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THE IMPACT OF CONCURRENT RACIAL AND RELIGIOUS DISCRIMINATION ON THE MENTAL HEALTH AND WELL-BEING OF MUSLIM YOUNG ADULTS

by

ZAHRA MURTAZA

Under the Direction of Gabriel Kuperminc, PhD

ABSTRACT

Muslim Americans comprise a diverse ethnic and racial minority group in the U.S. Since September 11th, 2001, Muslim Americans have reported increased levels of discrimination (Peek, 2011). However, given their multiple minority identities, it is unclear whether these experiences of discrimination are based upon their racial identity, religious identity or a combination of these identities. Informed by theories of multiple minority stress, intersectionality and resilience, the current study investigated if and how different types of perceived discrimination (racial and religious) affect the mental health and well-being of Muslim American young adults. Furthermore, the study addressed gaps in the literature regarding factors which promote resilience in the face of discrimination. Specifically, the current study explored the role of

spirituality as a main or buffering effect in the presence of perceived racial and religious discrimination. In order to gain insight about potential within-group differences in the experiences of racial and religious discrimination, the current study also examined the potential interactive role of racial/ethnic group in the relationships between perceived racial and religious discrimination and mental health outcomes.

This study utilized a sample of 283 Muslim American young adults. Results found that perceived racial and religious discrimination have unique and differential effects on depression and anxiety. When assessed concurrently, racial discrimination predicted depression and anxiety, religious discrimination predicted anxiety and racial discrimination predicted lower life satisfaction. Additionally, results provided evidence to support the additive model of intersectionality, as religious discrimination emerged as a distinct construct from racial discrimination, predicting unique variance in mental health outcomes over and above racial discrimination. In terms of resilience, spirituality had a compensatory effect on mental health, as higher levels of spirituality predicted lower depression and anxiety and higher life satisfaction.

This study fills a gap in the current literature by identifying how specific types of perceived discrimination (measured by racial and religious discrimination) are related to Muslim young adults' mental health outcomes and how spirituality and race/ethnicity may influence these relationships. This study also contributes to the broader theoretical understanding of discrimination, mental health and well-being in minority populations and points to the importance of continued intersectionality work on these topics.

INDEX WORDS: Racial discrimination, religious discrimination, Muslim, young adults, intersectionality, mental health

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ON THE MENTAL HEALTH AND WELL-BEING OF MUSLIM YOUNG ADULTS

by

ZAHRA MURTAZA

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

2019

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by

ZAHRA MURTAZA

Committee Chair: Gabriel Kuperminc

Committee: Erin Tully

Wing Yi Chan

Cirleen DeBlaere

Electronic Version Approved:

Office of Graduate Studies

College of Arts and Sciences

Georgia State University

May 2020

DEDICATION

Alhamdulillah. This work is dedicated to my family – near and far – and to my communities.

There are too many of you to name but just know that every one of you with your unique experiences inspires within me – and the world – great resilience and pushes me to keep doing this work. I am forever indebted.

ACKNOWLEDGEMENTS

“It takes a village...” And so it did.

I am extremely grateful to all of my mentors throughout graduate school, including Dr. Wing Yi Chan, my first research advisor at GSU who supported the idea for this project from the very beginning and who has always pushed me to think critically; Dr. Gabriel Kuperminc who graciously took me on as a student and has provided palpable support in the execution of this project; Dr. Erin Tully, my clinical advisor and instructor who has encouraged me to integrate an evidence-based and clinical lens into my work; Dr. Cirleen DeBlaere, whose collaborative and fresh perspectives on intersectionality I have valued; the YES! Lab and ECO Lab, including my lab writing group members who have generously spent time reading and editing my work; my amazing graduate school cohort and my sisters I’ve met along the way; and my clinical advisors and instructors throughout graduate school, including Dr. Suzann Lawry and Dr. Susan Furman who have taught me to always value the person – and all their diverse identities - in clinical work and research. Additionally, I am appreciative of several funding opportunities which were made available to me throughout my graduate career, including the GSU Department of Psychology Dissertation Stipend Award, the HRSA GPE Fellowship, the El-Hibri Foundation Scholarship for Advancing Inclusion and the SCRA (APA Division 27) Dissertation Grant, which supported this research.

I especially could not have reached this stage without the support of my parents Murtaza and Irum, whose sacrifices, love and support of my education are the reason I am here today; my wise younger brother Yahya; my grandparents and all their prayers; my extended family and my beloved friends, especially Salwa and my *P-town ladies*. And to Mujtaba, my husband, I am continually thankful to have a partner like you who believes in me and pushes me to be my best

self, in any role; I could not have completed this without you. Thank you all for your love and faith in me.

To all my fellow Muslim Wellness Foundation-Atlanta board members/volunteers and the Muslim community in Atlanta, thank you for allowing me to grow with you and gain a better understanding of Muslim mental health through our conversations and community work together. Additionally, I am touched by all the Muslim young adults who took the time to participate in this study and/or spread the word.

Lastly, I am always in awe of and appreciate of brave voices in today's age who are challenging ongoing discrimination in recent years. Your courage has been a constant source of inspiration for this work and continues to provide me – and us all – with hope to move forward.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	V
LIST OF TABLES	XI
1 INTRODUCTION.....	1
1.1 The Case of Muslim American Young Adults	2
1.2 Racial Discrimination, Religious Discrimination or Both?	2
<i>1.2.1 Black Muslims: Double and Triple Jeopardy.....</i>	<i>3</i>
1.3 Minority Stress and Psychological Outcomes.....	4
1.4 Theoretical framework: Multiple minority stress.....	5
<i>1.2.1 Multiple minority stress in Muslim Americans.</i>	<i>6</i>
1.4 Within-Group Diversity: Race/Ethnicity	9
1.5 Problem: The conflation of religious and ethnic discrimination	11
1.6 Discrimination and Negative Mental Health Outcomes for Muslim Americans Post- 9/11.....	14
1.7 Psychological consequences of racial discrimination.....	15
1.8 Psychological consequences of religious discrimination	17
1.9 Consideration of Individual Differences: Negative Affect.....	21
<i>1.9.1 Reasons to Control for Negative Affect</i>	<i>21</i>
<i>1.9.2 Reasons to Exclude Negative Affect</i>	<i>22</i>
1.10 Spirituality as a culturally-relevant promotive factor	22

1.10.1	<i>The Importance of Spirituality for Muslim Americans</i>	24
1.11	Aims and Related Hypotheses	26
2.1	Recruitment	27
2.2	Participants	28
2.3	Procedures.....	30
2.4	Measures	31
2.5	Data analysis plan	37
2.5.1	<i>Power analysis.</i>	37
2.6	Missing Data.	38
2.7	Assumptions and Correlations.....	39
2.8	First and Second Study Aims	39
2.9	Third Study Aim	39
3.1	Descriptives.....	41
3.1.2	<i>Primary study variables.</i>	41
3.2	Regression Assumptions.	42
3.3	Correlations.	43
3.4	Racial group differences amongst study variables.....	44
3.5	Hierarchical regressions.	47
3.5.1	<i>Study Covariates.</i>	47
3.5.2	<i>Aim 1.</i>	48

3.5.3 Aim 2	51
3.5.4 Aim 3.1	53
3.5.5 Aim 3.2	56
4.1 Overview	58
4.2 Group differences.....	59
4.2.1 Racial and religious discrimination.....	59
4.2.2 Negative affect, depression and anxiety.....	61
4.2.3 Life satisfaction and spirituality.....	62
4.3 Differential Effects of Perceived Racial and Religious Discrimination.....	63
4.3.1 Sociopolitical Climate: Why is religious discrimination different?.....	64
4.3.2 Overlapping variance between constructs of PRDS and GAD-7.....	65
4.3.3 Third Variables	66
4.3.4 Other findings and implications.....	67
4.4 Implications for Intersectionality Research.....	67
4.4.1 The Additive Approach.....	68
4.4.2 The Interactive Approach.....	68
4.4.3 Methodological Considerations.....	69
4.5 Spirituality provides a compensatory resilience effect.	70
4.6 Intra-Group Differences in Discrimination-Mental Health Outcomes Relationships?.....	71

4.7	Negative affect: a consideration of individual differences.....	73
4.8	Depression in Muslim American Young Adults	74
4.8.1	<i>Framing the Results in Existing Models of Depression.....</i>	<i>77</i>
4.9	Limitations.....	78
4.10	Future Directions.....	81
4.11	Implications.....	84
4.11.1	<i>Clinical Implications.</i>	<i>85</i>
4.11.2	<i>Policy Implications.</i>	<i>86</i>
4.12	Conclusion.....	86
REFERENCES.....		88
APPENDICES.....		108
Appendix A Online Survey		108
Appendix A.1	<i>Study Consent Form.....</i>	<i>108</i>
Appendix A.2	<i>Measures for Dissertation Study.....</i>	<i>110</i>
Appendix B Recruitment Materials.....		122
Appendix C Study Tables with Negative Affect as a Covariate.....		124

LIST OF TABLES

Table 1 Correlations Among Key Study Variables (N = 283).....	44
Table 2 Means and Standard Deviations on measures of Racial Discrimination and Religious ..	45
Table 3 Means and Standard Deviations on measures of Depression and Anxiety.....	45
Table 4 Means and Standard Deviations on measures of Life Satisfaction and Spirituality	46
Table 5 Means and Standard Deviations on measures of Negative Affect.....	46
Table 6 Aim 1 Hierarchical Regression Results	49
Table 7 Aim 2 Hierarchical Regression Results	52
Table 8 Aim 3.1 Hierarchical Regression Results	55
Table 9 Aim 3.2 Hierarchical Regression Results	57

1 INTRODUCTION

The United States has experienced an alarming rise of Islamophobia in recent years. Islamophobia is defined in social science as “indiscriminate negative attitudes or emotions directed at Islam or Muslims” (Bleich, 2015, p. 1582). While anti-Muslim prejudice has been documented in Western Europe and the United States for centuries, it has increased drastically since the terrorist attacks of September 11th, 2001 (a set of events now colloquially referred to as 9/11). Kaplan (2006) likened anti-Muslim backlash post-9/11 to sentiments harbored towards Japanese Americans during World War 2. In other words, Muslim Americans are often perceived as domestic threats (Ali, 2014), despite evidence that the majority of Muslim Americans are socially and economically well-integrated into American society (Pew Research Center, 2007). As a result, Muslim Americans experience high rates of prejudice, stereotypes and discrimination (Peek, 2011), particularly in recent years.

The 2015 Gallup Poll reports data from 2010 that Muslims reported experiencing religious and racial discrimination at rates higher than other religious groups in the US. Of note, in the period since the 2016 Presidential election, statistics point to a rapid increase in hate crimes towards various minority groups, including Muslim Americans (CAIR and UC Berkeley Islamophobia Report, 2016). For instance, while there were 20 reported anti-mosque incidents in 2014, 78 such incidents were reported in 2015. Furthermore, a 2017 Pew Report found that the number of assaults experienced by Muslim Americans in 2016 (127 incidents) surpassed the number experienced in 2001 (93 incidents), or in any year following 9/11 (Kishi, 2017). According to a research report entitled, “Legalizing Othering: The United States of Islamophobia”, between the years of 2010-2016, more than 194 anti-Sharia bills have been proposed in 39 states across the United States from 2010-2016, 18 of which have passed and

become law (Elsheikh, Sisemore & Lee, 2017). Additionally, the proposed travel ban from seven Muslim-majority nations has been argued as a “Muslim ban” according to civil rights groups such as the American Civil Liberties Union (ACLU) and demonstrates ongoing discrimination towards Muslims in the United States. Relatedly, the Council on American-Islamic Relations (CAIR), the largest Muslim civil rights organization in the U.S. released a report in 2018 entitled, “Targeted”. This report showed a 17 percent rise in anti-Muslim bias incidents and a 15 percent rise in hate crimes in 2017 compared to the previous year.

1.1 The Case of Muslim American Young Adults

In this increasingly intolerant context, it is important to understand the psychological consequences of discrimination for Muslim Americans broadly. However, there are several compelling reasons why these processes merit investigation within Muslim American young adults, specifically. First of all, Muslim young adults comprise approximately half or 52 percent of the Muslim population in the United States (Diamant, 2017). Secondly, the majority of Muslim millennials or young adults were children or adolescents when 9/11 occurred (Diamant, 2017). Due to the particularly important developmental context of peer relationships during adolescence as well as the exploration of identity which begins in this age, examining the role of discrimination on mental health outcomes in this cohort is particularly relevant.

1.2 Racial Discrimination, Religious Discrimination or Both?

While there exists a large body of evidence that Muslim Americans experience high rates of discrimination, it remains unclear whether such discrimination occurred on the basis of an individual’s racial or religious background. The current study uses the terminology “racial discrimination” and “religious discrimination” and it is important to note that these terms refer to perceived racial discrimination and perceived religious discrimination.

