diagnosis, prior substance abuse diagnosis, and chronic illness diagnosis. Data on disability, mental health, substance abuse, and chronic illness were collapsed into an overarching variable labeled "health status".

Preliminary Analyses

All data were analyzed using SPSS. After descriptive statistics were conducted, an internal consistency analysis was performed on all measures used in this study. Additionally, a correlational analysis was conducted to investigate the nature of the relationship between the FFMQ facets of Non reactivity and Non judge and the AAQ-II. This analysis was conducted to address the concern that the AAQ-II measures experiential avoidance and treats this variable as

the antonym of acceptance, wherein high scores on the AAQ-II suggest low levels of acceptance. A correlation to the acceptance related facets on the FFMQ (non-judging and non-reactivity) was conducted to address this assumption.

Research Question 1

The first research question in this study explored the relationship between life satisfaction and minority group status. Specifically stated, the first research question addressed the following: What is the relationship between status as a minority (racial, gender, and sexual) and life satisfaction? The hypothesis for this research questions was that minorities would endorse a significantly lower life satisfaction as measured by the SWLS than individuals belonging to respective majority groups. In addition, it was hypothesized that this relationship would exist irrespective of type of minority group. Therefore, it was hypothesized racial, gender, and sexual minorities would all endorse lower life satisfaction than the respective majority.

To answer this question, three separate ANCOVA analyses were conducted. The first ANCOVA was conducted with a categorical independent variable of race across five groups (White/Non-Hispanic, Black/African American/Afro-Caribbean/African, Latino/Hispanic, Asian/Pacific Islander, and Other). Native American was not included as a group because no participants identified themselves as such, despite being one of the choices for selection. The ANCOVA also included 3 covariates: income, victimization, and health status, as well as a continuous dependent variable of life satisfaction. A second ANCOVA was conducted with the categorical independent variable of gender across two groups (male/female), a continuous dependent variable of life satisfaction, and once again the three aforementioned covariates. Transgender was not included as a group as this research question only investigates gender differences between males and females. The third ANCOVA analysis involved the categorical

independent variable of sexual orientation across two groups (heterosexual/LGBQ) and a continuous dependent variable of life satisfaction, once again controlling for income, victimization, and health status.

Research Question 2

This study's second research question investigated the relationship between mindfulness and life satisfaction. Specifically stated, what is the relationship between mindfulness and life satisfaction? The hypothesis for this research question was that mindfulness would be significantly positively related to life satisfaction. Therefore, individuals with higher dispositional levels of mindfulness would endorse higher life satisfaction irrespective of descriptive factors. Both mindfulness and life satisfaction were measured as continuous variables using total scores on the FFMQ and SWLS measures, respectively. Subsequently, a correlation analysis was conducted looking at the nature of the relationship between the two continuous variables.

Research Question 3

Similarly, research question three focused on the relationship between the two continuous variables of life satisfaction and acceptance. Specifically stated, is acceptance positively related to life satisfaction? This study sought to look at the concept of acceptance as a construct separate from mindfulness and see whether it significantly related to life satisfaction. It was hypothesized that acceptance would be positively correlated to life satisfaction. Since the present study utilized total scores on the AAQ-II, which measures the absence of acceptance (Hayes et al., 2004), it was hypothesized that scores on the AAQ-II would negatively correlate to life satisfaction, wherein individuals with higher scores on the AAQ-II would endorse lower life satisfaction than those evidencing low scores on the AAQ-II. Once again a correlational analysis

was conducted to investigate the relationship between the continuous variables of life satisfaction and acceptance.

Research Question 4

The fourth research question of this study asked: Does mindfulness moderate the relationship between minority status and life satisfaction? This question investigated whether the relationship between mindfulness and life satisfaction was significant to the degree that it moderated the relationship between minority status and life satisfaction. Statistical analysis for this research question included a hierarchical multiple regression analysis. This analysis focused on three categorical independent variables of gender (male/female), Race (White/ Black/African American/Afro-Caribbean/African, Latino/Hispanic, Asian/Pacific Islander, Other), and sexual orientation (heterosexual/LGBQ), a continuous dependent variable of life satisfaction, and mindfulness as the moderator. Once again income, victimization, and health status were controlled for by entering them as covariates. We sought to investigate the relationship between minority status and life satisfaction and to see whether this relationship changed as dispositional levels of mindfulness changed. Statistical analysis involved a regression model whereby the control variables of income, victimization, and health status were entered as covariates in block one, gender (male/female), Race (White/ Black/African American/Afro-Caribbean/African, Latino/Hispanic, Asian/Pacific Islander, Other), and sexual orientation (heterosexual/LGBQ) and mindfulness were entered as predictor variables of life satisfaction in block two. It was hypothesized that analysis would reveal that both the main effects for race, gender, sexual orientation, and mindfulness would be significant as well as the model (R^2) change. Next the interaction effect (mindfulness x gender), (mindfulness x orientation), and (mindfulness x race) with four dummy variables were added to the previous model as the third block. Both the R^2 change and effect of the new interaction term should be significant if moderation is occurring.

Research Question 5

The final research question of this study was similar in structure to research question 4: Does acceptance moderate the relationship between minority status and life satisfaction? Once again it was hypothesized that acceptance would act as a moderating variable in that minorities with higher levels of acceptance would endorse higher life satisfaction than minorities lacking in acceptance. A hierarchical multiple regression was conducted in the same manner as in the analysis for research question number four to analyze these relationships.

CHAPTER 4

RESULTS

This chapter focuses on reporting the findings generated from the statistical analyses conducted in conjunction with the research questions and hypotheses of the present study.

Analysis of Missing Data

As aforementioned in Chapter 3, the present study initially collected data on 318 participants. During data cleaning, data from nine participants were removed from the data set due to failure to complete entire measures included in the survey. In order to determine whether there was systematic patterns in the missing data, all missing data was coded as missing with the value "-999". An identifiable pattern was not found, suggesting missing data was random in nature. This is important, in that given the small amount of missing data and lack of pattern, it is unlikely that a list-wise deletion strategy would skew the results or significantly reduce the study's statistical power (Baraldi & Enders, 2010). A frequency analysis of missing data revealed that of the 309 remaining participants, eight more participants failed to respond to one or more of eleven questions on the FFMQ measure. Given that the present study used the total score for the FFMQ to measure mindfulness, these eight participants were removed from all statistical analyses that focused on mindfulness (RQ 2 & 4) using a list-wise deletion strategy, leaving a sample size of $n = 301$ for these research questions. Data from 309 participants was used for statistical analyses in conjunction with research questions 1, 3, and 5, as they did not utilize data from the FFMQ. For each variable of interest, the proportion of missing data is provided in Table 1.

Table 1
Missing Data Frequencies

	f	%
AAQ-II	0	0
FFMQ	11	3.3
SWLS	0	0
Gender	0	0
Race	0	0
Orientation	0	0
Illness	5	1.6
Substance	2	.6
Disability	1	.3
Income	0	0
Year	1	.3
Victimization	1	.3
Marital Status	1	.3
Mental Health	0	0

Note: 8 participants were excluded for all analyses involving the FFMQ due to missing responses on 11 FFMQ questions

Population Characteristics

The demographic data from the present study is detailed in Table 2. The mean age was 20.6 years (range = 18 - 25, *SD* = 2.38). Of the 309 participants, the sample distribution was fairly even regarding gender, with 42.1% males, 57.3% females, and .01% transgender. Due to low initial response from individuals who identified as LGBQ, participants were recruited by e-mailing the survey link to students who were listed as members of Registered Student Organizations allied and affiliated with the LGBTQ community. Sexual orientation was reported

as heterosexual (89.3%) and LGBQ (15.3%). Specifically, 3.6% identified as gay, 1% lesbian, 3.9% bisexual, and 2.3% as questioning.

In order to increase the probability of capturing a racially diverse sample, participants were recruited from a second southeastern university with a highly racially diverse student population. The majority of racial minority participants included in this study, were recruited from this second diverse university, whereas, the majority of the White/Non-Hispanic participants included in the present study were recruited from a southeastern university with a predominantly White student population. The possible implication of this recruitment method is discussed in Chapter 5.

Participants reported race/ethnicity as White/Non-Hispanic (25.9%), Latino/Hispanic (45.3%), Black/African American/Afro-Caribbean/African (20.7%), Asian/Pacific Islander (4.2%), and Other (3.9%). None of the participants in the sample identified as Native American. The participants who indicated Other specified the following race/ethnicities: Indian, Indian/Black, Hispanic/Black, Hispanic/Arab, Israeli, "mixed", White/Hispanic, and Asian/Black.

Additionally, participants represented a range of yearly household incomes reporting $30,000 or below (33%), $31,000-$50,000 (22.3%), $51,000-$100,000 (27.2%), $101,000-$200,000 (4.5%), and above $200,000 (3.6%). In terms of year in school, participants identified as Freshman (26.5%), Sophomore (15.9%), Junior (27.5%), Senior (22.3%), and Graduate Students (7.4%). Regarding marital status, the majority of participants identified as Single (94.8%), followed by Cohabiting (2.9%), Married (1%), Divorced (.6%), and Separated (.3%). It was also of interest to identify how many of the participants included in the present study reported membership in multiple minority groups. The gender and racial distribution of the

LGBQ participants in the present study can be seen in Table 3. Gender distribution was pretty even with 15 LGBQ participants identifying as male and 16 as female.

Table 2
Sample Characteristics with Frequencies and Percentages

Variable	Frequency = *n*	Percent %
Location		
Non-Miami	229	74.1%
Miami	80	26.9%
Gender		
Female	177	57.3%
Male	130	42.1%
Transgender	2	0.01%
Sexual Orientation		
Heterosexual	276	89.3
Bisexual	12	3.9
Gay	11	3.6
Questioning	7	2.3
Lesbian	3	1.0
Race		
Latino/Hispanic	140	45.3
White/Non-Hispanic	80	25.9
Black/African American/Afro-Caribbean/African	64	20.7
Asian/Pacific Islander	13	4.2
Other	12	3.9
Age		
18	76	24.6

Table 2 continued

Variable	Frequency = *n*	Percent %
Age		
19	48	15.5
20	54	17.5
20	54	17.5
21	32	10.4
22	32	10.4
23	18	5.8
24	14	4.5
25	35	11.3

In regards to race/ethnicity, LGBQ identified participants were primarily Hispanic/Latino (*n* = 16), followed by Black/African American/Afro-Caribbean/African (*n* = 7), White/Non-Hispanic (*n* = 6), Asian/Pacific Islander (*n* = 3), and Other (*n* = 1). Therefore, 27 of the 33 participants whom identified as sexual minorities in the present study also identified as racial minorities. Further implications of this are discussed in Chapter 5.

Table 3
Gender and Racial Distribution of LGBQ Participants

	Male	Female	Transgender	1	2	3	4	5
Lesbian	0	3	1	0	2	0	1	0
Gay	9	1	1	2	4	1	4	0
Bisexual	2	9	0	2	8	1	1	0
Questioning	4	3	0	3	2	1	0	1

Note: 1= Black/African American/Afro-Caribbean/African, 2 = Hispanic/Latino, 3= Asian/Pacific Islander, 4= White/Non-Hispanic, 5 = Other.

Preliminary Analyses

Instrument Reliability Analysis

Reliability analyses were conducted to measure internal consistency for the FFMQ, SWLS, and AAQ-II. Analyses revealed high internal consistency for all measures with Chronbach's a = .852 (FFMQ), Chronbach's a = .831 (SWLS), and Chronbach's a = .890 (AAQ-II). Additionally, the SWLS coefficient was comparable to previous empirical findings (Larsen, 1985), as was the FFMQ coefficient (Baer et al., 2006; Christopher et al., 2012), and AAQ-II coefficient (Bond et al., 2011).

Additionally, the present study utilized the AAQ-II, treating this measure of experiential avoidance as the antonym of acceptance. Therefore, a correlational analysis was conducted to investigate the nature of the relationship between the FFMQ acceptance related facets of Non reactivity and Non judge and the AAQ-II. An alpha level of .05 was used for all statistical tests. Findings suggested evidence for convergent validity, with a Pearson correlation indicating a significant negative relationship (r = -.537, p < .001). These findings support the present study's use of the AAQ-II as a measure of lack of acceptance, wherein high scores on the AAQ-II are treated as indicative of low dispositional acceptance.

Descriptive Statistics

Prior to investigating the research questions of the present study, descriptive statistics were calculated for acceptance, mindfulness, and life satisfaction, as measured by the AAQ-II, FFMQ, and SWLS, respectively (See Table 4). Total scores for acceptance were calculated by summing each participant's responses on the AAQ-II. It is important to note that higher scores on the AAQ-II were indicative of lower levels of acceptance. Participants in the present study reported a mean total score of 19.20 (SD = 8.82). Mean responses ranged from "never true" to "sometimes true", indicating high to moderate levels of reported acceptance for the participants

in the sample. Total scores for life satisfaction were calculated by summing participant's responses on the SWLS. The Mean for the 5-item life satisfaction measure was 23.65 (*SD* = 6.27). Mean scores ranged from "slightly disagree" to "agree". Overall, the means indicate a moderate degree of reported total life satisfaction for the college students in the sample. Similarly, although the FFMQ can be scored for each of its five facets, the present study utilized total scores which were calculated by summing each participant's responses to the 39 item measure. The mean total score for the mindfulness measure was 126.92 (*SD* = 17.29). Mean scores indicated a response of "sometimes true", therefore suggesting a moderate degree of mindfulness for the participants in the sample.

Table 4
Descriptive Statistics for Primary Variables

Variable	*N*	Range	Mean	*SD*	Skewness	Kurtosis
AAQ-II	309	7-47	19.20	8.82	.72	.01
FFMQ	301	82-184	126.92	17.29	.33	.88
SWLS	309	5-35	23.65	6.27	-.49	-.08

Note: Means and Standard Deviations were calculated post list-wise deletion.

It was also of interest to explore whether mindfulness appeared to differ between sub-groups of gender, race, and sexual orientation (Table 5). Descriptive statistics showed that mindfulness tended to be slightly higher for females (*M* = 127.26, *SD* = 17.69) than males (*M* = 126.68, *SD* = 16.83). Observation of means also suggested that mindfulness was higher for participants who identified as heterosexual (*M* = 127.21 , *SD* = 17.04) than for participants who identified as LGBQ (*M* = 124.17, *SD* = 19.57). In terms of race/ethnicity, mean levels of mindfulness was highest for the Other group (*M* = 136.20, *SD* = 30.73), followed by Black/African American/Afro-Caribbean/Africans (*M* = 128.98, *SD* = 16.02), Hispanic/Latino's

(*M* = 127.46, *SD* = 16.21), White/Non-Hispanics (*M* = 124.62, *SD* = 17.71), and Asian/Pacific Islanders (*M* = 117.42, *SD* = 14.79).

Table 5
Descriptive Statistics for Mindfulness by Gender, Sexual Orientation, and Race/Ethnicity as Measured by the FFMQ

Variable	*N*	Range	Mean	*SD*	Skewness	Kurtosis
Gender						
Male	126	88-179	126.68	16.83	.69	1.28
Female	173	82-184	127.26	17.69	.09	.72
Sexual Orientation						
LGBQ	29	88-177	124.17	19.57	.48	.54
Hetero	272	82-184	127.21	17.04	.33	.99
Race/Ethnicity						
African American	62	103-179	128.98	16.02	.64	.37
Hispanic	138	83-184	127.46	16.21	.45	1.54
Asian	12	94-146	117.42	14.79	.30	-.19
Other	10	101-179	136.20	30.73	.43	-1.61
White	79	82-168	124.62	17.71	-.36	.07

Note: Means and Standard Deviations were calculated post list-wise deletion.

Correlations between the variables of interest in the present study were also calculated and intercorrelations are presented in Table 6. Significant correlations were found between life satisfaction and acceptance and life satisfaction and mindfulness, which are discussed in greater detail below. Additionally, total scores on the FFMQ and the AAQ-II significantly correlated,

Pearson's $r(309) = -.53$, $p < .001$, two tailed. Interestingly, this correlation is almost the same as the aforementioned correlation between the AAQ-II and the two factors on the FFMQ designed to measure acceptance, non-judge and non-react. This finding is interesting because it suggests that the correlations between the AAQ-II and the acceptance-related factors on the FFMQ is similar to the correlation between the AAQ-II and total score on the FFMQ, which includes non-acceptance related factors (i.e., Observing, Acting with Awareness, and Describing). This calls into question how different these two concepts are and what specific differences the factors of Observing, Acting with Awareness, and Describing add to the overall concept of mindfulness. However, there are differences in the relationship between life satisfaction and total score on the FFMQ and total score on the AAQ-II, respectively, which are discussed below. Finally, the intercorrelation matrix shows a significant relationship between gender and race, which suggests the sample of racial minorities, may have predominantly been one gender.

Table 6
Intercorrelations among Primary Variables

	AAQ-II	Life Satisfaction	Mindfulness	Gender	Sexual Orientation	Race
AAQ-II	___					
Life Satisfaction	-.40**	___				
Mindfulness	-.53**	.30**	___			
Gender	.10	.04	.02	___		
Sexual Orientation	-.11	.05	.04	.02	___	
Race	.09	.08	-.00	.12*	.07	

*Note: ** = correlation is significant at the .01 level * = correlation is significant at the .05 level*

Primary Analyses

Research Question 1

Do racial, gender, and sexual minorities have lower life satisfaction than respective majority groups?

Therefore, this research question investigates three separate hypotheses:

H 1: Participants who identify as racial minorities (Black/African American/Afro-Caribbean/African, Latino/Hispanic, Asian/Pacific Islander, and Other) will report significantly lower life satisfaction than White participants.

In order to examine the effect of racial minority group membership on life satisfaction, an analysis of covariance (ANCOVA) was performed with race as an independent variable, life satisfaction as the dependent variable and three covariates: income, victimization, and health status (See Table 7). Health status was used to encompass a participant's positive endorsement in any of the following categories: mental health, substance abuse, chronic illness, or disability diagnosis. Individuals who failed to respond to covariate related questions were excluded from all analyses. The Levene's Test calculation was not significant ($p = .615$) which indicates the group variances are equal, thereby meeting the assumption of homogeneity of variance.

The ANCOVA produced significant main effects for two of the covariates included in the analysis: health status $F(1, 292) = 4.07$, $p = .045$ and income $F(1, 292) = 12.41$, $p < .001$. Additionally, the ANCOVA produced an overall significant main effect for race $F(4, 292) = 3.22$, $p = .013$, which suggests at least two races significantly differed in life satisfaction. Observation of means revealed the life satisfaction of participants was highest for Hispanic/Latino ($M = 24.67$, $SE = .50$), followed by White/Non-Hispanic ($M = 24.15$, $SE = .68$),

Other (*M* = 23.61, *SE* = 1.86), Asian Pacific/Islander (*M* = 22.10, *SE* = 1.64), and Black/African American/Afro-Caribbean/African (*M* = 21.54, *SE* = .78).

Table 7
Analysis of Covariance Summary: Results for Life Satisfaction by Race Controlling for Victimization, Income, and Health Status

Source	*SS*	*Df*	*MS*	*F*
Victimization	131.54	1	131.54	3.81
Health Status	140.54	1	140.54	4.07*
Income	428.53	1	428.53	12.41**
Race	444.89	4	111.22	3.22*
Error	10081.25	292	34.53	

Note: R^2 = .125, Adj. R^2 = .104, $p < .05$*, $p < .01$**. *Health Status refers to endorsement of a mental health or substance condition, disability, or chronic illness.*

A post hoc analysis of pairwise comparisons controlling for the aforementioned covariates (See Table 8) found that the life satisfaction of Asian/Pacific Islander was not significantly different than any of the other racial/ethnic groups: Black/African American/Afro-Caribbean/African (*p* = .76), Hispanic/Latino (*p* = .13), White/Non-Hispanic (*p* = .25), or Other (*p* = .54). The Other group also did not significantly differ from the other racial/ethnic groups: Black/African American/Afro-Caribbean/African (*p* = .31), Hispanic/Latino (*p* = .58), and White/Non-Hispanic (*p* = .79). Also, the White/Non-Hispanic group did not significantly differ from the Hispanic/Latino group (*p* = .54). However, the Black/African American/Afro-Caribbean/African group did significantly differ from the Hispanic/Latino (*p* = .001) and White/Non-Hispanic (*p* = .013) groups. These results suggest that college students who are Black, African American, Afro-Caribbean, and African have significantly lower life satisfaction than Whites and Hispanic/Latinos in this sample.

Table 8
Multiple Comparisons and Mean Differences in Life Satisfaction by Race Controlling for Victimization, Income, and Health Status

Comparison	Mean Difference	*SE*	CI
Asian vs. Black	.56	1.82	-3.01, 4.14
Asian vs. Hispanic	-2.57	1.71	-5.93, .79
Asian vs. Other	-1.51	2.47	-6.38, 3.36
Asian vs. White	-2.04	1.77	-5.53, 1.44
Black vs. Hispanic	-3.14**	.92	-4.95, -1.32
Black vs. Other	-2.07	2.02	-6.05, 1.91
Black vs. White	-2.61*	1.05	-4.67, -.55
Hispanic vs. Other	1.06	1.93	-2.73, 4.86
Hispanic vs. White	.53	.85	-1.15, 2.20
Other vs. White	-.54	1.98	-4.44, 3.37

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

H 2: Female participants will report significantly lower life satisfaction than male participants.

A second ANCOVA was calculated on the relationship between gender and life satisfaction, controlling for income, health status, and victimization (See Table 9). Individuals who identified as transgender were excluded from analysis as the present study focused on differences between males and females. Additionally, only 2 participants who identified as transgender participated in the present study. A Levene's Test calculation was not significant, ($p = .291$), indicating the group variances are equal, thereby meeting the homogeneity of variance assumption. The main effect for gender was not significant, $F(1, 293) = .16$, $p = .693$. This finding suggests that males

and females did not significantly differ in life satisfaction after controlling for income, health status, and victimization. However, significant main effects were produced for two of the covariates included in the ANCOVA: victimization $F(1, 293) = 4.54$, $p = .034$ and income $F(1, 293) = 15.01$, $p < .001$. Health status was not found to be a significant covariate for life satisfaction.

Table 9
Analysis of Covariance Summary: Results for Life Satisfaction by Gender Controlling for Victimization, Income, and Health Status

Source	*SS*	*Df*	*MS*	*F*
Victimization	162.87	1	162.87	4.54*
Health Status	104.13	1	104.13	2.90
Income	538.43	1	538.43	15.01**
Gender	5.62	1	5.62	.16
Error	10507.52	293	35.86	

Note: $R^2 = .086$, Adj. $R^2 = .073$, $p < .05$*, $p < .01$**. *Health Status refers to endorsement of a mental health or substance condition, disability, or chronic illness.*

H 3: Participants who identify as LGBQ will report significantly lower life satisfaction than participants who identify as heterosexual.

A third ANCOVA was calculated to investigate the relationship between sexual orientation (heterosexual/LGBQ) and life satisfaction, controlling for income, health status, and victimization (See Table 10). Individuals who identified as lesbian, gay, bisexual, and questioning were entered as one group (LGBQ) due to small sample size ($n = 33$). The assumption of homogeneity of variance was met as the Levene's test was not significant, ($p = .971$). Two of the covariates included in the analysis: victimization $F(1, 295) = 4.31$, $p = .039$ and income $F(1, 295) = 15.94$, $p < .001$, were significant. Health status was not found to be a significant covariate for life satisfaction. The calculated main effect for sexual orientation was

not significant, $F(1, 295) = .17$, $p = .680$. This suggests that individuals who identified as LGBQ did not report significantly different life satisfaction than individuals who identified as heterosexual in this sample.