Islamophobia appears at face value as a religion-based construct; however, many scholars have argued that it includes *both* racial and religious elements (Bravo López, 2011; Meer, 2013). For example, it is unclear whether Nabra Hassanen, a 17-year-old Muslim female of Nubian Egyptian ethnic background, and visibly Black, was killed in June 2017 in Northern Virginia due to her racial or religious background (with some, such as the Fairfax County police also discounting a racial or religious motivation entirely). The current study investigates whether religious discrimination is associated with mental health, including depression, anxiety and well-being, above and beyond associations with racial discrimination. It was hypothesized that religious discrimination would predict negative mental health outcomes above and beyond racial discrimination.

1.2.1 Black Muslims: Double and Triple Jeopardy

Additionally, given that Muslim Americans comprise the second most racially/ethnically diverse religious demographic in the U.S. (Pew, 2015), Muslim Americans' experiences of discrimination may also be influenced by their different social identities including religiosity/spirituality and ethnicity. It was hypothesized that higher levels of spirituality would help Muslim Americans cope with racial and religious discrimination. Furthermore, there is evidence to suggest that the racial and religious discrimination experienced by Black (African or African American) Muslims represents a "double jeopardy" in that it is doubly injurious; not only do Black Muslims experience racial discrimination from wider society and from within the Muslim community on account of being Black, but they may also experience religious discrimination as a result of being Muslim. In light of a construct known as multiple minority stress, which will be further detailed and which sets the framework for the current study, it is

hypothesized that Black Muslims will be more negatively impacted by both racial and religious discrimination compared to Muslims of other ethnic backgrounds.

In sum, the current study seeks to understand how different types of perceived discrimination (racial and religious) impact Muslim Americans' mental health, and whether or not these relationships vary based on spirituality and within-group differences based on ethnicity.

1.3 Minority Stress and Psychological Outcomes

Individuals of minority backgrounds in the United States experience high levels of minority stress. Minority stress is conceptualized as stress which individuals experience because of their minority identity or identities (Meyer, 2003). This stress occurs on top of other commonplace stressors that individuals experience (e.g. family stress, job stress, etc.). Minority stress theory addresses the association between discrimination and negative mental health outcomes in minority populations (Meyer, 2003). Originally developed to explain mental health disparities in lesbian, gay, bisexual and transgender (LGBT) populations, minority stress theory argues that psychological distress occurs in minority populations through three main processes: a) experiences of prejudice on account of belonging to a minority group b) anticipation of rejection from out-group members or the 'majority' society due to their minority status and c) an internalization of prejudice due to real or perceived discrimination experienced. In short, experiences of discrimination contribute to a schema of the external environment as threatening, which may increase vigilant behavior and an internalization of stigma towards one's in-group. While this theory is relevant for LGBT populations, immigrants and racial/ethnic minorities, it also applies to individuals of religious minority backgrounds (Meyer, 2003). The current study explored the role of multiple minority stress on mental health outcomes.

1.4 Theoretical framework: Multiple minority stress

Multiple minority stress theory posits that individuals with multiple marginalized statuses experience an even greater amount of stress due to the individual and combined effects of these minority statuses (Grollman, 2012). Multiple minority stress has largely been examined in racial and sexual minority populations while less research investigates individuals who dually identify as racial and religious minorities.

Several studies have investigated the impact of multiple minority stress and its impact on youth and young adult mental health outcomes. For instance, using a sample of 1,052 Black adolescents and young adults, Grollman (2012) found that individuals who reported more types of discrimination (e.g. discrimination based on race, gender, sexual identity and social class) and higher frequency of such discrimination reported higher levels of depressive symptoms and poorer self-rated health compared to individuals reporting fewer types of and lower frequency of discrimination. Additionally, a cross-sectional study with 89 Black adolescents and young adults found that racial discrimination and homelessness stigma were associated with depressive symptoms while sexual orientation discrimination was not a significant correlate (Gattis & Larson, 2016). This study also found that, regardless of homelessness severity (measured by an individual's report of having ever spent a homeless night on the street), racial discrimination was significantly related with depression, demonstrating that racial discrimination is likely a pervasive experience for Black homeless youth and it contributes to greater minority stress, compared to homeless status or sexual orientation. However, other research suggests that less visible identities such as a gay or lesbian sexual orientation, still play a role in mental health, as evidenced by research with LGBT people of color (Balsam et al., 2011) and individuals of low socioeconomic status (Muntaner et al., 2013). Further, individuals with less visible minority

identities may have developed fewer coping strategies to combat discrimination related to these identities (Fukuyama and Ferguson, 2000; Greene, 2000).

1.2.1 Multiple minority stress in Muslim Americans.

Few studies have specifically investigated multiple minority stress related to racial and religious discrimination in Muslim Americans. However, there is a growing research literature on the role of different social identities on mental health and well-being outcomes in Muslim Americans. For instance, some research suggests that African or African American Muslim youth experience a ‘double jeopardy’ on account of their multiple minority statuses as both Black and Muslim (Ellis et al., 2010; Haffeejee, 2015) and African Muslim females reported experiencing a ‘triple jeopardy’ due to their ethnic, religious and gender identities (Ellis et al., 2010). ‘Triple jeopardy’ has been documented in other populations such as Black lesbians, for whom each identity – race, gender, and sexual orientation – conveys risk for discrimination (Bowleg, 2008). Accordingly, stereotypes and discrimination associated with these identities may contribute to different processes described in minority stress theory. For instance, Bowleg (2008) argues that as a female, resisting sexist oppression may be more socially acceptable as sexism is a form of societal oppression which has impacted women across ethnic backgrounds. Therefore, discrimination on account of this social identity may promote higher in-group solidarity and less internalization of prejudice (Bowleg, 2008). Contrarily, a Black lesbian may feel motivated to hide her sexual minority identity which may relate to higher internalization of negative societal beliefs about one’s sexuality (Bowleg, 2008).

For Muslim American young adults whose racial and religious identities are often solidified during their emerging adulthood years, investigating impacts of both racial and religious discrimination will allow for a clearer understanding of minority stress theory in this

population (Grewal, 2009; Peek, 2005). While double jeopardy has been documented in some studies of Muslim Americans, this argument has yet to be confirmed through psychological research in which both constructs (racial and religious discrimination) are included in the same study.

The current study aims to fill this gap in the research literature by examining the psychological correlates of discrimination based on Muslim Americans young adults' intersecting social identities. The intersection of racial and religious discrimination is worthy of study given the evidence that individuals who hold multiple minority statuses experience poorer mental health outcomes than those belonging to only one minority group (Balsam et al., 2011).

1.3 Studying Multiple Minority Stress Using Intersectionality.

The current study utilized a framework drawn from intersectionality theory to study multiple minority stress experienced by Muslim Americans. Intersectionality was first popularized by Black feminists in the fields of sociology and legal studies (Crenshaw, 1991). A collective of Black feminists argued, "We...find it difficult to separate race from class from sex oppression because in our lives they are most often experienced simultaneously" (Combahee River Collective, 1977, p. 234). Crenshaw (1991) popularized this framework by arguing that the experience of being an African American and being a woman was entirely different from being an *African American woman*, who experiences interlocking systems of oppression related both to her racial and gender identities. Thus, intersectionality has been defined as "mutually constitutive relations among social identities" (Shields, 2008) wherein the sum and/or interplay of multiple social identities is qualitatively *different* from the experience of belonging to one of these social identities. It is important to note that intersectionality is not only the study of how different social identities interact; it is also an exploration of how multiple oppressions related to these identities

interact. In recent years, several scholars have argued that incorporating intersectionality in psychological research can aid researchers in identifying how social structures (e.g. structural discrimination) impact individuals' psychological outcomes (Cole, 2009; Warner, 2008).

One popular method of studying intersectionality is the additive method (Cole, 2009). This method assumes that while discrimination related to individual social identities contributes to negative mental health outcomes, the additive effect of experiencing *multiple* types of discrimination relates to even poorer outcomes. Studies using the additive method have argued that this method allows researchers to examine the direct effects of each type of discrimination while also allowing researchers to explore if one or some of these types of discrimination impact mental health and well-being above and beyond the other forms of discrimination (DeBlaere et al., 2014; Watson et al., 2016; Szymanski and Meyer, 2008), which is a goal of the current study. The additive method has also been proposed to support an initial understanding of how oppression related to multiple identities functions (Bowleg, 2008).

Another approach to studying intersectionality is the interactive approach (Dubrow, 2008; McCall, 2005). In this approach, a phenomenon of interest is thought to vary based on the presence of another variable, which may include a categorical variable such as an individual's social identity.

The proposed study utilized the additive method to address the primary research question related to the impact of racial and religious discrimination on Muslim young adults' mental health and well-being. There is no known existing measure that includes both racial and religious discrimination for this population; consequently, separate measures were utilized to assess the differential impacts of racial and religious discrimination on the mental health outcomes of Muslim young adults. The additive method was utilized in this study through the use of racial

and religious discrimination as separate predictors in hierarchical regression models. These models examined whether religious discrimination predicted mental health outcomes above and beyond effects of racial discrimination.

This study also utilized the interactive method of intersectionality, through the use of an interaction term between racial and religious discrimination in the aforementioned regression models. The aim here was to test whether the interaction of both of these types of discrimination predicted psychological distress above and beyond the independent contribution of both types of discrimination. Additionally, an interactive effect between each type of discrimination and race/ethnic group category (categorical variables) was examined. In other words, this study examined the possibility that the relationship between discrimination and mental health could vary for Muslims of different racial/ethnic backgrounds.

1.4 Within-Group Diversity: Race/Ethnicity

According to the 2017 Pew Research Poll, approximately 3 million Muslims live in the United States. About three in four Muslim Americans are immigrants or children of immigrants, with 28% identifying as Asian, 20% identifying as Black, 41% identifying as White (mostly composed of Arab, Middle Eastern, or Persian), 8% Hispanic and 3% other (Diamant, 2017). Attending to experiences of multiple minority statuses in this population, there is growing evidence to suggest that within-group diversity may affect experiences of discrimination.

1.4.1 Race/Ethnicity.

Several studies of Muslim youth and young adults have found that Muslim Americans report perceiving different stereotypes based on their racial/ethnic backgrounds (Ali, 2014; Ellis et al., 2010; Haffeejee, 2015). Additionally, a recent study explored perceptions of religious discrimination among differing racial and ethnic groups within Muslim communities in the

United States (Zainiddinov, 2016), finding that Asian Muslims report the lowest prevalence of religious discrimination and Hispanic/Latinx Muslims report the highest. This study also found that White Muslim men report higher rates of discrimination compared to White, Black, and Asian Muslim women.

1.4.2 Intra-Group Privilege and Disadvantage.

There is some theoretical evidence to suggest that Muslims of different ethnic backgrounds may ascribe more strongly to more privileged social identities in order to reduce their risk of discrimination. Ajrouch & Kusow (2007) conducted a qualitative study of Lebanese Muslim immigrants to the United States and Somali Muslim immigrants to Canada and found that these individuals navigate racial and religious spaces based on their desire to acculturate to their host society. Specifically, Somalis were more likely to ascribe to their religious identity (and dress in that manner) in an effort to distance themselves from mainstream Black identity, which is afforded less privilege in North America.

Contrarily, Lebanese Muslim immigrants in the United States were more likely to ascribe to a White identity due to their perception that they would gain more privilege based on this affiliation (Ajrouch & Jamal, 2007; Ajrouch & Kusow, 2007).

African or African American origin Muslim youth have reported experiencing stereotypes that other Black youth experience (e.g. assumptions of violence) in addition to religious discrimination (Ellis et al., 2010). The effects of these multiple types of discrimination may cumulatively contribute to negative mental health outcomes for Black Muslims such as anxiety, depression and poorer well-being (Gattis & Larson, 2016). South Asian-origin Muslim youth may dually experience stereotypes of being ‘terrorists’ while also possibly being affected by the Asian model minority myth, which may possibly decrease social stigma towards this

group (Gee et al., 2009). However, despite the evidence that Muslim Americans try to reduce their risk of discrimination, the reality is that rates of discrimination are still high (CAIR, 2018).

The current study investigated whether the effects of racial and religious discrimination on psychological outcomes vary based on racial/ethnic background, as belonging to a particular racial/ethnic group may elicit different discrimination experiences amongst Muslim Americans and the larger U.S. zeitgeist. Investigating the role of race/ethnicity in the relationship between racial and religious discrimination and mental health outcomes (particularly in the relationship between religious discrimination and mental health outcomes) is another way to account for intersectionality as it considers within-group diversity within Muslim Americans.

1.5 Problem: The conflation of religious and ethnic discrimination

The current post-9/11 context has contributed to a phenomenon known as the racialization of religion (Bakalian & Bozorgmehr, 2009; Meer, 2013). Specifically, racialization of religion is a phenomenon in which an individual's religious identity is assumed because of one's race (Joshi, 2006). The converse is also true, in that members of certain racial or ethnic groups are assumed to belong to a particular religion. Joshi (2006) argues that this phenomenon results in essentialism, which "reduces people to one aspect of their identity and thereby presents a homogenous...view of an ethnoreligious community".