Table 10
Analysis of Covariance Summary: Results for Life Satisfaction by Sexual Orientation Controlling for Victimization, Income, and Health Status

Source	*SS*	*Df*	*MS*	*F*
Victimization	153.56	1	153.56	4.31*
Health Status	108.09	1	108.09	3.03
Income	568.38	1	568.38	15.94**
Orientation	6.10	1	6.10	.17
Error	10520.04	295	35.66	

Note: $R^2 = .086$, Adj. $R^2 = .074$, $p < .05$*, $p < .01$**. *Health Status refers to endorsement of a mental health or substance condition, disability, or chronic illness.*

Additional data analyses. While not originally specified in the present study's research questions, post-hoc analyses were conducted to further investigate the findings for the first research question in the present study. Previous research has found Hispanic/Latinos have significantly lower life satisfaction than Whites (Barger, Donoho, & Wayment, 2009). However, the results of the ANCOVA calculated for the relationship between race and life satisfaction suggested that life satisfaction was highest for Hispanic/Latinos. Given that these results were unanticipated and contradictive of previous research, it was of interest to explore possible reasons for this finding. It was possible that Hispanic/Latinos reported the highest levels of life satisfaction similar to levels of satisfaction reported by the White/Non-Hispanic participants in the present study, because most of the Hispanic/Latino participants were drawn from Miami, where Hispanic/Latinos reside as the racial majority. In order to examine this possibility we investigated how life satisfaction differed between the Hispanic/Latino participants who lived in

Miami versus the Hispanic/Latino participants who lived Northern Florida. An independent-samples *t*-test was conducted to compare life satisfaction in Miami Hispanics and Non-Miami Hispanics. There was not a significant difference in life satisfaction scores for the Miami Hispanic ($M = 24.58$, $SD = 6.11$) and Non-Miami Hispanic ($M = 26.10$, $SD = 4.13$) groups, $t(138) = -.86$, $p = .391$. A Levene's Test indicated that the assumption of homogeneity of variance was met ($p = .066$). Therefore, in general it was found that the life satisfaction of Miami and Non-Miami Hispanics did not differ significantly. However, it is important to note that the sample size of Non-Miami Hispanics was small ($n = 13$) and therefore the hypothesis that life satisfaction is significantly higher for Miami Hispanic/Latinos than Non-Miami Hispanic/Latinos may be justified, but under-powered to find statistical significance.

Additionally, a post-hoc analysis was conducted to further investigate the findings of the second hypothesis for the study's first research question, which suggested women and men did not significantly differ in life satisfaction after controlling for income, victimization, disability, mental health, substance abuse, and chronic illness. It was of interest to determine whether male and female participants did significantly differ in life satisfaction, but that this relationship was erased after controlling for the aforementioned variables. To compare the life satisfaction of males and females without controlling for possible confounds an independent *t*-test was conducted with a categorical independent variable of gender (male/female) and a continuous dependent variable of life satisfaction. A Levene's Test indicated the assumption of homogeneity of variance was met ($p = .979$). Results revealed that total scores on the SWLS did not significantly differ for males ($M = 23.45$, $SD = 6.44$) and females ($M = 23.81$, $SD = 6.18$); $t(305) = -.50$, $p = .62$. Therefore, females did not have significantly different life satisfaction than males even without controlling for possible confounding variables.

Similarly, although not originally specified in the research questions of the present study, a post-hoc analysis to further explore group differences between LGBQ and heterosexual identified participants in life satisfaction was conducted. Given that results of an ANCOVA looking at this relationship controlling for income, disability, victimization, mental health, substance abuse, and chronic illness did not produce significant findings, it was of interest to explore whether between group differences existed prior to controlling for the aforementioned variables. However, results of an independent-samples *t*-test indicated that individuals who identified as LGBQ ($M = 23$, $SD = 6.09$) and heterosexual ($M = 23.73$, $SD = 6.29$) did not significantly differ in life satisfaction; $t(307) = -.63$, $p = .53$. Levene's test indicated assumption of homogeneity of variance was met ($p = .748$).

Research Question 2

Is mindfulness positively related to life satisfaction?

A correlational analysis was used to examine the relationship between mindfulness and life satisfaction. Out of 309 participants, 301 were used to conduct this analysis due to missing data on the FFMQ. Results from a bivariate correlation calculation indicated a significant positive relationship between mindfulness and life satisfaction, Pearson's $r(301) = .30$, $p < .001$, two tailed. This suggests that individuals who have higher dispositional mindfulness tend to have higher life satisfaction.

Research Question 3

Is acceptance positively related to life satisfaction?

A correlational analysis was used to investigate the relationship between acceptance and life satisfaction. Results from a bivariate correlation calculation indicated a significant negative relationship between scores on the AAQ-II and life satisfaction, Pearson's $r(309) = -.38$, $p <$

.001, two tailed. Given the AAQ-II is a measure of lack of acceptance (Hayes et al., 2004); this finding suggests individuals with higher levels of dispositional acceptance tend to have higher life satisfaction. Therefore, acceptance as its own construct separate from mindfulness has a significant positive relationship to life satisfaction.

Research Question 4

Does mindfulness moderate the relationship between minority status and life satisfaction?

Mindfulness was examined as a moderator of the relationship between minority status and life satisfaction, controlling for victimization, income, and health status. In order to examine this relationship a hierarchical multiple regression analysis was conducted. Statistical output for the initial model is reflected in Table 11. Out of 309 participants, 301 were used to conduct this analysis due to missing data on the FFMQ. First dummy variables were created for African American, Asian, Hispanic, and Other racial groups to account for the 5 different groups of this predictor. Inspection of multicollinearity diagnostics revealed multicollinearity concerns for the model. To resolve multicollinearity the moderator mindfulness and the other predictors in the study were centered by their means. Subsequently, the interaction terms were calculated with these centered values. After centering, multicollinearity diagnostics were once again assessed and were all within an acceptable range (i.e., 1.0-1.6; Hair, Anderson, Tatham, & Black, 1995). Additionally, the produced scatterplot and histogram for the regression equation suggests the homogeneity of variance assumption was met as was the assumption of normality.

Table 11
Hierarchical Regression Analysis for Mindfulness Controlling for Victimization, Income, and Health Status

Variable	*b*	*SEb*	*B*	*R*	R^2	ΔR^2
Step 1				.30	.09	.09**
Constant	22.29	.78				
Victimization	-1.91	.81	-.14*			
Health Status	-1.63	.93	-.10			
Income	.96	.26	.21**			
Step 2				.49	.24	.15**
Constant	22.73	.75				
Asian	-1.26	1.81	-.04			
AfricanAmer	-2.40	.98	-.16*			
Hispanic	.30	.80	.03			
Other	-2.83	2.04	-.08			
Gender	.24	.67	.02			
SexualOrientation	-.09	1.15	-.04			
Mindfulness	.13	.02	.35**			
Step 3				.50	.25	.01
Constant	22.51	.77				
Asian* mindful	-.05	.12	-.03			
AfricanAmer*mindful	-.02	.06	-.02			
Hispanic* mindful	.02	.05	.03			
Other* mindful	.03	.08	.02			
Gender* mindful	.05	.04	.07			
SexualOr*mindful	.04	.06	.04			

Note: p = .05, p = .01**. This table reflects the initial regression model before removal of variables that were not significant. Variables were centered by their means.*

In the first step of the regression, victimization, income, and health status were entered as covariates. Findings indicated at least one of the covariates accounted for a significant amount of variance in individual's life satisfaction, $R^2 = .09$, adjusted $R^2 = .09$, $F(2, 296) = 14.09$, $p < .001$. Health status was not a significant covariate and was removed from the final regression model. However, step one of the final model was still significant, $R^2 = .11$, $F(2, 296) = 11.56$, $p < .001$, wherein income, $\beta = .20$, $t(296) = 3.60$, $p < .001$ and victimization, $\beta = -.18$, $t(296) = -3.22$, $p = .001$ were significant predictors of life satisfaction.

In the second step of the regression analysis, mindfulness, gender, sexual orientation, and the four dummy variables for race were entered as predictors. Findings showed controlling for the aforementioned covariates, at least one of the predictors accounted for a significant proportion of the variance in individual's life satisfaction, $R^2 = .22$, adjusted $R^2 = .19$, $F(7, 289) = 6.88$, $p < .001$. Inspection of coefficients revealed that gender and sexual orientation were not significant predictors and, thus, were removed from the final regression model. Because the other racial groups were dummy variables, they remained in the final model despite being found to not significantly predict life satisfaction. The final regression model found that mindfulness significantly predicted life satisfaction $\beta = .31$, $t(291) = 5.96$, $p < .001$. Additionally, findings suggested that identifying as Black/African American/Afro-Caribbean/African was a significant predictor of life satisfaction, $\beta = .-.16$, $t(291) = -2.46$, $p = .015$, whereby their total score on the SWLS was found to be .16 lower than White/Non-Hispanics. Similarly, results of the final model showed identifying as Other was a significant predictor of life satisfaction, $\beta = -.13$, $t(291) = -2.32$, $p = .021$, whereby their total score on the SWLS was .13 lower White/Non-Hispanics. Overall, mindfulness and race predicted significantly over the covariate variables, R^2 change =

.13, $F(5, 291) = 9.63$, $p < .001$. These results suggest that mindfulness and race add significant predictive power beyond that contributed by victimization, mental health, and income.

In step three of the regression, the six interaction terms were added and results suggested that the interaction terms did not account for a significant proportion of the variance in individual's life satisfaction beyond that already accounted for, R^2change = .02, $F(6, 285) = 1.51$, $p = .17$. Subsequently, all interaction terms were removed from the final regression model (See Table 12). Overall, the findings indicated that mindfulness did not significantly moderate the relationship between status as a gender, racial, or sexual minority and life satisfaction.

Table 12
Final Hierarchical Regression Model for Mindfulness

Variable	*b*	*SEb*	*B*	*R*	R^2	ΔR^2
Step 1				.30	.09	.09**
Constant	22.08	.78				
Victimization	-2.52	.78	-.18**			
Income	.95	.26	.21**			
Step 2				.47	.22	.13**
Constant	22.37	.75				
Asian	-1.32	1.74	-.04			
AfricanAmer	-2.46	.98	-.16*			
Hispanic	.30	.81	.02			
Other	-4.41	1.88	-.13*			
Mindfulness	.11	.02	.31**			

Note: $p = .05$*, $p = .01$**. *This table reflects the final regression model after removal of variables that were not significant. Variables were centered by their means.*

Research Question 5

Does acceptance moderate the relationship between minority status and life satisfaction?

A hierarchical multiple regression analysis was conducted in order to investigate whether acceptance moderates the relationship between minority status and life satisfaction, controlling for victimization, income, and health status. The initial model presented with multicollinearity concerns which were resolved by centering the predicting variables by their respective means. After centering multicollinearity diagnostics were within an acceptable range (i.e., 1.0-1.7). Additionally, the produced scatterplot and histogram for the regression equation suggests the homogeneity of variance assumption was met as was the assumption of normality. The output for the initial regression model is detailed in Table 13.