Since before and after the advent of the "war on terror", Muslims in America have been cast as a racially and religiously atypical and suspect group, often depicted as Arab, South Asian or 'brown' (Jamal & Naber, 2008; Sirin & Fine, 2007). Ibrahim (2008) argues that Muslim racialization has a long history in the United States. This includes Black enslaved Muslims who were persecuted throughout early American history (Ibrahim, 2008). Further, according to the National Conference for Community and Justice, government policies such as the 2001 Patriot

Act have led to increase in reports of racial, ethnic and religious profiling, which makes it difficult to disentangle which type of discrimination targeted individuals are experiencing (NCCJ, 2002).

Because religious and ethnic identity often overlap for Muslim Americans, it may be difficult for individuals to identify the source of their experience of discrimination. As such, many studies of discrimination have failed to disaggregate the independent effects of religious and ethnic discrimination. For instance, a major review of studies on the topic of racial discrimination in children and youth reported using studies that included racial, ethnic and religious discrimination in their review (Priest et al., 2013). Additionally, a recent systematic review about Islamophobia, health and public health which included 53 articles included studies which used measures of racism, discrimination and Islamophobia (Samari, Alcala & Sharif, 2018). The authors argued that Islamophobia encompasses several kinds of discrimination but noted that the majority of studies have not adequately differentiated between these types of discrimination.

Due to the potential additive effects of multiple minority stress, researchers are tasked with understanding the individual and combined effects of racial and religious discrimination in order to better understand their possible unique effects. As Muslim American young adults often negotiate multiple identities, including ethnic, religious and American identities (Sirin & Fine, 2007), it becomes especially important to distinguish between the effects of discrimination being perceived on account of these various backgrounds.

As a result of growing up in a heightened Islamophobic atmosphere, current Muslim American young adults may perceive more religious discrimination than ethnic/cultural discrimination. For instance, Muslim youth living in Britain and the United States believe the

media propagates a negative view of Islam and Muslims (FOSIS, 2005), not necessarily of a singular ethnic group. In this sociopolitical climate, several studies have found that Muslim Americans' religious identity is more salient than their racial/ethnic identity (Ali, 2014; Kibria, 2008; Ghaffar-Kucher, 2012). The rejection-identification model (RIM) argues that in-group members develop strong group identities as a result of societal prejudice and stigma towards their group (Branscombe, Schmitt & Harvey, 1999). Consequently, if Muslim Americans perceive higher stigma towards their religious group, it is possible they may identify more strongly with their religious identity and may attribute more of their experiences of discrimination to their religion rather than their ethnic background (Sheridan, 2006). Previous studies have demonstrated that when individuals identify strongly with their group identity, they become more attuned to discrimination towards that group (Operario & Fiske, 2001). This is exemplified through the finding that increased religiosity is associated with higher perceptions of discrimination amongst Muslim women (Sirin & Katsiaficas, 2010). As expected, this study did find that participants who observed religious dress reported higher rates of discrimination. These studies lend support to the idea that researchers may be missing an important variable if they solely study perceived ethnic discrimination. In the current sociopolitical climate, religious discrimination may more significantly influence Muslim young adults' mental health compared to racial discrimination.

Because the current research literature on Muslim Americans predominantly utilizes scales of perceived racial discrimination, it is limited to studying one type of discrimination at a time. In reality, multiple types of discrimination are likely co-occurring for this population. Previous literature suggests that perceived racial/ethnic discrimination and perceived religious discrimination may be independent constructs, but this assertion has not been carefully tested in

research with Muslim American young adults (Samari et al., 2018). Thus, the current literature is limited in its ability to accurately assess the most salient types of perceived discrimination experienced by Muslim American young adults, or their combined impacts. It becomes crucial to distinguish whether racial discrimination and religious discrimination are two separate constructs in order to determine whether each type distinctly contributes to negative mental health outcomes. The current study aims to understand the association between each of these constructs and mental health, as well as the incremental influence of perceived religious discrimination.

1.6 Discrimination and Negative Mental Health Outcomes for Muslim Americans Post-9/11

Discrimination is a deleterious psychosocial stressor that has been linked to numerous negative mental and physical health outcomes. A meta-analysis of 134 studies conducted by Pascoe and Richman (2009) found that perceived discrimination is related to depressive symptoms, poorer psychological well-being, heightened stress response and poorer cardiovascular health. More specifically, amongst racial and ethnic minorities, the relationship between perceived discrimination and depressive symptoms is well-documented (Miranda, Polanco-Roman, Tsypes & Valderrama, 2013; Noh & Kaspar, 2003; Torres & Ong, 2010; Tummala-Narra, Alegria & Chen, 2012; Williams, 1999). A systematic review about Islamophobia and health including studies of Muslims in North America, Europe and Australia found that Islamophobia had negative associations with mental health as well as other indicators of health (Samari et al., 2018).

Muslims living in the United States report high rates of discrimination and Islamophobic backlash post-9/11 (Rippy & Newman, 2006; Sirin et al., 2008). Eighty-eight percent of participants in a 2008 study of Muslim American young adults reported experiencing

discrimination on account of their religion (Sirin et al., 2008). Correspondingly, several studies point to an increase in anxiety, depression and post-traumatic stress symptoms in Muslim Americans post-9/11, as a result of discrimination (Abu-Ras & Abu-Bader, 2009; Amer and Hovey, 2012). However, one study of Turkish Muslims living in Canada and another of Muslim women in the United States failed to find a link between discrimination and negative mental health outcomes, including anxiety and depression (Ataca & Berry, 2002; Hassounah & Kulwicki, 2007). Therefore, the current study sought to add to the literature about discrimination and mental health outcomes in this population. The mental health outcomes included in the proposed study are depression, anxiety and subjective well-being. The following sections review the literature on the effects of racial discrimination and religious discrimination among Muslim Americans in recent years.

1.7 Psychological consequences of racial discrimination

Studies specifically focusing on Muslim American young adults' experiences of racial discrimination and mental health outcomes have tended to focus on samples of Arab Americans (Abu-Ras & Abu-Bader, 2008; Ahmed, Kia-Keating & Tsai, 2011; Awad, 2010; Moradi & Hasan, 2004; Padela & Heisler, 2010). For example, Ahmed, Kia-Keating & Tsai (2011) found that sociocultural adversities (a construct which included perceived racism and acculturative stress) significantly predicted psychological distress in a sample of 240 Arab American adolescents. Moradi & Hasan (2004) found that personal control partially mediated the relationship between discrimination and psychological distress among 108 Arab Americans. Further, Arab Americans in New York City reported anxiety about the future, fear of hate crimes, loss of community, isolation from the wider community (Abu Ras & Abu Bader, 2008). Of particular relevance to understanding intersectionality, one study found that Arab Muslims

reported higher discrimination based on ethnicity compared to Arab Christians (Padela & Heisler, 2010). It is unclear to which extent these findings extend to Muslim Americans of other racial/ethnic backgrounds.

Few studies have examined psychological consequences of racial discrimination among Muslim Americans specifically, let alone Muslim American young adults. Abu-Ras & Suarez (2009) examined the relationship between race-based stress and PTSD and found that an item asking participants if they “feel less safe after 9/11” was the only predictor significantly associated with PTSD. Whereas the authors found that racial discrimination increased post-9/11, they failed to measure racial discrimination using a valid and reliable scale of discrimination. Another study of Muslim immigrant adolescents in the Netherlands found that perceived ethnic discrimination predicted externalizing behaviors in female and male participants (Maes, Stevens & Verkuyten, 2014). While these studies used Muslim samples, they used either a racial or an ethnic discrimination scale, not a scale of religious discrimination, to examine the relationship between discrimination and mental health outcomes. They also failed to consider within-group diversity.

1.7.1 Limitations.

The current studies investigating racial discrimination and psychological consequences using Muslim samples have some major limitations. The first major limitation is that racial discrimination has been studied mostly in Arab American populations and the majority of Muslims in the U.S. are not Arab Americans. Additional research on Muslim Americans is needed which includes larger representations of other ethnic groups within the Muslim American community. Second, current research on racial discrimination in this group is often used to make claims about discrimination broadly (Abu-Ras & Suarez, 2009). In other words, despite the fact

that multiple minority stress is documented in Muslims Americans on account of their various social identities (e.g. ethnic and religious), current studies predominantly use measures of racial or ethnic discrimination which may neglect the concomitant impact of multiple types of discrimination on this group's mental health. For instance, some studies of discrimination in Muslims have used scales which ask participants to report on their experiences of racial, ethnic *or* religious discrimination (Sheridan, 2006; Sirin & Katsiaficas, 2011) which makes it difficult for both participants and researchers to understand which type of discrimination is being measured.

In conclusion, while there exists a small and growing literature on discrimination in the Muslim American community, there are no studies which have used measures of both racial and religious discrimination, despite the evidence to suggest that multiple minority stress contributes to poorer mental health outcomes.

1.8 Psychological consequences of religious discrimination

There is growing evidence that religious discrimination is a separate construct from racial discrimination. Nadal et al. (2012) developed a measure of religious microaggressions by using a small sample of Muslim Americans, identifying themes of microaggressions experienced by this group which extend beyond racial stereotypes. These themes include “endorsing religious stereotypes of Muslims as terrorists, pathologizing the Muslim religion, assuming religious homogeneity, exoticizing the Muslim religion, Islamophobic and mocking language, and feelings of being an alien in one's own country” (Nadal et al., 2012, p.22). Additionally, Husain & Howard (2017) argue that the continued war on terror as well as violence perpetrated by Muslim-identifying extremists such as ISIS results in ongoing backlash experienced by mainstream Muslims, despite their strong condemnation of extremism. Therefore, Husain & Howard (2017)

as well as other researchers (Ahmed et al., 2011) have argued that the relationship between religious discrimination and mental health in this group warrants further investigation.

In post-9/11 United States society, religious discrimination may have more severe psychological consequences for Muslim Americans than racial discrimination. When distinguishing between religious and ethnic identification, Crocker & Major (1989) have argued that because religious identification is usually viewed as a personal choice compared to ethnic identification, perpetrators of discrimination may be more likely to discriminate based on religious identification compared to ethnic identification. Furthermore, victims of discrimination may take more responsibility for identifying with their religious compared to their ethnicity, which may contribute to feelings of guilt and self-blame (Crocker & Major, 1989). Religious discrimination may also attack an individual's self-concept more than ethnic or racial discrimination does. Muslims comprised 1.6 billion people in the world and often report feeling a sense of global spiritual connectedness to other members of their faith; experiencing or perceiving religious discrimination attacks a meaningful group identity. For instance, several qualitative studies of Muslim youth post-9/11 have found that Muslim youth and young adults perceive high levels of religious discrimination in their environments, and discuss ethnic discrimination far less frequently (Ali, 2014; Ghaffar-Kucher, 2012). For instance, participants in these studies often report being called or treated as a "terrorist" rather than being overtly discriminated due to their racial/ethnic background.

Several studies of Muslims have specifically examined the association between religious discrimination and mental health outcomes. One nationally representative study of adults 16 years and older living in England found that individuals reporting experiences of religious discrimination reported twice as many mental health problems as those who reported no

experiences of religious discrimination (Jordanova, Crawford, McManus, Bebbington & Brugha, 2015). In this study, reported risk for anxiety was higher than reported risk for depression. While this study offers an important contribution to the current literature, a significant limitation was that a one-item question was used to assess religious discrimination. Kunst, Sam & Ulleberg (2013) developed and validated the Perceived Islamophobia Scale (PIS) in 167 German-Arabs, 184 German-Turks and 205 British Pakistanis. The authors found that PIS predicted psychological distress even after controlling for experiences of daily ethnic discrimination. This is the only known study which provides evidence that Islamophobia (or religious discrimination towards Muslims) is related to mental health in Muslims even *after* accounting for the influence of ethnic discrimination. The current study will examine this phenomenon in a sample of Muslim American young adults.

To address the gap in literature related to the measurement of religious discrimination, Rippy & Newman (2008) developed a scale of perceived religious discrimination for Muslim Americans. The Perceived Religious Discrimination Scale (PRDS) includes subscales of interpersonal discrimination, systemic discrimination and bicultural identification. The PRDS was adapted from the Race-Related Stressor Scale (RRSS), which was used with Asian Americans serving in the US military during Vietnam War (Loo et al., 2001). Rippy & Newman (2006) used this scale to assess the relationship between perceived religious discrimination (PRD) and mental health outcomes; they found a significant relationship between PRD and subclinical paranoia amongst male participants but no significant relationship between PRD and anxiety in males or females. The authors posited that some study limitations (including low sample size) may explain the lack of relationship between PRD and anxiety. Additionally, a behavioral measure of anxiety may have been more valid for this population.