Victimization, income, and health status were entered as covariates in the first step of the regression, $R^2 = .086$, $F(3, 295) = 9.27$, $p < .001$. Although health status was not a significant predictor and was removed from the final regression model, income, $\beta = .20$, $t(304) = 3.65$, $p < .001$and victimization, $\beta = -.17$, $t(304) = -3.13$, $p = .002$ were significant predictors of life satisfaction and were entered in step one of the final model, $R^2 = .08$, adjusted $R^2 = .08$ $F(2, 304) = 13.93$, $p < .001$. This indicated that as income increased so did life satisfaction. Additionally, instances of victimization were negatively related to life satisfaction. Therefore, individuals who reported past victimization, tended to report lower levels of life satisfaction. In the next step of the regression analysis, acceptance, gender, sexual orientation, and the four dummy variables for race were entered as predictors. Findings showed that even when controlling for income and victimization, at least one of the predictors accounted for a significant proportion of the variance in individual's life satisfaction, $R^2 = .24$, adjusted $R^2 = .22$, $F(7, 297) = 8.84$, $p < .001$, indicating that 24% of the variance in life satisfaction was accounted for by mindfulness, gender, sexual

orientation, and race. Gender and sexual orientation were not found to be significant predictors of life satisfaction and were removed from block two of the final regression model, $R^2 = .24$, $F(5, 299) = 12.05$, $p < .001$.

Table 13
Hierarchical Regression Analysis for Acceptance Controlling for Victimization, Income, and Health Status

Variable	*b*	*SEb*	*B*	*R*	R^2	ΔR^2
Step 1				.29	.09	.09
Constant	22.21	.78				
Victimization	-1.90	.82	-.14*			
Health Status	-1.49	.90	-.10			
Income	.98	.26	.21**			
Step 2				.50	.25	.17
Constant	22.18	.74				
Asian	-1.48	1.74	-.05			
AfricanAmer	-2.80	.97	-.18**			
Hispanic	-.37	.81	-.03			
Other	-.70	1.85	-.02			
Gender	.61	.66	.05			
SexualOrientation	-1.29	1.09	-.06			
AAQII	-.27	.04	-.39**			
Step 3				.52	.27	.02
Constant	22.29	.75				
Asian*accept	-.05	.20	-.01			
AfricanAmer*accept	.02	.11	.01			
Hispanic*accept	-.07	.09	-.05			

Table 13 continued

Variable	*b*	*SEb*	*B*	*R*	R^2	ΔR^2
Other*accept	-.09	.19	-.02			
Gender*accept	-.21	.08	-.14**			
SexualOr*accept	-.10	.11	-.05			

Note: p = .05, p = .01**. This table reflects the initial regression model before removal of variables that were not significant. Variables were centered by their means.*

Whereas, total score on the AAQ-II significantly predicted life satisfaction β = -.36, $t(299) = -6.79$, $p < .001$, it is important to note that although this statistic refers to a negative relationship, total score on the AAQ-II indicates absence of acceptance (Hayes et al., 2004). Therefore, this finding suggests higher levels of acceptance are predictive of higher life satisfaction. Also, findings identified being Black/African American/Afro-Caribbean/African as a significant predictor of life satisfaction, β = .-.19, $t(299) = -2.96$, $p = .003$, whereby their total score on the SWLS was found to be .19 lower than White/Non-Hispanics. Therefore, the AAQ-II and Black/African American/Afro-Caribbean/African group predicted significantly over and beyond the covariates of victimization, and income, R^2 change = .15, $F(5, 299) = 12.05$, $p < .001$.

In the final step of the regression model, the six interaction terms were added and results suggested that at least one of the interaction terms significantly predicted life satisfaction over and beyond the covariates and predictor variables, R^2 change = .04, $F(6, 293) = 2.42$, $p = .027$. A significant interaction was found for the interaction term for gender by acceptance, β = -.18, $t(293) = -3.29$, $p = .001$. All other interaction terms were not significant and were removed from the final regression model. Statistical output for the final regression model is reflected in Table 14. Overall, this result suggests that acceptance significantly moderated the relationship between minority status and life satisfaction, but only for gender. More specifically, acceptance was

found to be a buffering moderator wherein as individuals' dispositional acceptance increased the disparity in life satisfaction between males and females was reduced.

Table 14
Final Hierarchical Regression Model for Acceptance

Variable	*b*	*SEb*	*B*	*R*	R^2	ΔR^2
Step 1				.29	.08	.08**
Constant	22.02	.78				
Victimization	-2.48	.79	-.17**			
Income	.95	.26	.20**			
Step 2				.49	.24	.15**
Constant	22.08	.74				
Asian	-1.73	1.74	-.05			
AfricanAmer	-2.88	.97	-.19**			
Hispanic	-.34	.81	-.03			
Other	-2.38	1.73	-.07			
AAQII	-.26	.04	-.36**			
Step 3				.52	.27	.03**
Constant	22.33	.73				
Gender*accept	-.25	.08	-.17**			

Note: p = .05*, *p* = .01**. *This table reflects the final regression model after removal of variables that were not significant. Variables were centered by their means.*

CHAPTER 5

DISCUSSION

The present study investigated dispositional mindfulness and acceptance as potential moderators in the relationship between minority status and life satisfaction. Specifically, the present study examined whether mindfulness or acceptance buffered or reduced the negative impact of being a gender, racial, or sexual minority on life satisfaction. In order to investigate these questions this study first sought to examine whether gender, racial, and/or sexual minorities had significantly lower life satisfaction than males, Whites, and individuals who identified as heterosexual, respectively. Another goal of the study was to assess the relationship between mindfulness and life satisfaction, as well as acceptance and life satisfaction.

A correlational design was utilized due to inability to randomly assign participants. All 318 participants were administered a demographic questionnaire, Five-Facet Mindfulness Questionnaire (FFMQ), Acceptance and Action Questionnaire-II (AAQ-II), and the Satisfaction with Life Scale (SWLS) to assess for dispositional mindfulness, dispositional acceptance, and life satisfaction, respectively. The initial sample size of 318 was reduced to 309 using a list-wise deletion strategy due to missing data. Furthermore, an additional eight participants were removed using list-wise deletion for all analyses involving the FFMQ, due to missing items on the questionnaire which required a total score. In order to explore the first three research questions of the present study, three separate analyses of covariance (ANCOVA) and two bivariate correlation analyses were conducted. Research questions four and five were investigated through two separate hierarchical multiple regression analyses. This chapter focuses on summarizing and discussing the implications of the present study's findings related to each

research question. The present study's limitations and directions for future research are also addressed.

Discussion of Findings

Research Question 1

Three separate ANCOVA were conducted to investigate the hypothesis that the life satisfaction of gender, racial, and sexual minorities is significantly lower than males, Whites, and individuals who identify as heterosexual, respectively.

Hypothesis 1. It was hypothesized that racial minorities' life satisfaction, as measured by the total score on the Satisfaction with Life Scale, would be significantly lower than White/Non-Hispanic college students. Additionally, we anticipated that life satisfaction would be highest for White/Non-Hispanic college students. This hypothesis was only partially supported by the findings of the present study. Despite previous empirical findings that Hispanic/Latinos have significantly lower life satisfaction than White/Non-Hispanics (Barger, Donoho, and Wayment, 2009), results of the present study showed life satisfaction was highest for Hispanic/Latinos ($M = 24.61$) and that Hispanics and Whites did not significantly differ in life satisfaction. A possible explanation for this finding is that although Hispanic/Latino's are racial minorities in society, 127 of the 140 Hispanic/Latino participants included in the study were living in Miami. This is significant given that in Miami, Hispanic/Latino's comprise 65.6% of the population (U.S. Census Bureau, 2013) making them the statistical majority. Therefore, our findings may be to the product of protective factors experienced by this study's Hispanic/Latino participants being the statistical majority where they inhabit.

To investigate this speculation a post-hoc analysis was conducted to compare the life satisfaction of the 127 Hispanic/Latino participants recruited from Miami versus the 13 Non-

Miami Hispanic/Latino participants. Results of an independent-samples *t*-test were not significant and therefore, did not support this explanation. Still, the small sample size ($n = 13$) of Non-Miami Hispanic/Latino participants could potentially explain failure to find significant differences. Additionally, it is possible that no significant differences were found between the Miami and Non-Miami Hispanic participants because the Non-Miami participants could have actually been from Miami, but currently attending school in northern Florida.

Most of the empirical research has focused on significant differences between Whites and African Americans in life satisfaction (Arango-Lasprilla et al., 2009; Barger, Donoho, and Wayment, 2009; Kraus, 1993; Stock, Okun, Haring, & Witter, 1985; Williams, Yu, Jackson, & Anderson, 1997; Wilson, 2003). Therefore, the present study's findings that Black/African American/Afro-Caribbean/Africans have significantly lower life satisfaction than White/Non-Hispanics is consistent with the literature. Racial minorities have been found to significantly differ from Whites in income, mental health, disability, chronic illness, substance abuse, and victimization. Due to the fact that previous research suggests these variables are negatively related to life satisfaction, they were controlled for in the analysis. Therefore, the findings suggest that Black/African American/Afro-Caribbean/African college students have lower life satisfaction than Whites/Non-Hispanic college students and this difference cannot be attributed to these aforementioned confounding variables. One potential explanation for this finding is that racial minorities experience recurring encounters with racism at the individual, institutional, and structural levels, which may result in oppression and being ostracized from society (Jeanquart-Barone & Sekaran, 1996) that in turn negatively impacts their life satisfaction (Herek, 2000; Herek, Gillis, & Cogan, 1999; Otis & Skinner, 1996).

The fact that the Asian/Pacific Islander and Other group did not report significantly lower life satisfaction than White/Non-Hispanics may be due inadequate sample size $n = 13$and $n = 12$, respectively. Another explanation for the lack of significant difference between Whites and the other racial minorities included in this study is that it is possible that much of the disparity in life satisfaction between racial minorities and Whites is explained by negative variables that research has suggested are experienced by racial minorities at disproportionate rates including low income, chronic illness, mental health, substance abuse, victimization, and disability (Albert, 2002; Bohn, Tebben, & Campbell, 2004; Chow, Jaffe, & Snowden, 2003; Crouch, Hanson, Saunders, Kilpatrick, & Resnick, 2000; Field & Caetano, 2004; Grodsky & Pager, 2001; Hawkins et al., 2010; Jasinski & Dietz, 2003; Kalof, 2000; Lindholm & Wiley, 1986; Lodico, Gruber, & DiClemente, 1996; Maker, Shah, & Agha, 2005; Radigan, 2004; Scher, Forde, McQuaid, & Stein, 2004; Semyonov & Lewin-Epstein, 2009; Taylor, Esbensen, Peterson, & Freng, 2007; Ullman & Filipas, 2005a; Wilson, 2003). Therefore, it is possible that controlling for these variables negated any significant difference in life satisfaction between these racial minority groups and Whites. However, it is also possible that the life satisfaction of college students who identify as Asian/Pacific Islander and Other does not in reality significantly differ in life satisfaction from Whites/Non-Hispanics.

Black/African American/Afro-Caribbean/African college students were also found to have significantly lower life satisfaction than Hispanics/Latino college students. These findings may also possibly be explained by the aforementioned fact that almost all of the Hispanic/Latino participants included in the study resided where they represented the statistical racial majority, and therefore may have experienced protective factors typically afforded Whites. However, although much of the empirical research has focused on differences between African Americans

and Whites, few studies have examined differences in life satisfaction between racial minority groups. Therefore, this finding should not be discounted as it is possible that the life satisfaction of Black/African American/Afro-Caribbean/Africans truly is significantly lower than that of Hispanic/Latinos, at least for a college student population.

Hypothesis 2. The second hypothesis of this research question was that female college students' life satisfaction, as measured by the total score on the Satisfaction with Life Scale (SWLS), would be significantly lower than male college students. In order to address this question, an analysis of covariance (ANCOVA) was conducted with income, victimization, and health status as covariates, a categorical independent variable of gender (male/female), and a continuous dependent variable of life satisfaction as measured by total score on the SWLS. The findings of this analysis were not significant and did not support our hypothesis. This result was inconsistent with previous research, which has suggested women have significantly lower life satisfaction than men (Bromley, 2000; Butt, 2009; Gamma & Angst, 2001; Haring, Stock, & Okun, 1984). However, similar to the present study's findings, other research has suggested there are not significant gender differences in life satisfaction (Ng, Loy, Gudmunson, & Cheong, 2009; Shmotkin, 1990).

A possible explanation for the present study's finding that gender does not significantly relate to life satisfaction, is that perhaps gender differences in life satisfaction are largely explained by disparity in the variables controlled for in this analysis; income, victimization, and health status (i.e., disability, mental health, substance abuse, and chronic illness), as well as other variables such as educational level and age, which were controlled for through the sampling methods used in this study. Consequently, in controlling for these variables any significant relationship between gender and life satisfaction may have been eradicated. However, a post-

hoc independent-samples *t*-test comparing the life satisfaction of males and females was not significant, thereby failing to support this argument.

Another, possible explanation for the finding that gender does not significantly relate to life satisfaction is that other factors that were controlled for in the present study through sampling methods, such as educational level and age, could explain past findings of gender differences in life satisfaction. Therefore, since the present study only looks at college students, the relationship between gender and life satisfaction may be different at the college level. It is possible that there is less disparity between genders on college campuses than later on in the workplace. College campuses are typically considered more inclusive in general, with accepting atmospheres, and therefore it is possible that gender discrimination is not as rampant and therefore life satisfaction is higher for female college students than women in other environments. This interpretation is further supported by the fact that previous research that found significant gender differences did not utilize college populations (Butt, 2009; Gamma & Angst, 2001; Haring, Stock, & Okun, 1984). However, a study by Bromley (2000) used college students as well as high school students, and found female participants reported significantly lower life satisfaction than males. Finally, there truly may no longer be difference in life satisfaction for males and females which has significant implications for progression towards gender equality.

Hypothesis 3. The final hypothesis of the first research question was that the reported life satisfaction of individuals who self-identified as LGBQ would be significantly lower than that of individuals who self-identified as heterosexual. This question was investigated through a third analysis of covariance (ANCOVA) once again controlling for income, victimization, and health status by entering them as covariates. Sexual orientation (LGBQ/heterosexual) served as

the categorical independent variable and life satisfaction as the continuous dependent variable, as measured by the SWLS, in the analysis. The ANCOVA did not find significant differences in the life satisfaction of LGBQ and heterosexual identified college students, thereby failing to support this hypothesis.

Furthermore, post hoc analysis involving an independent-samples t-test comparing the life satisfaction of participants who identified as LGBQ and heterosexual was not significant, thereby indicating that there was no significant difference in life satisfaction between groups even without controlling for possible confounds. It is also important to note that this finding is inconsistent with previous literature, although somewhat sparse in breadth, which found LGBQ identified individuals have lower quality of life (Sandfort, de Graaf, & Bijl, 2003) and life satisfaction (Traeen, Martinussen, Vitterso, & Saini, 2009), than heterosexual identified persons. One possible explanation for this finding is that the sample size of LGBQ identified participants (n = 33) in the present study was much smaller than the heterosexual group (n = 276). Consequently, the sample size of LGBQ participants may not have been large enough to provide statistical power to find differences between groups.

Additionally, this study focused specifically on college students and so it is possible LGBQ and heterosexually identified college students do not significantly differ in life satisfaction. Again, many college campuses are generally viewed as more tolerant and accepting environments and therefore members of the LGBQ community may not experience as much prejudice and marginalization on college campuses than they do in other environments, in turn raising their life satisfaction. It is possible that less disparity is experienced by LGBQ individuals who are enrolled in college. Moreover, although the present study focused specifically on life satisfaction, this variable is a subcomponent of quality of life, and therefore

these findings were more consistent with a study by Horowitz, Weis, and Laflin (2001) who found sexual orientation did not significantly impact quality of life.

Research Question 2

The second research question of the present study focused on investigating whether there was a significant relationship between mindfulness and life satisfaction as measured by total scores on the FFMQ and SWLS, respectively. It was hypothesized that mindfulness would have a significant positive relationship with life satisfaction, whereby as mindfulness increased so would life satisfaction. In order to examine this question a correlational analysis was conducted between the continuous variables mindfulness and life satisfaction. The hypothesis was supported with findings indicating a significant positive relationship between mindfulness and life satisfaction. Moreover, these findings provided further support to empirical literature suggesting a positive significant relationship between mindfulness and life satisfaction (Brown & Ryan, 2003; Forti, 2012; Harnett et al., 2010; Keng, Smoski, & Robins, 2011; Kong, Wang, and Zhao, 2014; Shapiro, Brown, Thorensen, & Plante, 2011; West, 2008). This suggests that college students who have higher dispositional levels of mindfulness are more likely to have higher life satisfaction.

A possible explanation for the finding that mindfulness has a significant positive relationship with life satisfaction can be traced back to the theoretical concept of what it is to be mindful. According to the literature, mindfulness constitutes mindful awareness, attention to present moment experiences with an accepting and non-evaluative attitude (Baer, 2003; Baer, Smith, & Allen, 2004; Bishop et al., 2004; Brown & Ryan, 2003, 2004). Therefore, it is possible that individuals who are more mindful are more satisfied with their life because they are aware of their emotions and are able to experience set-backs and negative emotions without self-critical

judgment or catastrophic predictions about their future happiness. Additionally, given that awareness is a large component of mindfulness, individuals who are more mindful may be more satisfied with life because they take the time to notice and experience life and all the sensations it has to offer.

Research Question 3

The third research question sought to investigate the relationship between acceptance and life satisfaction. Although, much of the literature has focused on acceptance as a subcomponent of mindfulness, one of the purposes of this study was to examine acceptance as its own construct. It was hypothesized that there would be a significant positive relationship between acceptance and life satisfaction. Dispositional acceptance was measured by total scores on the AAQ-II, a measure of experiential avoidance, wherein high scores on the AAQ-II were interpreted as low levels of acceptance (Hayes et al., 2004). This interpretation was further supported through preliminary analysis; a correlational analysis was conducted between the acceptance related facets Non-judge and Non-react on the FFMQ and the AAQ-II. As anticipated, a significant negative correlation was found between the two measures.

Next, in order to examine the relationship between acceptance and life satisfaction a correlational analysis was conducted. The results supported the alternate hypothesis revealing a significant negative relationship between total scores on the AAQ-II and life satisfaction. Therefore as scores on the AAQ-II increased (i.e., acceptance decreased) so did life satisfaction. Although some literature has found a significant relationship between dispositional acceptance and quality of life (Butler & Ciarrochi, 2007; Hayes et al., 2004) and other literature has found acceptance based therapy (i.e., ACT) improves quality of life (Crosby, 2011, Twohig et al., 2010), the literature on the relationship between acceptance and life satisfaction is somewhat

lacking. Therefore, this finding addresses a gap in the current literature. Additionally, this finding is consistent with the previous literature that has specifically investigated the relationship between acceptance and life satisfaction (Forman, Herbert, Moitra, Yeomans, & Geller, 2007; Lundgren, Dahl, Yardi, & Melin, 2008). By definition, acceptance involves one's ability to accept and adopt a non-evaluative attitude to present moment experiences and emotions without reacting or attempting to change the situation (Hayes & Feldman, 2004; Hayes & Plumb, 2007; Marlatt & Kristeller, 1999). Subsequently, one possible explanation for the finding that individuals with higher levels of acceptance are more satisfied with their life is that in having a greater ability to accept life's events, individuals are in turn more satisfied and less regretful about their past life experiences and decisions.

Research Question 4

The fourth research question addressed one of the primary focuses of the present study, which was to investigate whether mindfulness moderated the relationship between minority status and life satisfaction. It was hypothesized that mindfulness would have a buffering effect whereby the negative relationship between being a racial, gender, or sexual minority and life satisfaction would be reduced as dispositional mindfulness increased. In order to protect against the effects of the possible confounds of income, victimization, and health status were entered as covariates into the model to control for their effect(s). The findings indicated that only victimization and income significantly impacted the life satisfaction of college students and so the other covariate was removed from the regression model. This finding is consistent with previous literature suggesting that income and victimization have a significant negative impact on life satisfaction (Barger, Donoho, & Wayment, 2009; Coker et al., 2000). Failure to find the health status variable, which was designed to encompass disability, substance abuse, chronic

illness, and mental health, to be a significant covariate for life satisfaction was inconsistent with past empirical findings (Bray & Gunnell, 2006; Damnjanovic, Lakic, Stevanovic, & Jovanovic, 2011). This can potentially be explained by a relatively small sample size of participants who endorsed any of the health status variables (n = 59), wherein there may have been insufficient power to detect differences.

In the next step of the regression model, mindfulness, gender, sexual orientation, and race were entered as predictor variables. The results of block two were also significant. Inspection of coefficients revealed that mindfulness was a significant predictor of life satisfaction. This result suggests that college students with higher dispositional levels of mindfulness tend to have higher life satisfaction. This is consistent with the results of the correlational analysis conducted for research question 2. Belonging to the Black/African American/Afro-Caribbean/African racial group was also found to be significantly predictive of life satisfaction, but in a negative direction. This result suggested that Black/African American/Afro-Caribbean/African individuals have significantly lower life satisfaction than Whites/Non-Hispanics. This finding is also consistent with the results of the ANCOVA conducted for the first hypothesis explored in the first research question of the present study. Also consistent with the findings of the three ANCOVA's conducted for the first research question was results of the regression which suggested gender, sexual orientation, and belonging to the Asian/Pacific Islander, or Hispanic/Latino group were not predictive of life satisfaction.

However, it is possible that the predictive power and possibility of detecting an interaction effect for the Asian/Pacific Islander group, was reduced by the fact that descriptive statistics indicated mindfulness was lowest for Asian/Pacific Islanders. However, the regression model also revealed that belonging to the "Other" group was predictive of life satisfaction,

wherein college students who classified their race as "Other" tended to have lower life satisfaction than Whites/Non-Hispanic college students. This finding was inconsistent with the findings of the ANCOVA conducted on the relationship between race and life satisfaction, where individuals who identified as "Other" were not found to significantly differ from the other races in life satisfaction. Given that these findings were contradictory it was hard to discern how to interpret these findings. Additionally, given that the Other group covered all manner of racial combinations, it was hard to ascribe conclusions about this racial group. However, given that descriptive statistics showed mindfulness was highest for the Other group, it is possible that this affected the predicting power of identifying as the Other group. Specifically, it is possible that higher levels of mindfulness amongst the participants who identified as Other was responsible for the finding that the Other group had significantly lower life satisfaction than the White participants in the present study. However, the sample size may have been insufficient to detect an interaction effect.

The final block of the regression model involved adding the interaction terms: mindfulness by gender, sexual orientation, and race. The results were not significant and therefore suggested that mindfulness did not significantly moderate the relationship between minority status and life satisfaction. Given that research has not previously focused on mindfulness as a moderator in the relationship between minority status and life satisfaction, it is of course possible that the present study's findings suggest no such relationship exists. However, it should be noted that this study did not categorize participants into levels of mindfulness. Therefore, it is also possible that the mindfulness of minority participants was not high enough or varied enough to produce a significant moderating effect. This possibility is supported by the fact that mean scores for the reported mindfulness of the participants in the sample indicate only

moderate levels of mindfulness and the range does not extend below or above the response of "sometimes true". Therefore, the mindfulness of the participants may not be varied enough to produce significant statistical results for mindfulness as a moderator. Additionally, mean scores indicated that life mindfulness reported by heterosexuals was consistently higher than that reported by LGBQ identified participants, which may have interfered with the detection of a interaction between sexual orientation and mindfulness. Similarly, mean mindfulness scores were highest for the Other and Black/African American/Afro-Caribbean/African groups and lowest for the White and Asian/Pacific Islander groups, which may have impeded the ability to detect an interaction effect for race. Subsequently, more research on this topic needs to be conducted before further interpretations can be made.