In a study of Muslim Australians, Every & Perry (2014) used the PRDS to explore the relationship between religious discrimination and psychological outcomes, and found that the ‘religious prejudice and discrimination’ subscale predicted lower self-esteem while the ‘exposure to a discriminatory environment’ subscale predicted higher self-esteem. Authors posited that because these subscales measure interpersonal and structural discrimination, respectively, it is possible that the former is easier to internalize, while the latter can be externalized and resisted if individuals understand the nature of structural inequalities. In a sample of Muslim American adolescents, Sirin & Fine (2007) similarly found a significant relationship between discrimination and two types of anxiety: physiological anxiety and worry anxiety; however, their scale of discrimination included a combination of ethnic and religious discrimination.

1.8.1 Limitations.

In conclusion, there is a small and growing research literature on religious discrimination and its impact on Muslims; however, there are some mixed findings about psychological outcomes. It is possible that these studies were limited in their construct validity as some of them did not measure religious discrimination specifically. It is also possible that, contrary to racial discrimination, religious discrimination may contribute to higher in-group solidarity which may promote well-being; therefore, the current study will include subjective well-being as an outcome. Furthermore, this research literature does not incorporate a consideration of racial discrimination despite the evidence that both racial and religious both impact mental health outcomes of Muslim Americans.

The current study fills a gap in the literature by using both the PRDS (Rippy & Newman, 2006; Rippy & Newman, 2008) and a measure of racial discrimination to explore the separate effects of racial and religious discrimination in this population. This study also assessed whether

perceived religious discrimination predicted mental health outcomes above and beyond racial discrimination. Thirdly, this study considered three mental health outcomes (i.e., anxiety, depression, and subjective wellbeing) in order to more fully capture the associations between racial and religious discrimination and mental health.

1.9 Consideration of Individual Differences: Negative Affect

A growing research literature has included a consideration of individual differences in the relationship between discrimination and mental health outcomes. Examples of individual differences include personality, self-esteem, coping style and affect (Brody et al., 2006; Mereish, N'cho, Green, Jernigan & Helms, 2016).

1.9.1 Reasons to Control for Negative Affect

It is possible that individuals with certain psychological traits, such as negative affect, perceive greater levels of discrimination or persecution from others. Further, the opposite relationship in which racial discrimination is significantly predictive of negative affect has been substantiated in the current literature. For instance, several studies of racial discrimination – ranging from experimental, survey and daily diary methods – have found significant effects of perceived racism to negative affect (Bennet et al., 2004; Brondolo et al., 2008; Jang, Chiriboga & Small, 2008). Given the established association between negative affect and discrimination, controlling for this individual-level variable in statistical analyses ensures that the effect of negative affect is constant, assisting in determining if the primary relationship of interest is in fact present. If a construct such as negative affect is not included in analyses, there exists a risk of not accounting for a possible confound and possibly overstating a relationship between the independent and dependent variables of interest (in this case, discrimination and mental health outcomes).

1.9.2 Reasons to Exclude Negative Affect

A limitation of controlling for negative affect is the possibility that analyses may result in controlling for the phenomenon of interest (e.g. depression). Indeed, measures of negative affect are typically strongly associated with assessments of negative mental health, including depression and anxiety (Iqbal & Dar, 2015; Watson, Clark & Carey, 1988). Further, most studies of discrimination have included negative affect as an outcome of racial discrimination (Brondolo et al., 2008; Jang et al., 2008) while few have utilized negative affect as a covariate. In the current study, measures of negative affect (PANAS Negative Affect subscale; Watson et al., 1988), depression (CES-D, Radloff, 1977) and anxiety (Spitzer, Kroenke, Williams & Löwe, 2006) were used.

Due to both benefits and limitations to including negative affect as a covariate in analyses, analyses in the current study were conducted both with and without controlling for negative affect and results including negative affect are reported in the results section only when analyses significantly changed. The analyses controlling for negative affect are reported in a table located in the Appendix. Otherwise, the analyses presented in the results section do not include negative affect as a covariate.

1.10 Spirituality as a culturally-relevant promotive factor

A secondary aim of this study was to investigate the role of spirituality in the association between discrimination and psychological outcomes in Muslim American young adults. As discrimination is a psychosocial stressor that challenges one's sense of worth (Meyer, 2003), individuals may need a variety of coping resources to restore this sense of self-worth. Spirituality may enable individuals to transcend discriminatory experiences by allowing them to connect with a higher power and make meaning of their experiences (Abu-Raiya, Pargament &

Mahoney, 2011; Pargament & Brant, 1998). Additionally, this protective factor may remind them of their spiritual connectedness with others of their in-group and with others of their out-group, which may protect against the feelings of isolation associated with discrimination.

Spirituality has generally been theorized in psychological research as a correlate of well-being and positive psychological outcomes (Hill et al., 2000). Researchers in the field of psychology of religion have defined spirituality as “the search for the sacred” (Pargament, Mahoney, Exline, Jones & Shafranske, 2013, p. 14). Religiosity has been defined as “the search for significance that occurs within the context of established institutions that are designed to facilitate spirituality” (Pargament et al., 2013, p. 15). Spirituality may provide individuals cognitive and emotional resources which can be used to mitigate the effects of stress (Fabricatore, Handal & Fenzel, 2000). Additionally, a review of studies related to spirituality, religious and mental health found that spirituality often benefits individuals due to the positive spiritual coping it provides, the community and support and giving individuals positive beliefs about God, others and the world (Weber & Pargament, 2014). It is noteworthy that some studies use the terms spirituality and religiosity interchangeably.

The current study will investigate the role of spirituality as a possible resilience factor for Muslim young adults. Spirituality may be a more relevant construct for individuals of varying levels of religiosity (e.g. two individuals of different levels of practice may report feeling close to God or their faith). Further, it more closely captures emotions and thoughts related to faith in daily life compared to a measure that solely asks participants about their regularity of religious attendance (Underwood & Teresi, 2002).

Two common models used in resilience theory are the compensatory model and protective model (Zimmerman, 2013). Promotive factors are theorized as individual or contextual variables

which help youth overcome negative effects of exposure to risk. In the *compensatory model*, promotive factors have an opposite, independent and direct effect on outcomes of interest. The *protective factor model* posits that promotive factors moderate or modify the relationship between a risk factor and negative outcomes. Some research has examined religiosity/spirituality as a main effect for psychological outcomes (Berry & York, 2011; Reid & Smalls, 2004; Underwood & Teresi, 2002) while other studies have examined religiosity/spirituality as a moderator (Abu-Raiya, Pargament & Krause, 2016; Ojeda & Piña-Watson, 2013).

The current study tested both resilience models without hypothesizing one over the other, similar to some other studies (Duggins et al., 2016). The argument for spirituality's protective role emerges from a literature in which spirituality has been found to promote positive outcomes for individuals broadly and for ethnic minority and Muslim youth, specifically.

1.10.1 The Importance of Spirituality for Muslim Americans.

For Muslim Americans, spirituality may offer culturally-relevant coping strategies (Ahmed et al., 2011). Gallup (2015) found that 42% of Muslim Americans attend religious services weekly and 79% rate their religion as important in their lives. Additionally, numerous studies of Muslim youth have found that religion and spirituality offer positive resources to Muslim youth including adaptation to one's ethnic community (Goforth, Oka, Leong & Denis, 2014; Kumar, Seay & Karabenick, 2015) and fewer negative psychological outcomes (Ahmed et al., 2011). Abu-Ras & Abu-Bader (2008) found that religious coping was the first coping strategy Arab Americans in New York (many of whom identified as Muslim) used to cope with post-9/11 stress. Additionally, a qualitative study of African American Muslim women found that membership in a faith community allayed their negative experiences of race, gender and

religious discrimination by offering them the opportunity for internal self-definition (Byng, 1998), rather than being defined by others in a negative manner.

Spiritual connectedness with others and a belief in greater meaning were related to post-traumatic growth in a study of Muslim American's use of religious coping (Abu-Raiya et al., 2011). In contrast, negative religious coping methods such as difficulty finding meaning in life, belief in the world as a dangerous place or less connection with God were found to relate to depressive symptoms (Abu-Raiya et al., 2011). Similarly, in a sample of Muslim Americans, Abu-Ras & Abu-Bader (2008) found that spiritual practices and values such as prayer, forgiveness, tolerance and outreach to people who did not share their faith were identified as positive coping resources to cope with discrimination shortly following 9/11.

Surprisingly, although religion and spirituality have been identified as correlates of well-being for Muslim Americans, no study to date has quantitatively examined the role of spirituality in protecting against discrimination's negative effects for Muslim American young adults. The closest available study is one of Arab American adolescents (the majority of whom identified as Muslim) (Ahmed et al., 2011). The authors of this study found a main effect of cultural resources (a combined construct of ethnic identity, religious support and religious coping) on mental health outcomes; specifically, higher levels of cultural resources predicted more positive mental health outcomes (Ahmed et al., 2011). The current study used a valid and widely used scale of spirituality to determine spirituality's potential role in buffering discrimination-related stress.

It was hypothesized that spirituality would help Muslim young adults cope with both racial and religious discrimination by encouraging them to rely on a higher power and reframe the stress they experience on account of discrimination (Lazarus & Folkman, 1984). These spiritual coping strategies may relieve feelings of powerlessness that they experience on account

of racial and religious discrimination. Therefore, spirituality may serve a protective role for Muslim American young adults experiencing racial and religious discrimination. As such, the proposed study will test the potential buffering role of spirituality on racial and religious discrimination in Muslim American young adults.

1.11 Aims and Related Hypotheses

The primary goal of the current study is to understand the concurrent effects of two different forms of discrimination – racial and religious – on Muslim young adults’ psychological outcomes. The study distinguished between racial discrimination and religious discrimination as separate constructs to determine whether perceived religious discrimination was associated with mental health above and beyond associations with ethnic/racial discrimination. Furthermore, the study hypothesized the role of spirituality as a promotive factor for Muslim American young adults, in the face of racial and religious discrimination. Lastly, within-group diversity was investigated by including race/ethnicity as a moderator.

Aim 1: To assess the independent effects of religious discrimination on psychological outcomes (including depression, anxiety and subjective well-being), above and beyond the effects of racial discrimination.

Hypothesis 1: Religious discrimination will predict a significant increment of variance in psychological outcomes after accounting for the effect of racial discrimination.

Aim 1a: Additionally, to assess whether there is an interactive effect of religious discrimination and racial discrimination which predicts variance above and beyond each independently.

Hypothesis 1a: There will be an interactive effect of racial and religious discrimination which predicts variance over and above each type of discrimination.

Aim 2: To investigate the protective role of spirituality in the discrimination-psychological outcomes relationships.

Hypothesis 2: Spirituality will be associated with lower levels of negative mental health (depression and anxiety) and higher levels of positive mental health (subjective wellbeing), either via a main (compensatory) or moderating (protective factor) effect.

Aim 3: To examine within group diversity by assessing the potential moderating role of ethnicity in the relationships between racial discrimination and religious discrimination on mental health outcomes.

Hypothesis 3: Identifying as Black/African American will exacerbate the relationships between both forms of discrimination and mental health outcomes, in comparison to participants of other racial/ethnic backgrounds.

2 Methods

2.1 Recruitment

Following IRB (Institutional Review Board) approval, participants were recruited from the Muslim community in the United States. Recruitment was conducted using Amazon MTurk. Amazon MTurk is an online platform which recruits participants and provides modest compensation for completing a survey. Participants view the post on Amazon MTurk which describes the purpose of the study, the study's inclusion criteria and a link to the survey.

Additional participants were recruited from prominent Muslim mailing lists and social media platforms based in Atlanta, GA and across the Muslim community in United States. The primary study author has connections with prominent Muslim organizations in Atlanta, GA, the San Francisco Bay Area, CA and several other major U.S. cities. The recruitment strategy was

two-pronged, include recruiting Muslim young adults specifically through age-relevant organizations and also through wider Muslim platforms (for all ages).

Age-relevant organizations include MIST (Muslim Interscholastic Tournament), college Muslim Student Associations (MSA's) at several colleges (including Georgia State University, Georgia Tech, Emory, University of California- Berkeley, and University of Florida). In order to attract a diverse Muslim sample (not limited to college students and also a sample that is ethnically diverse), administrators of platforms with large memberships of Muslims were contacted (e.g. mailing lists and social media pages for Muslims living in specific geographic locations such as Atlanta, GA and the San Francisco Bay Area, CA). Large mosques in major cities were also contacted (e.g. including Al-Farooq Masjid and Atlanta Masjid al-Islam, a predominantly African American mosque, in Atlanta, GA, and MCA in the San Francisco Bay Area, CA). Lastly, in order to attract participants who do not frequent mosques or religious organizations, social and cultural organizations were also contacted (e.g. Pakistani Student Associations and Arab associations). Administrators of mailing lists were contacted by researchers leading this study and were encouraged to send out the survey link along with a brief description of the study and a study flyer. Additionally, individuals were asked to share the flyer and study link on their personal social media platforms including Facebook, Instagram, Snapchat and WhatsApp.