Research Question 5

The final question of interest in this study was focused on investigating the impact of dispositional acceptance on the relationship between minority status and life satisfaction. It was hypothesized that acceptance would have a significant moderating effect on this relationship, whereby it reduced the negative relationship between status as a gender, racial, or sexual minority and life satisfaction. Therefore, it was hypothesized that as dispositional levels of acceptance increased, minorities would be more likely to have higher life satisfaction, closer to that of respective majority groups. In order to explore this hypothesis a hierarchical regression analysis was conducted, with income, victimization, mental health, disability, substance abuse, and chronic illness entered as predictors in the first block. Results suggested that mental health, victimization, and income were predictive of life satisfaction in college students. This finding supported the decision to control for these variables in the various analyses conducted in the

present study. Health status was not found to be significant and thus was removed from the regression model.

Step two of the regression analysis involved adding acceptance, sexual orientation, gender, and race as predicting variables into the model. Results suggested that acceptance was a significant predictor of life satisfaction, wherein college students who were more accepting tended to have higher life satisfaction. This finding is consistent with previous literature (Lundgren, Dahl, Yardi, & Melin, 2008; Yeomans & Geller, 2007) as well as the findings of the aforementioned correlational analysis conducted to examine research question 3. The regression model also revealed that Black/African American/Afro-Caribbean/Africans was predictive of lower life satisfaction compared to Whites/Non-Hispanics. Furthermore, gender, sexual orientation, and the other racial groups were not found to significantly predict life satisfaction, as was found in the ANCOVA's conducted to investigate research question 1.

The final step in the regression analysis added the interaction terms into the model. The results of the model were significant and revealed that acceptance significantly moderated the relationship between gender and life satisfaction. Therefore, differences in life satisfaction for males and females were reduced as dispositional acceptance increased. This finding is interesting, because block 2 of the regression model and the ANCOVA conducted to examine the first research question in the present study failed to find significant differences between males and females in life satisfaction. However, this finding suggests that whatever difference is present can be reduced by higher levels of dispositional acceptance. Therefore, the results of this regression analysis suggest that a woman who has lower life satisfaction than a man could potentially reduce the discrepancy were she to increase in levels of acceptance. It is also interesting that acceptance was found to be a significant moderator, but mindfulness was not,

given the aforementioned significant correlation between the two measures. One possible explanation for this finding is that mean scores on the AAQ-II ranged from high to moderate levels of acceptance, whereas median scores on the FFMQ indicated only moderate levels of mindfulness. Therefore, it is possible that participants' higher levels of reported acceptance allowed for the detection of a moderating effect.

Implications of Results

Regardless of the various limitations, the findings of the present study have several implications for practice, particularly with college students including women, racial minorities, and individuals who identify as LGBQ. The finding which suggest mindfulness positively relates to life satisfaction adds to an already significant body of literature that suggests as mindfulness increases so does life satisfaction (Brown & Ryan, 2003; Forti, 2012; Harnett et al., 2010; Keng, Smoski, & Robins, 2011; Kong, Wang, and Zhao, 2014; Shapiro, Brown, Thorensen, & Plante, 2011; West, 2008). This finding provides some support for the growing implementation of mindfulness-based therapy interventions aimed at increasing one's mindfulness. Additionally, given that the present study found a significant positive relationship between mindfulness and life satisfaction using a college population, it may be beneficial for university counseling centers to offer mindfulness-based therapy or mindfulness-based seminars/interventions to their students. Similarly, the present study's finding that acceptance has a significant positive relationship with life satisfaction provides support for acceptance-based therapy and the utilization of therapies like ACT in work with college students.

The results of the current study also suggested that individuals who identify as Black, African American, Afro-Caribbean, and/or African have significantly lower life satisfaction than Whites/Non-Hispanics. This finding identifies the need for continued focus on outreach

targeting this racial minority group so as to increase the clinical services both offered and received. Hopefully clinical practice with this minority group would work toward improving the quality of their lives and reducing the disparities they experience. Specifically, it would be beneficial for university counseling centers to formulate interventions catering to Black/African American/Afro-Caribbean/African college students. For example, university counseling centers could host stress-management or other therapeutic skills seminars in conjunction with African American/Afro-Caribbean/African allied RSO's so as to increase the likelihood of reaching this demographic. Additionally, given that life satisfaction has been found to improve post-therapy, it is important that this racial group has access to and is made aware of the therapeutic services offered on campus. The present study's finding that this racial group's life satisfaction was significantly lower than Hispanic/Latinos, another racial minority group, needs further empirical attention, given this finding had not previously been observed in the literature.

The present study's findings also suggest that acceptance moderates the relationship between gender and life satisfaction, wherein as acceptance levels increase, disparities in life satisfaction between males and females are reduced. This finding suggests that acceptance-based therapy has increased potential to improve the life satisfaction of women, because it can reduce negative impacts on life satisfaction resulting from being the gender minority. Therefore, acceptance may be somewhat of a protective factor for women. To this end, it may be especially beneficial for university counseling centers to utilize acceptance-based therapy and interventions in their work with female college students.

Limitations and Delimitations of the Study

Limitations and Delimitations in Sampling

Overall, the sample utilized in the present study was large (N = 309) and more than met requirements for what an *a priori* analysis determined was essential for a moderate degree of power. However, there are some concerns regarding the generalizability of the sample, particularly because a sample of convenience was utilized. The first weakness of the study's sample is that results are specific to two large southeastern universities and may not extend to other geographical areas or college students from other institutions. Still, the two southeastern universities utilized in the present study are large in size with students from all over the United States. Second, the present study only invited 18-25 year old college students to participate and therefore the results may not be generalizable to younger or older individuals and those of different educational levels. However, by focusing solely on 18-25 year-old college students, age and education was controlled for, eliminating these variables as possible confounds. The sample was fairly even regarding gender (male and female) and therefore the results should be generalizable to both male and female college students. Transgender individuals were excluded from analyses involving gender and therefore results may not extend to transgender individuals. Regarding sexual orientation, participants predominantly identified as heterosexual and the sample size of LGBQ identified individuals was small. Subsequently, the findings involving comparisons between LGBQ and heterosexuals may need to be interpreted with caution as there may have been insufficient power to detect differences between the LGBQ and heterosexual group. However, it should be noted that the percentage of LGBQ participants (10.7%) in the present study was consistent with U.S. population estimates.

In general, the sample of racial minorities included in the present study was large (n = 229) representing 74.1% of the overall sample. However, there were some limitations regarding the representation of each racial group. In the present study, Hispanic/Latinos and Black/African American/Afro-Caribbean/African participants were over-represented compared to U.S. population estimates, while White/Non-Hispanics, Asian/Pacific Islanders, and the Other group were underrepresented in the study's sample (U.S. Census Bureau, 2013). As a result, the findings may only be able to be generalized to similar populations. Additionally, most of the racial minorities included in the study were recruited from the southeastern university located in Miami, while most of the White participants were recruited from another southeastern university in northern Florida. Therefore, it is possible that differences found between racial minority participants and White participants are an artifact of the location from which participants were recruited.

A main limitation of the sample used in the present study was that there was overlap between gender, racial, and sexual minorities as some of the participants belonged to multiple categories. Therefore, the results may have been skewed in some manner by inclusion of individuals who also belonged to other minority groups. For example, 27 of the 33 LGBQ identified participants in the present study also identified as a racial minority. Therefore, even if LGBQ participants had been found to have significantly lower life satisfaction this may have been due to status as a racial minority rather than a sexual minority. Also, the findings suggest the sample of racial minorities may have been predominantly one gender, which may have also affected the results in some way.

The overall sample for the present study contained individuals who averaged moderate to high levels of acceptance. However, another limitation of the present study is that only

moderate levels of acceptance were reported by the participants. This may have hindered the ability for statistical analysis to detect whether mindfulness moderated the relationship between minority status and life satisfaction. Furthermore, of the participants sampled, there were differences in the average levels of mindfulness reported by gender, race, and sexual orientation. These differences may have affected the study's findings in some manner.

The marital status of participants was almost exclusively "single" and thus results may not apply to individuals who are married, separated, divorced, or cohabitating. A proportion of the sample also included individuals with disability, mental health problems, substance abuse, chronic illness, those who had been victimized, and those from a range of incomes, a finding that is common in the literature for persons of minority status. However, these are not considered limitations to generalizability as these variables were controlled for in all of the analyses conducted to produce the findings of the present study.

Limitations and Delimitations in the Methods and Measures

A delimitation of the methods utilized in the present study, was that the possible confounds of victimization, socioeconomic factors, and mental health, discussed in Chapter 2, were controlled for through the inclusion of the covariate variables of victimization, income, and health status in all statistical analyses. Still, other socioeconomic factors such as poverty, were not controlled for and thus could have impacted findings. Income is not synonymous to poverty as poverty takes into account family size and composition, whereas income looks solely at annual earnings (U.S. Census Bureau, 2014). Additionally, although the anonymity of the participants in the study's design likely protected somewhat against participants manipulating responses according to social acceptability, the presence of questions of a sensitive nature may have encouraged skewed responses. For example, one question asked "Have you ever been a

victim of physical or psychological violence such as: domestic violence, assault, rape, child abuse, emotional abuse, bullying, and/or stalking?"

Moreover, 229 of the participants filled out the survey in-person and thus may have felt self-conscious when answering questions which may have impacted their responses. In fact, the results overall may have been impacted in unknown ways by the fact that some of the participants filled out the survey in-person, while others completed the survey online. Additionally, responses may have been affected by the recruitment method by which participants were obtained as three different methods with three different incentives were utilized. Response rates of those recruited by e-mail were especially poor, indicating this was not an ideal method of recruitment. Additionally, given that participants who received e-mails were targeted in a more personal manner, they may have felt their privacy was compromised in some way and been less inclined to participate in the study. Those who did participate also may have felt more pressure to alter their responses according to social acceptability. Another limitation to methods of the present study is that the questionnaires were not counterbalanced, wherein all measures were presented to participants in the same sequence for both in-person and on-line participants. Consequently, sequencing effects could have potentially created bias in the results of the present study and findings should be interpreted with some level of caution.

Finally, the study was limited in its correlational design as individuals were not separated according to levels of mindfulness or acceptance and thus these differing levels between sub-groups of gender, race, and sexual orientation may have impacted the results of the present study. In terms of the measures utilized in the present study, results of preliminary analyses supported the reliability of the measures indicating high internal consistency for all of the measures. Additionally, the results supported the use of the AAQ-II as a measure of lack of

acceptance, as there was high convergent validity between total scores on the AAQ-II and the acceptance related facets of nonjudge and nonreact on the FFMQ. However, a main limitation of the measures utilized in the present study was that all of the measures are self-report measures of mindfulness, acceptance, and life satisfaction, thereby leaving no way to validate the accuracy of the participant's report. Additionally, participant responses on these self-report measures may have been impacted by unknown factors, such as the present mood or life events on the day they participated in the study.

Directions for Future Research

Given the implications of the reviewed literature and of the present study, several directions for future research are indicated that could inform the development of possible interventions and encourage further research into preventative and moderating factors. The present study found income, victimization, and mindfulness had significant negative relationships with life satisfaction. Therefore, it would be helpful for future research to investigate whether significant differences exist between minorities and their majority counterparts, specifically in respect to disparities between groups in variables that negatively impact life satisfaction.