2.2 Participants

Only participants who self-identified as Muslim young adults, regardless of sectarian background (e.g. Sunni, Shi'a, Sufi) between the ages of 18-30 were retained in the current study.

A total of 381 responses were collected. Of those responses, 98 were not included in the final dataset because they had missing data for all of the items of the primary study measures or they identified with a religion other than Muslim. Participants included in the final dataset had nearly complete data.

The total sample size of participants who met study criteria was $n = 283$. Sample 1 participants ($n = 38$) were directed to the study survey through Amazon MTurk and Sample 2 participants ($n = 245$) were directed through Muslim social media outlets.

2.2.1 Demographics.

The majority of the sample, 62.9% ($n = 178$), identified as female. Of the 244 participants who answered the question about sexual orientation (which was only asked of the second group of participants), 92.6% identified as heterosexual or straight, 2.5% identified as gay or lesbian, 1.6% identified as bisexual, two percent identified as other, and 1.2% preferred not to answer. The average participant age was 25.4 ($M = 25.41$, $SD = 3.56$), with 19.4% of participants between 18-21 years old, 26.2% between 22-25 years old, 31.5% between 26-28 years old, and 23% between 29-31 years old. Race categories were created based upon participants' endorsed self-identified ethnicity classifications: 9.5% identified as Black or African American, 21.2% identified as Arab or Middle Eastern, 44.9% identified as South or Southeast Asian, 14.8% identified as White and 9.5% identified as Other race/ethnicity (e.g. biracial or multiracial, East Asian, Latinx). Having race categories assisted in achieving one of the study aims to investigate the role of within-group diversity in the relationships between discrimination and mental health outcomes.

In terms of immigrant generation status, the following delineation was used to identify immigrant generation: immigrant was used to identify those who migrated to the U.S., children

of immigrants was used to identify the generation following those who migrated. Among study participants, 9.6% identified as immigrants, 63.1% identified as children of immigrants and 26.3% identified as belonging to a later immigrant generation, i.e. neither of their parents was an immigrant. Lastly, 8.9% stated that their family has lived in the U.S. for many generations and 1.1% reported that they do not know about their family's immigration history. Approximately 2% percent of participants reported having lived in a refugee camp prior to moving to the U.S. Additionally, 93.6% of participants identified as U.S. citizens. Furthermore, 17.4% of participants identified as first-generation college students, while 82.6% of participants reported that at least one of their parents attended and finished college.

2.3 Procedures

Participants first completed a questionnaire about their basic demographics. This included questions about religious identification, age, gender, state of residence, racial/ethnic background, and socioeconomic status. A test question about religious identification was included to identify Muslim participants. Participants then completed a self-report questionnaire about racial discrimination, religious discrimination, moderators under investigation (spirituality and race/ethnicity), mental health outcomes (anxiety and depression) and well-being (using a scale of life satisfaction).

The estimated time of the total survey was 15-20 minutes. Participants from Sample 1 were recruited through Amazon MTurk and were compensated approximately \$0.30 for their completion of the survey. Participants from Sample 2 who were recruited through mailing lists and social media outlets were eligible to enter a raffle drawing. Given that a limited amount of funding (\$375) was available to support study procedures, 75 \$5 Amazon eGift cards were made available to participants. A random number generator was used to select raffle winners. When

data collection was officially complete, raffle winners were compensated online on Amazon.com using the email address they provided.

2.4 Measures

Expanded Everyday Discrimination Scale (EDS; Williams et al., 1997). The Expanded Everyday Discrimination Scale (EDS) (Williams et al., 1997) was used to measure experiences of racial discrimination. The expanded version adds a 10th item (“You are followed around in stores”) to the widely used 9-item Everyday Discrimination Scale (EDS; Williams et al., 1997). This was a self-report scale based on a 6-point Likert scale (0: Never, 5: Almost every day) in which individuals are asked to respond to the question: “How often did you experience the following scenarios because of your race in the past year?” Examples of items in this scale include, “You receive poorer service than other people at restaurants or stores” or “You are threatened or harassed”. Of note, Sample 1 participants were given all 10 items but Sample 2 participants were given a 9-item scale in which item 4 “People act as if they think that you are not smart” was omitted inadvertently. Data for Sample 2 participants was imputed at the scale level for this one item, estimating using their responses for the other 9 items. Then, data for Sample 1 and Sample 2 respondents was combined; next, a mean score was calculated for this scale and the scale was centered at its mean.

While the EDS was originally used in health disparities research with African-Americans in the 1995 Detroit Area Study (Williams et al., 1997), it has been validated with different ethnic groups including Caucasians, Latinos/Hispanics, Asians and African Americans (Kim, Sellbom & Ford, 2014). This scale assesses the underlying construct of everyday discrimination or daily experiences of unfair treatment, in this case on account of race. The original study utilizing this scale demonstrated that this scale has strong internal consistency ($\alpha = .88$); in addition, other

studies have shown that this scale has good validity (Barnes et al., 2004; Taylor, Kamarck & Shiffman, 2004). For instance, in the original study, perceived racial discrimination was related to poorer self-reported physical health and lower psychological well-being, indicating convergent validity (Williams et al., 2007). The reliability of the 10-item scale for the current study was $\alpha = .95$.

The Perceived Religious Discrimination Scale (PRDS; Rippy & Newman, 2008). The Perceived Religious Discrimination Scale (PRDS) was used to assess perceived religious discrimination. This scale is based on the Race Related Stressor Scale developed by Loo et al. (2001) to measure race related stress in Asian American military veterans. It was adapted for use with Muslim Americans by Rippy and Newman (2008), changing ethnicity/race related items to items about religion. The original self-report scale includes 34-items and measures perceived religious discrimination among Muslims based on three different factors: Religious Prejudice and Stigmatization, Bicultural Identification and Conflict, and Exposure to a Religiously Discriminatory Environment. This scale has strong internal consistency; PRDS Total ($\alpha = .91$), Religious Prejudice and Stigmatization ($\alpha = .91$), Bicultural Identification ($\alpha = .82$) and Exposure to a Religiously Discriminatory Environment ($\alpha = .85$). Additionally, supporting construct validity, the scale was found to be highly correlated with reported acts of hate crimes and PTSD symptomology (Rippy & Newman, 2008).

The Religious Prejudice and Stigmatization subscale was utilized in this study as it most closely captures the construct of interest: personal experiences of religious discrimination. The current study utilized a subset of 9 items of the 22 items, as the remaining ones were inadvertently omitted. Of the omitted items, two items (item 27 and item 29 of the overall scale) assess racial discrimination rather than religious discrimination. The remaining items ask

participants to report whether they have experienced religious discrimination in specific settings (e.g. public places, stores, school/work) or from certain people (e.g. law enforcement, flight attendants). The included items generally assess the same experiences but in a broader manner. The subscale was calculated using the mean of items 1, 4, 6, 7, 8, 10, 11, 12, 13 (e.g.: “Have fellow Americans ever kept their physical distance from you because of the fact you were Muslim?”, “Have you ever observed Muslim people being stared at in a hostile or threatening manner”, “Have you ever been singled out by airport personnel, bank tellers, security, or others based on your name or Islamic attire?”). The subscale used in the current study has good face validity and has good internal consistency ($\alpha = .80$).

Daily Spiritual Experience Scale (DSES; Underwood & Teresi, 2002). The DSES is a 16-item scale measuring individuals’ daily experiences of spirituality. The DSES uses a 6-point Likert scale, with lower scores reflecting more frequent spiritual experiences. For instance, 1 = many times a day and 6 = never or almost never. Specifically, this scale investigates individuals’ perceptions of the ‘transcendent’ (e.g. God, the divine) and their own interaction with the transcendent in their daily lives. This scale focuses on measuring subjective experiences related to spirituality, rather than measuring behaviors or beliefs. Example items include “I ask for God’s help in the midst of daily activities” or “I find strength in my religion or spirituality”. Notably, in the survey, the word “God” was replaced with the Arabic term for God, “Allah”, to increase the validity of the scale for Muslim participants. In the original study population, internal consistency of this scale was high, with a Cronbach’s alpha of $\alpha = .94$ and $\alpha = .95$ (Underwood & Teresi, 2002). To ensure content validity, the items were developed following in-depth interviews and focus groups with members of various faith backgrounds. The items were further refined at a World Health Organization Working Group related to Spiritual Aspects

of Quality of Life. Individuals who reported affiliation with no religion had lower scores of DSES; this relationship between religiosity and spirituality provides some evidence for construct validity of this scale. The DSES scale was significantly positively correlated with measures of quality of life, optimism and social support and negatively correlated with anxiety, depression, alcohol consumption, stress, anger and hostility (Underwood & Teresi, 2002), supporting convergent and divergent validity, respectively. For the current study, 14 items were included in the calculation of the final scale. One item is a global measure of spirituality and uses a different Likert scale, so it was not used; one item was omitted by error. The DSES had high internal consistency in the current study $\alpha = .92$.

Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The CES-D (NIMH) is a 20-item scale measuring depressive symptoms over the past week. It uses a 4-point Likert scale, with lower scores indicating fewer depressive symptoms over the last week (0 = rarely or none of the time; less than 1 day of the week, to 3 = most or all of the time; 5-7 days). Examples of items from the scale include “I thought my life had been a failure”, “I felt lonely”, or “I did not feel like eating; my appetite was poor”. This scale was developed to screen for depressive symptoms in epidemiologic studies in the general population and has high internal consistency and validity. Of note, this measure is not typically used to independently diagnose depression but has been used as a screening tool. In the current study, the 20-item CES-D similarly had high internal consistency ($\alpha = .92$). A conservative cut-off score of 20 was used, rather than the typical cut-off of 16, due to recent studies indicating that a cut-off of 20 provides higher specificity and lower sensitivity when compared to a cut-off of 16 (Vilagut, Forero, Barbaglia & Alonso, 2016). The CES-D-20 has been found to have strong construct validity. For instance, in a study of Iraq and Afghanistan veterans, this measure performed well against the

MINI-MDD, a structured clinical interview for the diagnosis of major depression (Quiñones et al., 2016). Additionally, it has been successfully used in Muslim and Arab samples across several studies (Amer & Hovey, 2007; Hodge, Zidan & Husain, 2015). It also has strong convergent validity with other measures of depression, such as the Beck Depression Inventories (Beck, Steer, Ball & Ranieri, 1996). However, a recent study found that a revised version of the CES-D using a 3-factor, 14-item scale may more accurately map onto the current DSM-5 criteria of major depression (Carleton et al., 2013). The older version was used in the current study due to its established validity with Muslim and Arab populations.

Generalized Anxiety Disorder (GAD-7; Spitzer, Kroenke, Williams & Löwe, 2006).

The GAD-7 is a 7-item scale which assesses symptoms of generalized anxiety over the last two weeks. It uses a 4-point Likert type scale (0: Not at all, to 3: Nearly every day). Participants are asked to respond to the question: “Over the last 2 weeks, how often have you been bothered by the following problems?” Examples of items from this scale include “Feeling nervous, anxious or on edge”, “Trouble relaxing” and “Becoming easily annoyed or irritable”. Strong internal consistency ($\alpha = .92$) and test-retest reliability ($\alpha = .83$) have been established for the GAD-7 (Spitzer et al., 2006). Additionally, several studies provide support for the GAD-7’s convergent validity. For instance, in a study conducted by Löwe and colleagues (2008), the GAD-7 was significantly positively correlated with the 2-item depression module in the Patient Health Questionnaire (PHQ-2) as well as negatively correlated with the Rosenberg Self-Esteem Scale. Additionally, the GAD-7 has strong cross-cultural validity, as it has been used globally in community samples and clinical samples. The GAD-7 had high internal consistency in the current study ($\alpha = .89$).

Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen & Griffin, 1985). The Satisfaction with Life Scale is a 5-item scale measuring overall life satisfaction. It assesses the cognitive-judgmental component of life satisfaction as individuals are asked to assess their life as a whole by answering items including: “In most ways my life is close to my ideal” or “if I could live my life over, I would change almost nothing”. Participants answer these items on a 7-point Likert scale, with 1=strongly disagree and 7=strongly agree. This scale has been shown to have strong psychometric properties, including convergent validity, high internal consistency ($\alpha = .83$; Diener et al., 1985), strong test-retest reliability ($\alpha = .82$; Diener et al., 1985). The SWLS (Diener et al., 1985) will be used as a measure of subjective well-being. The SWLS had high internal consistency in the current study ($\alpha = .89$).

The Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen; 1988). The PANAS (Watson et al., 1988) is a scale developed to measure positive and negative affect – or emotional state – at a particular time point. In previous studies, this scale has been used as a measure of affect, mood and subjective well-being. This questionnaire asks participants to respond to the following statement: “Indicate to what extent you have felt this way during the past week” on a 5-point Likert type scale, with 1= very slightly or not at all, 5 =extremely by endorsing how often they have felt a variety of emotions or feelings. Emotions included in the questionnaire include 10 items measuring positive affect (PA) (e.g. enthusiastic, inspired) and 10 items measuring negative affect (NA) (e.g. irritable, distressed). This questionnaire has strong psychometric properties (Watson et al., 1988) including high internal consistency in non-patient (PA: $\alpha = .86-.90$; NA: $\alpha = .84-.87$) and patient (PA: $\alpha = .85$ and NA: $\alpha = .91$) samples. In the current study sample, the PANAS also had high internal consistency (PA: $\alpha = .86$ and NA: $\alpha = .85$). Additionally, this scale has good convergent and divergent validity (Watson et al., 1988).

Specifically, the negative affect (NA) subscale of the PANAS has been significantly associated with measures of anxiety and depression.

The NA subscale of the PANAS (Watson et al., 1988) was used as a covariate in the current study. In one entire set of analyses, NA was not used as a covariate. In the second set of analyses, NA was included and the analyses were repeated. The results section of this study reports findings without NA in analyses; however, results with NA are reported if they significantly changed the analyses. The complete analyses with NA as a covariate are included in tables in Appendix C.

2.5 Data analysis plan

2.5.1 Power analysis.

Three power analyses were conducted in G-Power to determine a sufficient sample size for the multiple regression analyses planned for the second study aim (testing spirituality as a moderator). Power analyses for linear multiple regression (A priori, F tests) were conducted, entering in average effect sizes found in the literature (Schmitt et al., 2014) for the relationships of discrimination with depression ($r = -.26$), anxiety ($r = -.25$) and well-being ($r = -.18$), respectively. Using alpha of 0.05, power of 0.80, these effect size values, and 6 predictors (covariates, racial discrimination, religious discrimination, moderator, and two interactions), the desired sample size to find effects for depression, anxiety and positive well-being are $n = 195$, $n = 211$ and $n = 414$, respectively (Faul, Erdfelder, Buchner & Lang, 2008).

Similarly, three power analyses for linear multiple regression (A priori, F tests) were conducted to determine a sufficient sample size for the third study aim (testing ethnicity as a moderator). Using alpha of 0.05, power of 0.80, the above-mentioned effect size values, and 12 predictors (gender – covariate, racial discrimination, religious discrimination, three ethnic group

comparison categories and six interactions (of each ethnic group comparison by each type of discrimination)), the desired sample size to find effects for depression, anxiety and positive well-being are $n = 242$, $n = 263$ and $n = 512$ (Faul et al., 2008).

In light of the multiple study aims, this study aimed to recruit the highest sample size required for completion of these analyses. The final sample size was $n = 283$; which provided sufficient power to detect effects for depression and anxiety, but not for well-being.

2.6 Missing Data.

Missing data analysis was conducted in SPSS. Little's (1988) test of Missing Completely at Random (MCAR) test was not significant for the following variables: religious discrimination ($\chi^2 = 77.62$, $DF = 76$, $p = .43$), depression ($\chi^2 = 172.72$, $DF = 167$, $p = .37$), spirituality ($\chi^2 = 109.68$, $DF = 137$, $p = .96$), PANAS ($\chi^2 = 128.16$, $DF = 123$, $p = .36$), GAD ($\chi^2 = 34.27$, $DF = 28$, $p = .19$). However, Little's MCAR test was significant for racial discrimination ($\chi^2 = 30.77$, $DF = 17$, $p = .02$). This is likely the case because one item was omitted from the racial discrimination questionnaire in the second study sample. When the MCAR test is significant, the hypothesis that the data are MCAR may be rejected. In sum, with the exception of one variable, there is sufficient evidence to suggest that the data are MCAR.

Missing data were imputed at the scale level as missing data at the scale level was low. For racial discrimination, all participants completed at least 8 out of 10 (80%) questions in the scale. For religious discrimination, all participants completed at least 7 of 9 questions (77.8%). For depression, all participants completed at least 16 of 20 questions (80%). For anxiety, all participants completed at least 6 of 7 questions (85.7%). For life satisfaction, there were no missing data. For spirituality, all participants completed at least 12 of 14 questions (85.7%). For

negative affect (a subscale of the PANAS), all participants completed at least 9 of 10 items (90%).

2.7 Assumptions and Correlations

Normality, collinearity, kurtosis and skewness were assessed for key study variables. Additionally, correlations among key study variables were conducted including negative affect, gender, racial discrimination, religious discrimination, ethnic group identification (African/African American, Arab/Middle Eastern, South Asian, White and Other Ethnicity), spirituality, depression, anxiety, and life satisfaction. Gender and dataset (sample) were used as covariates in all analyses. All analyses were conducted using IBM SPSS Version 25.0 (IBM Corp, 2017).

2.8 First and Second Study Aims

The first aim assessed whether or not religious discrimination predicts mental health outcomes (depression, anxiety and life satisfaction) above and beyond racial discrimination (Hunsley & Meyer, 2003). The second set of analyses addressed the second study aim by testing the possible main effect or possible moderating role of spirituality in the relationships between discrimination and mental health outcomes (depression, anxiety and life satisfaction).

2.9 Third Study Aim

The third study aim tested racial/ethnic group as a possible moderator in the relationships between racial and religious discrimination and mental health outcomes. Because the third study aim was to investigate within-group differences in discrimination and mental health outcomes and because Black (African/African American) Muslims were theorized to experience higher multiple minority stress, comparisons between Black Muslims, Arab/Middle Eastern, South Asian, White and Other (ethnic group) Muslims were made. Therefore, for the current study,

four main ethnic group comparison categories were created: Black versus Arab/Middle Eastern, Black versus South Asian, Black versus White and Black versus Other.

Before regression analyses were conducted, racial/ethnic group comparison variables were dummy coded. Black Muslims served as the reference group; in other words, other main ethnic groups were compared to Black Muslims. Dummy codes were created for each of the following racial/ethnic group comparison categories: Black versus South/Southeast Asian, Black versus Arab/Middle Eastern, Black versus White and Black versus Other. All of these racial/ethnic group comparison variables were classified as “nominal” in SPSS.

Table 1 Racial/ethnic group dummy codes

Comparison Category	Black	South/Southeast Asian	Arab/Middle Eastern	White	Other
Black vs. South/Southeast Asian	0	1	0	0	0
Black vs. Arab/Middle Eastern	0	0	1	0	0
Black vs. White	0	0	0	1	0
Black vs. Other	0	0	0	0	1

Then, six different regression models were run. Three different models were run using racial discrimination and racial group categories as the primary independent variables; similarly, three separate models were run using religious discrimination and racial group categories as the primary independent variables.

3 Results

3.1 Descriptives.

3.1.1 Group differences between Sample 1 participants and Sample 2 participants.

Sample 1 participants ($n = 38$) were directed to the study survey through Amazon MTurk.

Sample 2 participants ($n = 245$) were directed to the study through Muslim organizations' and individuals' mailing lists and social media pages. The two samples were merged into a combined dataset ($n = 283$).

Independent-samples t-tests were conducted to compare study variable results between Sample 1 and Sample 2 participants. There were no significant differences in racial discrimination, religious discrimination, depression, anxiety, and life satisfaction scores between Sample 1 and Sample 2 participants. However, there were significant differences in negative affect and spirituality between Sample 1 and Sample 2 participants. Specifically, participants in Sample 1 reported significantly lower negative affect scores ($M = 44.86$, $SD = 16.27$) compared to Sample 2 participants ($M = 59.98$, $SD = 13.38$), $t(281) = -2.08$, $p = .04$. Additionally, participants in Sample 1 reported significantly lower spirituality scores ($M = 21.71$, $SD = 8.41$) compared to Sample 2 participants ($M = 24.59$, $SD = 7.87$), $t(281) = -6.29$, $p < .01$. Because of these differences between Sample 1 and Sample 2 participants, sample was controlled for in the regression analyses.

3.1.2 Primary study variables.

On average, participants reported experiencing racial discrimination a few times per year ($M = 1.98$, $SD = 1.26$) and experiencing religious discrimination at a frequency between "sometimes" and "frequently" ($M = 2.63$, $SD = .72$). Participants reported average levels of life satisfaction ($M = 22.4$, $SD = 6.59$). The range of scores on this scale is 5-35, with 20 representing

a neutral point (scores between 5-9 indicate that the participant is extremely dissatisfied with life and scores between 31-35 indicate that the participant is extremely satisfied) (Pavot & Diener, 2008). Additionally, participants reported low to moderate levels of negative affect ($M = 24.2$, $SD = 7.99$). On average, participants reported mild anxiety ($M = 7.97$, $SD = 5.6$), and elevated levels of depressive symptoms (using clinical cut-off = 20) ($M = 20.93$, $SD = 12.22$) (Vilagut, 2016). 38.9% of participants reported scores of 0-16 which indicates no to mild depressive symptomatology, 17.6% of participants reported scores of 16-23 which indicates moderate depressive symptomatology and 43.5% of individuals reported scores of 24-60 which indicates severe depressive symptomatology. 48.4% of participants reported scores above the clinical cut-off of 20. Lastly, on average participants reported high levels of spirituality ($M = 4.14$, $SD = 1.05$), reporting positive spiritual experiences most days of the week.

3.2 Regression Assumptions.

To test for normality, P-P plots and histograms were generated for the primary study variables. P-P plots and histograms appeared normal for the following variables: racial discrimination, religious discrimination, depression, anxiety, life satisfaction, spirituality and negative affect. Negative affect was slightly positively skewed (skewed to the right), with the mean greater than the median. Given that the skew was minimal and the study had generally good power, no action was taken to address this skew.

VIF values were calculated to test whether or not there was multicollinearity between racial and religious discrimination. The VIF between these two types of discrimination was 1.84, which indicates that multicollinearity between the two variables was not a major problem. A VIF of 1 indicates that variables are not correlated, a VIF between 1-5 indicates moderate multicollinearity and a VIF greater than 5 indicates high multicollinearity. Of note, there was a

strong positive correlation between racial and religious discrimination ($r = .68, p < .01$), indicating that there is overlap between these constructs, as expected. Therefore, while multicollinearity likely did not affect reliability of regression analyses, interpretation of results should take into account the correlation between these constructs.

3.3 Correlations.

Bivariate correlations among primary study variables are presented in Table 1. Racial discrimination was positively correlated with religious discrimination, depression, anxiety, negative affect, age and White racial/ethnic group; it was negatively correlated with life satisfaction and spirituality, and South/Southeast Asian racial/ethnic group. Religious discrimination was positively associated with depression, anxiety, negative affect and White racial/ethnic group; it was negatively associated with life satisfaction and spirituality. Depression was positively correlated with anxiety and was negatively correlated with life satisfaction. Gender (coded as 1: male, 2: female) was significantly related with spirituality; in other words, female gender was related to higher levels of spirituality.

Table 2 Correlations Among Key Study Variables (N = 283).

Variables	1	2	3	4	5	6	7	8	9
1. Racial discrimination	—								
2. Religious discrimination	.68**	—							
3. Depression	.41**	.38**	—						
4. Anxiety	.30**	.34**	.74**	—					
5. Life Satisfaction	-.21*	-.18**	-.60**	-.53**	—				
6. Neg. Affect	.24**	.27**	.72**	.68**	-.44**	—			
7. Spirituality	-.17**	-.12*	-.30**	-.18**	.19**	-.11	—		
8. Gender	.01	.02	-.09	.10	-.02	-.04	.19**	—	
9. Age	.20**	.07	-.11	-.10	.12*	-.12	-.06	-.01	—

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

3.4 Racial group differences amongst study variables.

A one-way between subjects ANOVA was conducted to compare racial group differences in racial discrimination, religious discrimination, negative affect, depression, anxiety, life satisfaction and spirituality among study participants identifying with Black, Middle Eastern/Arab, White, South/Southeast Asian, and Other racial group categories (see Tables 2-5).

Table 3 Means and Standard Deviations on measures of Racial Discrimination and Religious Discrimination as a Function of Race

Race	n	Racial discrimination		Religious discrimination	
		Mean	Standard Deviation	Mean	Standard Deviation
Black	27	22.58	12.01	24.22	6.52
Middle Eastern/Arab	60	18.36	12.30	22.22	6.91
White	42	25.40	8.98	25.81	5.15
South/Southeast Asian	127	18.08	13.17	23.48	6.77
Other	27	19.43	14.04	23.95	5.76

Table 4 Means and Standard Deviations on measures of Depression and Anxiety

Race	n	Depression		Anxiety	
		Mean	Standard Deviation	Mean	Standard Deviation
Black	27	22.16	12.18	8.35	5.06
Middle Eastern/Arab	60	19.17	11.96	7.09	5.68
White	42	28.20	7.71	9.76	2.74
South/Southeast Asian	127	19.04	12.34	7.44	6.06
Other	27	21.22	14.25	9.26	6.36

Table 5 Means and Standard Deviations on measures of Life Satisfaction and Spirituality

Race	n	Life Satisfaction		Spirituality	
		Mean	Standard Deviation	Mean	Standard Deviation
Black	27	22.22	5.85	60.04	13.34
Middle Eastern/Arab	60	22.68	6.62	60.16	16.67
White	42	21.43	3.51	52.24	8.21
South/Southeast Asian	127	22.83	7.34	58.10	14.60
Other	27	21.37	7.31	59.07	18.11

Table 6 Means and Standard Deviations on measures of Negative Affect

Race	n	Negative Affect	
		Mean	Standard Deviation
Black	27	24.99	8.22
Middle Eastern/Arab	60	22.59	7.44
White	42	28.17	5.34
South/Southeast Asian	127	23.41	8.30
Other	27	24.59	9.26

The assumption of homogeneity of variance was tested using Levene's Test and found tenable for religious discrimination. However, the assumption of homogeneity of variance was violated for the remaining variables (racial discrimination, negative affect, depression, anxiety, life satisfaction and spirituality); therefore, Welch's Test was reported for these variables.