Although some disparities are directly measurable; other relationships remain unclear in the current state of the literature. In particular, research into the disparity experienced by sexual minorities in socioeconomic factors (such as income) has resulted in mixed findings. Some of the current research has found significantly lower incomes amongst sexual minorities (Carpenter, 2008; Egan et al., 2008; Factor & Rothblum, 2007). However, some studies findings have indicated disparity only exists for men who identify as gay and bisexual (Black et al., 2000) and that women who identify as lesbian actually receive higher incomes than women who identify as

heterosexual (Black, Maker, Sanders, & Taylor, 2003; Blandford, 2003). Therefore, future research needs to focus not only on overall differences in variables such as mental health, income, and victimization between majority and minority groups, but also on differences within minority groups, such as differences between individuals who identify as lesbian, gay, bisexual, questioning, or differences between racial/ethnic minority groups. Next, future research might also seek to identify other variables negatively associated with life satisfaction and investigate differences by gender, race, and sexual orientation.

The results of the present study indicated women and LGBQ identified college students did not report significantly lower life satisfaction than males and heterosexual college students, respectively. Therefore, future research could explore whether these findings were the result of protective factors experienced by life on a college campus. This could be done by surveying the level of gender and LGBQ related discrimination and attitudes of student populations across different college campuses and measuring differences in life satisfaction as compared to matched non-college controls.

Another direction for future research would be to replicate the current study using a population of people from different age and educational levels in order to re-examine the relationships between gender, race, sexual orientation and life satisfaction. It is possible that the present study failed to find a relationship between gender and life satisfaction or sexual orientation and life satisfaction because young adults with higher education were utilized in this study. Perhaps there are significant differences in the life satisfaction of gender, racial, and sexual minorities of lower educational levels compared to Whites of lower educational levels. Additionally, the sample size of LGBQ participants in the present study was quite small, which may have resulted in insufficient power to detect true differences between groups. Therefore,

future research should attempt to replicate the current study with a more diverse participant pool, particularly in regard to sexual orientation, so as to be able to fully examine differences in life satisfaction between individuals who identify as LGBQ and those who identify as heterosexual. Additionally, since the recruitment method of e-mailing members of LGBTQ affiliated RSO's produced a poor response rate (17.5%), it would be best that future studies use alternative methods to increase the sample size of LGBQ identified participants. Possible ideas include recruiting from LGBTQ allied consortiums, such as the LGBTQ Consortium for Higher Education. Future studies should also investigate whether there are group differences in life satisfaction within LGBQ identified individuals. A limitation of the present study was that there was overlap between gender, racial, and sexual minority groups with participants belonging to multiple groups. Therefore, future research could investigate the research questions of the present study isolating minority groups. For example, only White women would be used as the population to explore the overarching gender minority questions. Additionally, subgroups with sufficient sample sizes could be collected so that differences between subgroups could be compared. For example, the life satisfaction of male LGBQ White participants could be compared to LGBQ African American participants etc.

Another potential area for empirical research relates to the possibility that the findings of the present study regarding Hispanic/Latinos may were influenced by the fact that most of the Hispanic/Latino participants utilized in this study were drawn from an area in the southeast where this racial group is the statistical majority. Therefore, future studies should replicate this study using a sample of Hispanic/Latinos recruited from areas in the United States with population distribution more similar to U.S. Bureau statistics. Moreover, it may be beneficial for future studies to investigate differences in life satisfaction for racial minorities residing in areas

with high concentration of their respective racial/ethnic groups compared to racial minorities who also represent the statistical minority where they reside. Is life satisfaction higher for racial minorities you live in areas highly populated by racial minorities? Future studies could explore this possibility by measuring exposure to racism and investigating its impact on life satisfaction for racial/ethnic minority groups. Additionally, given the present study's small sample of Asian/Pacific Islander and participants who identified as "Other", future replications of this study should attempt to gather a large subsample of each race/ethnicity in order to increase generalizability.

However, it is possible that the present study's findings are not the product of insufficient sample size but that the life satisfaction of college students who identify as Asian/Pacific Islander and Other do not in reality significantly differ in life satisfaction from Whites/Non-Hispanics. If this is the case then there is some indication that the life satisfaction of these other racial groups is impacted differently than the Black/African American/Afro-Caribbean/African group, despite also being racial minorities. Therefore, it would be beneficial for future research to explore the reasons why the life satisfaction of these racial minorities is affected differently by minority status than African Americans and also explore determinants of life satisfaction.

Future studies could also replicate the present study, with participants that report a greater range of mindfulness in order to more closely examine mindfulness as a possible moderating variable in the relationship between minority status and life satisfaction. Future studies could also replicate the present study, but recruit participants that reported a greater range of acceptance. This may increase the likelihood of detecting true results. Additionally, the present study found some evidence for acceptance as a moderating variable between minority status and life satisfaction, at least for gender. Therefore, future studies may further investigate acceptance

as a potential moderator in the relationship between gender and life satisfaction. Moreover, given that research has not previously focused on acceptance as a moderating variable in the relationship between minority status and life satisfaction, this study should be replicated in its entirety, in order to determine whether replications also identify acceptance as a moderating variable.

Conclusions

Gender, racial, and sexual minorities represent a substantial portion of the college and overall population. Equality between majority and minority groups has yet to be achieved, but is something to be continuously and actively worked towards. One disparity in equality facing gender, racial, and sexual minorities is research that suggests their life satisfaction is lower than respective majority groups. Therefore, this study's investigation into mindfulness and acceptance as potential moderators in this negative relationship represent an attempt to identify possible protective factors that could improve the quality of life and life satisfaction of minorities as well as potentially inform work with these populations. More research is needed to clarify the role of mindfulness and acceptance as moderators in the relationship between life satisfaction and minority status before the true nature of these relationships can be understood. However, the present study's findings suggest that acceptance in particular has potential as a moderating variable. Additionally, the present study adds to the pre-existing body of literature that suggests life satisfaction is significantly lower for those who identify as African American and life satisfaction improves as mindfulness and acceptance improves. These findings provide support for the use of mindfulness and acceptance based therapies, particularly with college students, women, and African Americans.

APPENDIX A

IRB APPROVAL MEMORANDUM

APPROVAL MEMORANDUM

Date: 7/9/2014

To: Joy Prempas

Address: [redacted]
Dept.: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
The Role of Mindfulness and Acceptance on the Life Satisfaction of Gender, Racial and Sexual Minorities

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and one member of the Human Subjects Committee. Your project is determined to be Expedited per per 45 CFR § 46.110(7) and has been approved by an expedited review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 7/7/2015 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that

the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is FWA00000168/ IRB number IRB00000446.

Cc: Angela Canto, Advisor
HSC No. 2014.11411

The formal
PDF approval letter: http://humansubjects.magnet.fsu.edu/pdf/printapprovalletter.aspx?app_id=11411

APPENDIX B

INFORMED CONSENT FOR IN-PERSON RECRUITMENT

INFORMED CONSENT FORM

You are being invited to take part in a research study. You can ask questions about the research. You can read this form and agree to take part right now, or email or phone the primary investigator with any questions you have before you decide. You have been asked to take part in this research study because we are seeking to draw participants from the college population. Some of you may participate because you are interested in free pizza and/or understand the importance and benefit of research. Either way, you must be between 18-25 years of age to be included in the research study and sign this form.

This research is being conducted by Joy Prempas, a Doctoral Candidate in the Department of Educational Psychology and Learning Systems at Florida State University and is under the supervision of Dr. Angela Canto.

Study title: Life Satisfaction and Mindfulness among College Students

Purpose of the research study: The purpose of this study is to assess life satisfaction and mindfulness among college participants age 18-25.

What you will be asked to do in the study: In this study, you will be asked to complete 4 brief questionnaires that are anticipated to take 20 minutes total. Some questionnaires may inquire about disturbing events, which could cause discomfort or distress. You are free to skip these questions if you prefer not to respond to them.

Voluntary participation: You should take part in this study only because you want to. You will not be penalized if you decide *not* to participate in this study nor will you be penalized if you decide to stop participating in this study. You have the right to stop participating in the study at any time.

Location: The questions we will be asking are kept completely separate from this signed form and therefore, your responses will not be attached to your name in any way.

Time required: Once you acknowledge and submit this informed consent document, we anticipate that your participation in this study will require no more than 20 minutes.

Benefits: As a research participant you will not personally benefit directly from this research, besides learning more about how research is conducted. Significant findings, in any capacity, may contribute to the body of knowledge and advance understanding within the field of multicultural research relating to life satisfaction and mindfulness. Additionally, research may identify protective factors as well as inform practice.

Compensation or payment:

Participants:

For those of you who participate in this study, you will receive a free slice of pizza as compensation for your participation.

Confidential research: This means that all responses you give on the surveys will be kept confidential, to the extent allowed by law. Each survey will be identified by a subject-code-number, which will be created by the researcher. The responses you give on the questionnaires will be kept in a locked computer for 3 years; after which the data will be destroyed. Additionally, your name will not appear on any of the surveys or results.

Study contact for questions about the study or to report a problem: Joy Prempas, Doctoral Candidate & Principal Investigator, at [redacted] or by email at [redacted]. You may also contact Dr. Angela Canto, Faculty Supervisor, at (850) 644-9440 or by email at acanto@fsu.edu.

University contact about your rights in the study or to report a complaint: If you have any questions about your rights as a participant in this project or if you feel that you have been placed at risk due to your participation, you may contact the Chair of the Research Committee at Florida International University, Counseling and Psychological Services at E-mail: xstevens@fiu.edu.

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Please indicate whether you understand the risks and benefits associated with the present study?

Please check Yes or No.

I have read the information in this consent form and agree to participate in this study. I have had the chance to ask any questions about this study, and they have been answered for me. Although the investigator will make every effort to maintain confidentiality, I understand the research records must be available to FSU's IRB, if they are requested.

_____ _____

Name ***Date***

APPENDIX C

INFORMED CONSET FOR ON-LINE RECRUITMENT

INFORMED CONSENT FORM

Researchers at the Florida State University (FSU) study many topics. To do this we need the help of people who agree to take part in a research study. You are being invited to take part in a research study. You can ask questions about the research. You can read this form and agree to take part right now, or email or phone the primary investigator with any questions you have before you decide. You have been asked to take part in this research study because we are seeking to draw participants from the college population. Some of you are students enrolled in the EPLS subject pool and need to complete 2 hours of research participation for course credit. Participation in this study fulfills this requirement. Some of you may participate because you are interested in being entered in a raffle for $50.00 and/or understand the importance and benefit of research. Either way, you must be between 18-25 years of age to be included in the research study and sign this form.

This research is being conducted by Joy Prempas, a Doctoral Candidate in the Department of Educational Psychology and Learning Systems at Florida State University and is under the supervision of Dr. Angela Canto.

Study title: Life Satisfaction and Mindfulness among College Students

Purpose of the research study: The purpose of this study is to assess life satisfaction and mindfulness among college participants age 18-25.

What you will be asked to do in the study: In this study, you will be asked to complete 4 brief questionnaires that are anticipated to take 20 minutes total. Some questionnaires may inquire about disturbing events, which could cause discomfort or distress. You are free to skip these questions if you prefer not to respond to them.

Voluntary participation: You should take part in this study only because you want to. You will not be penalized if you decide *not* to participate in this study nor will you be penalized if you decide to stop participating in this study. You have the right to stop participating in the study at any time.

Location: The questions we will be asking are posted on a secure website and can be completed anywhere you have access to the internet.

Time required: Once you acknowledge and submit this informed consent document via the Qualtrics Survey System, we anticipate that your participation in this study will require no more than 20 minutes.

Benefits: As a research participant you will not personally benefit directly from this research, besides learning more about how research is conducted. Significant findings, in any capacity, may contribute to the body of knowledge and advance understanding within the field of multicultural research relating to life satisfaction and mindfulness. Additionally, research may identify protective factors as well as inform practice.

Compensation or payment:

COE Subject Pool Participants:

For those of you in the COE subject pool, the time you spend completing this study can be applied to course requirements for research participation. For 20 minutes of participation students will receive 0.5 credits towards their 2 credit COE subject pool requirement. You will be granted credit immediately following study completion by turning in your credit slip attached to the last page of the study. No penalty point system will be used.