There was a significant effect of racial group on racial discrimination, $F(4, 86.96) = 4.79, p = .002$; negative affect, $F(4, 86.30) = 6.27, p < .001$; depression, $F(4, 86.30) = 9.22, p < .001$;

anxiety, $F(4, 88.01) = 4.09, p = .004$; and spirituality, $F(4, 86.72) = 4.44, p = .003$. There was no significant effect of racial group on religious discrimination, $F(4, 278) = 1.99, p = .10$ or life satisfaction, $F(4, 88.65) = .87, p = .49$.

Post hoc comparisons were conducted using the Tukey HSD test for group differences. Participants who identified as White reported significantly higher racial discrimination, negative affect, and depression than participants who identified as Middle Eastern/Arab and South Asian. For religious discrimination, participants who identified as White reported significantly higher scores than participants who identified as Middle Eastern/Arab. For anxiety, life satisfaction and spirituality, Tukey's HSD test did not indicate significant group differences.

3.5 Hierarchical regressions.

3.5.2 Study Covariates.

Of note, in all hierarchical regressions in the current study, two sets of analyses were conducted. One set of analyses did not include negative affect as a covariate and the other set of analyses did include negative affect as a covariate. Analyses controlling for negative affect are included in the current results section only if they significantly changed analyses. The full results tables with analyses including negative affect as a covariate are included in the Appendix.

Gender was included as a covariate in all analyses given the robust research finding related to gender differences in mental disorders. Specifically, women across all age cohorts and countries report higher rates of internalizing disorders such as depression and anxiety, in comparison to men (Seedat et al., 2009). There are multiple possible explanations for gender differences in mental disorders, including higher rates of gender-based violence experienced by women, differences in sex hormones and variations in gender roles (Riecher-Rossler, 2017). Regardless of which pathways most significantly influence these gender differences, the

existence of these gender differences warranted that gender should be included as a covariate in the current study, particularly given that the majority of study participants identify as women and that outcome variables are primarily internalizing disorders (depression and anxiety).

3.5.2 *Aim 1.*

The first aim of this study was to test whether religious discrimination would predict depression, anxiety and life satisfaction above and beyond racial discrimination. Additionally, a sub-aim was to test whether there was an interactive effect of racial and religious discrimination on these three outcomes.

Gender and dataset were entered in Step 1, racial discrimination was entered in Step 2, religious discrimination was entered in Step 3 and the interaction between racial and religious discrimination was entered in Step 4 of each model.

Table 1 Aim 1 Hierarchical Regression Results Investigating Concurrent Racial and Religious Discrimination

Predictors	DV: Depression					DV: Anxiety					DV: Life Satisfaction				
	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F
Step 1				.01	1.05				.02	2.14				.001	.12
Gender	-2.08	1.54	-.08			.93	.70	.08			-.36	.83	-.03		
Dataset Number	-.47	2.18	-.01			1.27	.99	.08			.35	1.18	.02		
Step 2				.17	57.93**				.09	28.24**				.04	12.88**
Gender	-2.08	1.40	-.08			.93	.67	.08			-.36	.82	-.03		
Dataset Number	-.93	1.99	-.03			1.11	.95	.07			.48	1.16	.03		
Racial discrimination	.40	.05	.41**			.13	.03	.30**			-.11	.03	-.21**		
Step 3				.02	6.79*				.03	10.53**				.002	.68
Gender	-2.20	1.39	-.09			.86	.66	.07			-.34	.82	-.03		
Dataset Number	-.79	1.97	-.02			1.20	.93	.07			.45	1.16	.02		
Racial discrimination	.28	.07	.29**			.06	.03	.14			-.09	.04	-.17*		
Religious discrimination	.36	.14	.19*			.21	.07	.25**			-.07	.08	-.07		
Step 4				.00	.04				.00	.12				.00	.001
Gender	-2.21	1.39	-.09			.85	.66	.07			-.34	.82	-.03		
Dataset Number	-.75	1.98	-.02			1.23	.94	.08			.45	1.16	.02		
Racial discrimination	.27	.07	.28**			.06	.03	.13			-.09	.04	-.17*		
Religious discrimination	.36	.14	.19*			.21	.07	.25**			-.07	.08	-.07		
Interaction: Racial disc. x religious disc.	.001	.01	.01			.001	.003	.02			.00	.004	-.001		
F Total					13.66**					8.91**					2.75*

Note: Racial discrimination and religious discrimination were centered at their means.

* $p < .05$. ** $p < .01$.

Depression. In the second step of the model, after accounting for non-significant contributions of gender and sample, racial discrimination ($\beta = .41$, $p < .001$) contributed a significant increment in explained variance in depressive symptoms ($\Delta R^2 = .17$, $F(1, 279) = 57.93$, $p < .001$). In the third step of the model, racial discrimination ($\beta = .29$, $p < .001$) and religious discrimination ($\beta = .19$, $p = .01$) were both significant predictors of depression. The

addition of religious discrimination contributed a significant increment in explained variance over and above the effect of racial discrimination ($\Delta R^2 = .02$, $F(1, 278) = 6.79$, $p = .01$). Lastly, in the fourth step of the model, the inclusion of the racial discrimination x religious discrimination interaction did not explain a significant amount of variance, indicating that the joint effect of these two types of discrimination did not contribute to explaining depressive symptoms beyond their independent contributions ($\Delta R^2 = .00$, $F(1, 277) = .04$, $p = .84$). Of note, when analyses were run with negative affect as a covariate in the model, religious discrimination was no longer a significant predictor in Step 3 ($\beta = .06$, $p > .05$) or Step 4 ($\beta = .07$, $p > .05$).

Anxiety. After accounting for non-significant contributions of gender and sample, the inclusion of racial discrimination ($\beta = .30$, $p < .001$) in Step 2 contributed a significant increment in explained variance in anxiety symptoms ($\Delta R^2 = .09$, $F(1, 279) = 28.24$, $p < .001$). In Step 3, the inclusion of religious discrimination ($\beta = .25$, $p = .001$) contributed a significant increment in explained variance over and above the effect of racial discrimination ($\Delta R^2 = .03$, $F(1, 278) = 10.53$, $p = .001$). However, after including religious discrimination, the regression weight for racial discrimination was no longer significant ($\beta = .14$, $p = .08$). Lastly, in the fourth step of the model, the inclusion of the racial discrimination x religious discrimination interaction ($\beta = .02$, $p = .73$) in Step 4 did not explain a significant amount of variance, indicating that the joint effect of these two types of discrimination did not contribute to explaining anxiety symptoms beyond their independent contributions ($\Delta R^2 = .00$, $F(1, 277) = .12$, $p = .73$).

Life Satisfaction. After accounting for non-significant contributions of gender and sample, the inclusion of racial discrimination ($\beta = -.21$, $p < .001$) in Step 2 contributed a significant increment in explained variance in life satisfaction ($\Delta R^2 = .04$, $F(1, 279) = 12.88$, $p <$

.001). The inclusion of religious discrimination ($\beta = -.07, p = .41$) in Step 3 did not contribute a significant increment in explained variance over and above the effect of racial discrimination ($\beta = -.17, p = .04$) ($\Delta R^2 = .002, F(1, 278) = .68, p = .41$). Lastly, in the fourth step of the model, the inclusion of the racial discrimination x religious discrimination interaction ($\beta = -.001, p = .98$) did not explain a significant amount of variance, indicating that the joint effect of these two types of discrimination did not contribute to explaining life satisfaction ($\Delta R^2 = .00, F(1, 277) = .001, p = .98$). Notably, when analyses were run with negative affect as a covariate, racial discrimination remained significant in Step 2, but was no longer significant in Step 3 ($\beta = -.12, p > .05$) and Step 4 ($\beta = -.12, p > .05$) of the model.

3.5.3 Aim 2

The second aim of this study was to test whether spirituality would have a main effect or a moderating effect on the associations between discrimination and mental health outcomes. Three multiple regressions, one each for depression, anxiety and life satisfaction were estimated (see Table 7). Gender and sample were entered in Step 1, racial discrimination, religious discrimination and spirituality were entered in Step 2, and the interaction terms between racial discrimination x spirituality and religious discrimination x spirituality were entered in Step 3 of each model.

Table 2 Aim 2 *Hierarchical Regression Results Investigating Racial Discrimination, Religious Discrimination and Spirituality*

Predictors	DV: Depression					DV: Anxiety					DV: Life Satisfaction				
	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F
Step 1				.01	1.05				.02	2.14				.001	.12
Gender	-2.08	1.54	-.08			.93	.70	.08			-.36	.83	-.03		
Dataset Number	-.47	2.18	-.01			1.27	.99	.08			.35	1.18	.02		
Step 2				.24	29.41**				.16	17.33**				.07	7.14**
Gender	-1.46	1.36	-.06			1.13	.65	.10			-.63	.81	-.05		
Dataset Number	2.11	2.03	.06			2.27	.97	.14*			-.66	1.21	-.03		
Racial discrimination	.23	.07	.24**			.04	.03	.10			-.07	.04	-.13		
Religious discrimination	.36	.13	.19**			.21	.06	.25**			-.07	.08	-.07		
Spirituality	-.20	.05	-.24**			-.08	.02	-.20**			.08	.03	.18**		
Step 3				.01	.85				.01	1.09				.002	.37
Gender	-1.33	1.37	-.05			1.22	.66	.11			-.60	.82	-.04		
Dataset Number	1.75	2.05	.05			2.09	.98	.13*			-.55	1.23	-.03		
Racial discrimination	.25	.07	.26**			.05	.03	.12			-.07	.04	-.14		
Religious discrimination	.33	.14	.17*			.19	.07	.23**			-.06	.08	-.06		
Spirituality	-.21	.05	-.25**			-.08	.02	-.20**			.08	.03	.17**		
Interaction: Racial disc. x spirituality	-.01	.01	-.07			-.003	.002	-.10			.00	.003	.00		
Interaction: Religious disc. x spirituality	.01	.01	.09			.01	.004	.10			-.003	.01	-.05		
F Total					13.23**					8.46**					3.19**

Note: Racial discrimination, religious discrimination and spirituality were centered at their means.

* $p < .05$. ** $p < .01$.

Depression. After accounting for the non-significant contributions of gender and sample, racial discrimination ($\beta = .24$, $p = .001$), religious discrimination ($\beta = .19$, $p = .008$) and spirituality ($\beta = -.24$, $p < .001$) were significantly related with depression in Step 2 of the model. The interaction terms added in Step 3 between racial discrimination x spirituality ($\beta = -.07$, $p = .30$) and religious discrimination x spirituality ($\beta = .09$, $p = .20$) were nonsignificant. These findings suggest that spirituality has a compensatory role, counteracting the ill effects of

religious and racial discrimination on depression. When negative affect was included as a covariate in the model, religious discrimination was no longer significant in Step 2 ($\beta = .06$, $p = .21$) or Step 3 ($\beta = .07$, $p = .21$) of the regression.

Anxiety. In the first step of the model, neither gender nor sample significantly predicted anxiety. In the second step of the model, gender remained nonsignificant but sample became a significant predictor ($\beta = .14$, $p = .02$). Racial discrimination ($\beta = .10$, $p = .19$) was a nonsignificant predictor but religious discrimination ($\beta = .25$, $p = .001$) and spirituality ($\beta = -.20$, $p = .001$) were significantly related with anxiety. In the third step of the model, the interaction terms between racial discrimination x spirituality ($\beta = -.10$, $p = .18$) and religious discrimination x spirituality ($\beta = .10$, $p = .17$) were both nonsignificant. With the inclusion of negative affect as a covariate, religious discrimination remained significant in Step 2 and Step 3.

Life Satisfaction. After accounting for the non-significant contributions of gender and sample, in Step 2 racial discrimination ($\beta = -.13$, $p = .09$) and religious discrimination ($\beta = -.07$, $p = .41$) were nonsignificant predictors but spirituality was a significant predictor of life satisfaction ($\beta = .18$, $p = .006$). In the third step of the model, the interaction terms between racial discrimination x spirituality ($\beta = .00$, $p = 1.00$) and religious discrimination x spirituality ($\beta = -.05$, $p = .52$) were both nonsignificant.