RSO participants:

For those of you who were recruited via your RSO membership, you will be entered into a raffle to receive a $50.00 gift card as compensation for your participation. The odds of winning the $50.00 gift card cannot be directly determined as it depends on the number of participants in the study. However, it is anticipated that no more than 100 participants will be part of the raffle.

Confidential research: This means that all responses you give on the surveys will be kept confidential, to the extent allowed by law. After participation in the study is verified and you are either awarded course credit or entered into the raffle, your name will be removed from all data. Each survey will be identified by a subject-code-number, which will be created by the researcher. The responses you give on the questionnaires will be kept in a locked computer for 3 years; after which the data will be destroyed. Additionally, your name will not appear on any of the surveys or results.

Study contact for questions about the study or to report a problem: Joy Prempas, Doctoral Candidate & Principal Investigator, at [redacted] or by email at [redacted]. You may also contact Dr. Angela Canto, Faculty Supervisor, at (850) 644-9440 or by email at acanto@fsu.edu.

IRB contact about your rights in the study or to report a complaint: If you have any questions about your rights as a participant in this project or if you feel that you have been placed at risk due to your participation, you may contact the chair of the Human Subjects Committee, Institutional Review Board, through the Florida State University Office of the Vice President for Research at (850) 644-9694 or e-mail gary@fsu.edu.

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Please indicate whether you understand the risks and benefits associated with the present study?

Please check Yes or No.

I have read the information in this consent form and agree to participate in this study. I have had the chance to ask any questions about this study, and they have been answered for me. Although the investigator will make every effort to maintain confidentiality, I understand the research records must be available to FSU's IRB, if they are requested.

APPENDIX D

DEMOGRAPHIC INFORMATION QUESTIONNAIRE (DIQ)

1. Please identify your gender
    a. Male
    b. Female
    c. Transgender (a person whose self-identity does not conform unambiguously to conventional notions of male or female gender)

2. Please state your age? (Specify in years)_____

3. Have you ever been a victim of physical or psychological violence such as: domestic violence, assault, rape, child abuse, emotional abuse, bullying, and/or stalking?
    a. Yes, Please specify_____
    b. Yes, (prefer not to disclose)
    c. No

4. Please choose which applies to you
    a. Disabled (a person having a physical or mental condition/handicap that limits movements, senses, or activities)
    b. Able-bodied

5. Has a medical provider ever diagnosed you with a mental health disorder or learning disability?
    a. Yes
    b. No

6. Has a medical provider ever diagnosed you with a substance abuse disorder?
    a. Yes
    b. No

7. Has a medical provider ever diagnosed you with chronic illness?
    a. Yes
    b. No

8. What is your class year?
    a. Freshman
    b. Sophomore
    c. Junior
    d. Senior
    e. Graduate Student

9. What is your marital status?
    a. Single
    b. Cohabitating

c. Married
d. Divorced
e. Separated

10. Please identify your race/ethnicity
    a. Asian/Pacific Islander
    b. Black/African American/Afro-Caribbean/African
    c. Hispanic/Latino
    d. Native American
    e. White/Non-Hispanic
    f. Other _____

11. What sexual orientation do you identify as?
    a. Gay
    b. Heterosexual
    c. Lesbian
    d. Bisexual
    e. Questioning

12. Please estimate your yearly family household income - the total yearly income of the family members living in your house. (Do not include the income of family members who do not live with you, unless you are supported financially by them and do not include roommate incomes of non-related individuals).
    a. $25,000 or below
    b. $26,000-$50,000
    c. $51,000-$100,000
    d. $101,000-$150,000
    e. $150,000-$200,000
    f. Above $200,000

APPENDIX E

ACCEPTANCE AND ACTION QUESTIONNAIRE (AAQ-II)

*The following measure is available for public use for research purposes by accessing http://contextualscience.org/acceptance_action_questionnaire_aaq_and_variations

AAQ-II

Below you will find a list of statements. Please rate the truth of each statement (for the agreed time period) in the column on the right, using the following scale:

1	***2***	***3***	***4***	***5***	***6***	***7***
never true	*very seldom true*	*seldom true*	*sometimes true*	*frequently true*	*almost always true*	*always true*

1.	my painful experiences and memories make it difficult for me to live a life that I would value	
2.	I'm afraid of my feelings	
3.	I worry about not being able to control my worries and feelings	
4.	my painful memories prevent me from having a fulfilling life	
5.	emotions cause problems in my life	
6.	it seems like most people are handling their lives better than I am	
7.	worries get in the way of my success	

APPENDIX F

FIVE-FACET MINDFULNESS QUESTIONNAIRE (FFMQ)

*Author permission was granted by Dr. Baer to use the following measure

Five Facet Mindfulness Questionnaire

Description:
This instrument is based on a factor analytic study of five independently developed mindfulness questionnaires. The analysis yielded five factors that appear to represent elements of mindfulness as it is currently conceptualized. The five facets are observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience.

Please rate each of the following statements using the scale provided. Write the number in the blank that best describes *your own opinion* of what is *generally* true for you.

1	2	3	4	5
never or very rarely true	rarely true	sometimes true	often true	very often or always true

_____ 1. When I'm walking, I deliberately notice the sensations of my body moving.
_____ 2. I'm good at finding words to describe my feelings.
_____ 3. I criticize myself for having irrational or inappropriate emotions.
_____ 4. I perceive my feelings and emotions without having to react to them.
_____ 5. When I do things, my mind wanders off and I'm easily distracted.
_____ 6. When I take a shower or bath, I stay alert to the sensations of water on my body.
_____ 7. I can easily put my beliefs, opinions, and expectations into words.
_____ 8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.
_____ 9. I watch my feelings without getting lost in them.
_____ 10. I tell myself I shouldn't be feeling the way I'm feeling.
_____ 11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
_____ 12. It's hard for me to find the words to describe what I'm thinking.
_____ 13. I am easily distracted.
_____ 14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.

_____ 15. I pay attention to sensations, such as the wind in my hair or sun on my face.
_____ 16. I have trouble thinking of the right words to express how I feel about things
_____ 17. I make judgments about whether my thoughts are good or bad.
_____ 18. I find it difficult to stay focused on what's happening in the present.
_____ 19. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.
_____ 20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.
_____ 21. In difficult situations, I can pause without immediately reacting.
_____ 22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.
_____ 23. It seems I am "running on automatic" without much awareness of what I'm doing.
_____24. When I have distressing thoughts or images, I feel calm soon after.
_____ 25. I tell myself that I shouldn't be thinking the way I'm thinking.
_____ 26. I notice the smells and aromas of things.
_____ 27. Even when I'm feeling terribly upset, I can find a way to put it into words.
_____ 28. I rush through activities without being really attentive to them.
_____ 29. When I have distressing thoughts or images I am able just to notice them without reacting.
_____ 30. I think some of my emotions are bad or inappropriate and I shouldn't feel them.
_____ 31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
_____ 32. My natural tendency is to put my experiences into words.
_____ 33. When I have distressing thoughts or images, I just notice them and let them go.
_____ 34. I do jobs or tasks automatically without being aware of what I'm doing.
_____ 35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.
_____ 36. I pay attention to how my emotions affect my thoughts and behavior.
_____ 37. I can usually describe how I feel at the moment in considerable detail.
_____ 38. I find myself doing things without paying attention.
_____ 39. I disapprove of myself when I have irrational ideas.

APPENDIX G

SATISFACTION WITH LIFE SCALE (SWLS)

*The following measure is available for public use for research purposes by accessing http://internal.psychology.illinois.edu/~ediener/SWLS.html

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

____ In most ways my life is close to my ideal.

____ The conditions of my life are excellent.

____ I am satisfied with my life.

____ So far I have gotten the important things I want in life.

____ If I could live my life over, I would change almost nothing.

APPENDIX H

RECRUITMENT E-MAIL

Greetings,

You are invited to participate in a research study on college students' life satisfaction, dispositional mindfulness, and dispositional acceptance. To be eligible, you must be a college student of 18-25 years of age. If you elect to participate, you will be asked to click on the link below. You will be routed to a short online survey packet. Total completion time is approximately 10-15 minutes.

Your participation in this survey is completely voluntary and your responses will remain confidential. You may decide to withdraw from the study at any time without penalty. Prior to being directed to the survey, you will be asked to digitally sign an informed consent form by checking yes or no.

There are no direct benefits for participating in this study. Your participation in this study may enhance the understanding of the impact of mindfulness and acceptance on the life satisfaction of college students. Those who complete the survey will be given the opportunity to enter a raffle for a $50.00 Visa gift card. After the survey you will enter the raffle by providing your email address. After participation in the study is verified and you are entered into the raffle, your e-mail will be removed from all data. Each survey will be identified by a subject-code-number, which will be created by the researcher. The responses you give on the questionnaires will be kept in a locked computer for 3 years; after which the data will be destroyed. Additionally, your name will not appear on any of the surveys or results. There are no known or anticipated risks associated with participation in this study.

If you have any questions about this study, please contact Joy Prempas, primary investigator at [redacted] or Dr. Angela Canto, faculty advisor, at acanto@fsu.edu.

Click here: https://qtrial2014.az1.qualtrics.com/SE/?SID=SV_77pDiUMNBrtXlY1

Respectfully,

Joy Prempas, M.A.
Counseling Psychology and School Psychology Doctoral Candidate
Florida State University

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BIOGRAPHICAL SKETCH

Joy Desirée Prempas began her college education at the University of Illinois at Urbana-Champaign, where she obtained a Bachelor of Arts degree in English and Psychology. While at the University of Illinois at Urbana-Champaign, Joy pursued an emphasis on racial/ethnic and sexual minority studies within both her majors. In August 2010, Joy earned a Master's degree in Clinical Psychology at the University of Central Florida. During this heavily applied program Joy performed an internship with the Children's Advocacy Center and also conducted mental health assessments, group, family, and individual therapy with children and adults within placements at Healthy Start/Healthy Families, Stewart-Marchman Project WARM, and Halifax Behavioral.

Joy is currently a doctoral candidate in the APA accredited combined doctoral program in Counseling Psychology and School Psychology at the Florida State University. Over the course of her doctoral degree Joy has gained a breadth of experience in a variety of settings working with diverse clinical populations. Joy continued her work with children, adolescents, and families through practicum placements with Children's Home Society, Lawton Chiles High School, and St. Marks Home for Boys. However, Joy largely focused her attention during her doctoral studies on gaining clinical experience with adult populations. This included work in Forensic Psychology conducting competency coaching, assessment, and therapy at Florida State Hospital. Additionally, Joy performed practicums at other inpatient mental health hospitals further enhancing her skills in crisis intervention, assessment, and psychological report writing. Placements included, the adolescent, adult, and geriatric units at the Behavioral Health Center at Tallahassee Memorial Hospital and Appalachee Center. Joy worked with a residential substance abuse population at the Drug Information Services Center (DISC-Village) at their Sisters in

Sobriety residential facility providing group and individual therapy. Joy also worked in community mental health at the Human Services Center and with the college population at the FSU Career Center. Also, while completing her doctoral degree, Joy was afforded multiple opportunities to be a clinical supervisor to other graduate students, to be a laboratory instructor in counseling skills, guest lecturer, and research team member.

Most recently, in August 2014 Joy completed her pre-doctoral internship at Florida International University Counseling and Psychological Services, where she maintained a caseload, conducted individual and couples therapy, and co-facilitated a LGBTQ process therapy group. Joy was also responsible for conducting full neuropsychological batteries and writing comprehensive psychological reports. During her internship, Joy devoted a special project to work with student veterans and has a special interest in work servicing the veteran population. Additionally, Joy is passionate about work with the LGBTQ population and considers herself to be an ally. Overall, Joy is greatly interested in working with adults providing individual, couples, and group process therapy.