3.5.4 Aim 3.1

The third aim of the study was to test whether racial/ethnic identification would moderate the relationship between both types of discrimination (racial and religious discrimination) and the three outcome variables (depression, anxiety and life satisfaction). In Aim 3.1, racial discrimination was the primary independent variable of interest. Three multiple regressions with three separate outcome variables (depression, anxiety and life satisfaction) were utilized to

conduct Aim 3.1 of the study (see Table 8). Gender and dataset were entered in Step 1, racial discrimination, and racial/ethnic group comparison dummy codes were entered in Step 2 and interaction terms between racial discrimination and each of the dummy coded racial groups were entered in Step 3 of each model.

Table 3 Aim 3.1 *Hierarchical Regression Results with Racial Discrimination and Racial/Ethnic Group as a Moderator*

Predictors	DV: Depression					DV: Anxiety					DV: Life Satisfaction				
	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F
Step 1				.01	1.05				.02	2.14				.001	.12
Gender	-.208	1.54	-.08			.93	.70	.08			-.36	.83	-.03		
Dataset Number	-.47	2.18	-.01			1.27	.99	.08			.35	1.18	.02		
Step 2				.20	13.91**				.11	7.01**				.05	2.82*
Gender	-.31	1.51	-.01			1.46	.72	.13*			-.60	.89	-.04		
Dataset Number	-.248	2.08	-.07			.77	1.0	.05			.57	1.23	.03		
Racial discrimination	.36	.05	.38**			.12	.03	.28**			-.11	.03	-.20**		
Arab/Middle Eastern (ME) vs. Black	-2.0	2.61	-.07			-.65	1.26	-.05			.19	1.54	.01		
White vs. Black	5.04	2.77	.15			1.46	1.33	.09			-.70	1.63	-.04		
South/Southeast Asian vs. Black	-1.45	2.37	-.06			-.65	1.14	-.06			.27	1.40	.02		
Other Racial Group vs. Black	-.13	3.03	-.003			1.25	1.46	.07			-1.03	1.79	-.05		
Step 3				.02	2.02				.01	.77				.02	1.10
Gender	.26	1.52	.01			1.58	.74	.14*			-.91	.90	-.07		
Dataset Number	-.262	2.08	-.07			.80	1.01	.05			.72	1.24	.04		
Racial discrimination	.28	.18	.29			.09	.09	.19			-.24	.11	-.46*		
Arab/ME vs. Black	-2.08	2.63	-.07			-.68	1.28	-.05			-.21	1.57	-.01		
White vs. Black	2.93	2.97	.09			1.23	1.44	.08			-.72	1.77	-.04		
South/Southeast (SE) Asian vs. Black	-1.92	2.39	-.08			-.77	1.16	-.07			.01	1.42	.001		
Other Racial Group vs. Black	-.53	3.04	-.01			1.10	1.48	.06			-1.32	1.81	-.06		
Interaction: Racial disc. x Arab/ME	.25	.21	.11			.09	.10	.10			.09	.13	.08		
Interaction: Racial disc. x White	.45	.26	.15			.07	.13	.05			.06	.16	.03		
Interaction: Racial disc. x South/SE Asian	.03	.19	.02			.04	.09	.06			.17	.12	.23		
Interaction: Racial disc. x Other Racial Group	-.12	.24	-.04			-.06	.12	-.05			.25	.14	.16		
F Total					7.39**					3.88**					1.70

Note: Racial discrimination was centered at its mean.

* $p < .05$. ** $p < .01$.

Depression. In Step 2, racial discrimination ($\beta = .38$, $p < .001$) significantly predicted depressive symptoms, but racial groups and covariates were unrelated to depressive symptoms. In the third step of the model, all variables, including interaction terms, were nonsignificant.

Anxiety. In Step 2, gender ($\beta = .13, p = .04$) and racial discrimination ($\beta = .28, p < .001$) significantly predicted anxiety symptoms while sample and racial groups were nonsignificant. In the third step of the model, gender remained a significant predictor of anxiety but sample, racial discrimination, all four racial groups and all interactions were nonsignificant predictors. When negative affect was included as a covariate in the model, gender became a significant predictor in Step 1 of the model ($p < .01$).

Life Satisfaction. In Step 2, racial groups were all nonsignificant predictors; however, racial discrimination ($\beta = -.20, p = .001$) significantly predicted lower life satisfaction. In the third step of the model, racial discrimination remained a significant predictor but no other variables, including interaction terms, were significant. With the addition of negative affect as a covariate in the model, racial discrimination was still significant in Step 2.

3.5.5 Aim 3.2

Aim 3.2 of the study was to test whether racial/ethnic group moderates the relation between religious discrimination and the three outcome variables (depression, anxiety and life satisfaction). In Aim 3.2, religious discrimination was the independent variable. Three multiple regressions, one each for depression, anxiety and life satisfaction were estimated (see Table 9). Gender and dataset were entered in Step 1, religious discrimination, and racial/ethnic group comparison dummy codes were entered in Step 2 and interaction terms between religious discrimination and each of the dummy coded racial groups were entered in Step 3 of each model.

Table 4 Aim 3.2 *Hierarchical Regression Results with Religious Discrimination and Racial/Ethnic Group as a Moderator*

Predictors	DV: Depression					DV: Anxiety					DV: Life Satisfaction				
	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F
Step 1				.01	1.05				.02	2.14				.001	.12
Gender	-2.08	1.54	-.08			.93	.70	.08			-.36	.83	-.03		
Dataset Number	-.47	2.18	-.01			1.27	.99	.08			.35	1.18	.02		
Step 2				.19	12.57**				.14	8.80**				.04	2.17
Gender	-.21	1.52	-.01			1.43	.71	.12*			-.64	.89	-.05		
Dataset Number	-2.04	2.10	-.06			.97	.99	.06			.47	1.24	.02		
Religious discrimination	.66	.10	.35**			.27	.05	.32**			-.17	.06	-.17**		
Arab/Middle Eastern (ME) vs. Black	-2.12	2.64	-.07			-.58	1.24	-.04			.27	1.55	.02		
White vs. Black	5.04	2.79	.15			1.36	1.31	.09			-.74	1.64	-.04		
South/Southeast Asian vs. Black	-2.62	2.38	-.11			-.99	1.12	-.09			.63	1.40	.05		
Other Racial Group vs. Black	-1.04	3.05	-.03			.97	1.43	.05			-.76	1.80	-.03		
Step 3				.02	1.99				.02	1.46				.01	.55
Gender	.16	1.51	.01			1.56	.71	.14*			-.72	.90	-.05		
Dataset Number	-2.14	2.10	-.06			.94	.99	.06			.47	1.24	.03		
Religious discrimination	1.14	.33	.61**			.48	.16	.56**			-.38	.20	-.38		
Arab/ME vs. Black	-1.78	2.64	-.06			-.52	1.24	-.04			.05	1.57	.003		
White vs. Black	5.32	2.86	.16			1.54	1.35	.10			-.89	1.70	-.05		
South/Southeast (SE) Asian vs. Black	-2.48	2.37	-.10			-.91	1.12	-.08			.54	1.41	.04		
Other Racial Group vs. Black	-1.00	3.04	-.02			.99	1.43	.05			-.89	1.81	-.04		
Interaction: Religious disc. x Arab/ME	-.40	.39	-.11			-.24	.19	-.14			.14	.23	.07		
Interaction: Religious disc. x White	-.44	.47	-.08			-.22	.22	-.08			.22	.28	.07		
Interaction: Religious disc. x South/SE Asian	-.73	.36	-.27*			-.28	.17	-.23			.27	.22	.19		
Interaction: Religious disc. x Other Racial Group	.16	.50	.02			.09	.24	.03			.31	.30	.08		
F Total					6.75**					5.00**					1.20

Note: Religious discrimination was centered at its mean.

* $p < .05$. ** $p < .01$

Depression. In the Step 2, all four racial groups were all nonsignificant predictors but religious discrimination ($\beta = .35$, $p < .001$) significantly predicted depression. In the third step of the model, covariates and all four racial groups remained nonsignificant predictors while religious discrimination remained significant ($\beta = .61$, $p = .001$). Furthermore, only the

interaction between religious discrimination x South/Southeast Asian vs. Black ($\beta = -.27, p = .046$) reached significance. The third step of the model accounted for 2% of additional variance in depression, $\Delta R^2 = .02, F(4, 271) = 1.99, p = .096$. Given that the third step of the model did not predict significant additional variance, simple slopes analysis was not conducted. With negative affect included as a covariate in the model, religious discrimination was only significant in Step 2 of the regression ($p < .01$). The interaction between religious discrimination and Black versus South/Southeast Asian participants became non-significant in Step 3 ($p = .46$).

Anxiety. In Step 2, gender ($\beta = .12, p = .045$) and religious discrimination ($\beta = .32, p < .001$) were significant predictors of anxiety symptoms while sample and racial groups were nonsignificant. In Step 3 of the model, gender and religious discrimination remained significant predictors while no other variables or interactions were significant.

Life Satisfaction. In Step 2, racial groups were nonsignificant predictors but religious discrimination ($\beta = -.17, p = .006$) significantly predicted life satisfaction. In the third step of the model, none of the variables significantly predicted life satisfaction. When negative affect was included as a covariate in the model, religious discrimination was no longer a significant predictor in Step 2 of the model.

4 Discussion

4.1 Overview

While both perceived racial and religious discrimination were found to significantly predict negative mental health outcomes, unique roles of each were found in predicting self-reported depression and anxiety. With the inclusion of negative affect as a covariate in analyses, racial discrimination uniquely predicted depressive symptoms while religious discrimination uniquely predicted anxiety. These results will be discussed further, in light of related literature,

possible third variables, overlapping variance between measures used and theories of depression and anxiety.

Spirituality had a compensatory effect on mental health, which is a contribution to the resilience literature related to spirituality in Muslim young adults. Additionally, some noteworthy intra-group differences emerged, particularly in rates of discrimination and mental health outcomes. The implications of these results are explored in detail below. Implications and limitations of the study are also discussed.

4.2 Group differences.

4.2.1 Racial and religious discrimination.

Tests of group differences (ANOVAS) revealed, somewhat surprisingly, that White participants reported higher racial discrimination scores compared to Middle Eastern/Arab and South Asian participants. Additionally, White participants reported higher religious discrimination compared to Middle Eastern/Arab participants. One possible explanation is that White Muslim participants may report higher rates of racial and religious discrimination due to their experience of being a minority within the Muslim American community. This finding corroborates a finding from a recent study of racial/ethnic differences in perceptions of discrimination among Muslim Americans. Zainiddinov (2016) found that White Muslim men reported higher discrimination in comparison to White, Black and Asian Muslim women. However, this study found that Latinx/Hispanic Muslims reported the highest levels of discrimination compared to all other racial/ethnic groups. The study conducted by Zainiddinov (2016) found that, overall, racial/ethnic minorities had higher odds of reporting discrimination compared to White Muslims.

The finding from the current study is surprising because it would be expected that rates of racial discrimination would be higher overall for individuals of racial/ethnic minority backgrounds compared to Whites given that White individuals have been found to perceive lower rates of discrimination towards their group (Barnes et al., 2004; Harris et al., 2004). However, it is possible that participants identifying with racial/ethnic minority backgrounds have experienced persistent discrimination at such high rates over the years that they minimize or underreport discrimination compared with White Muslims for whom discrimination may be a more recent experience, particularly if they are recent converts to Islam.

Additionally, although the current study did not inquire about convert status, it is possible that many of the White participants are converts to Islam and perceive discrimination from other Muslims, most of whom are not White. One qualitative study of White Muslims in Britain based on in-depth interviews with 37 participants found that while White Muslims reported benefiting from White privilege in certain contexts, they also experience feelings of inferiority or being an outsider in mostly ethnic minority Muslim settings (Moosavi, 2015). Many participants reported feeling that they were not fully welcome in the Muslim community nor do they fully fit in to the mainstream White culture due to their new Muslim identity and lifestyle. Future studies should clarify whether White converts perceive discrimination due to their experience of being newer to the Muslim community. Additionally, the relationship between discrimination and mental health outcomes should be examined specifically for converts to the faith. Future studies should try to parse apart the experiences of inter-group and intra-group discrimination; in other words, it would be worthy to investigate possible experiences of intra-group discrimination amongst Muslim Americans.

4.2.2 *Negative affect, depression and anxiety.*

Similarly, White participants reported higher scores of negative affect and depression compared to Middle Eastern/Arab and South Asian participants. Epidemiological studies of mental health in the general population have found that Whites tend to report higher lifetime risk of depression compared to Black and Latinx populations (Budhwani, Hearld & Chavez-Yenter, 2015). However, it is important to note that, compared to White populations, depression in minority populations including Black and Latinx populations is more likely to be persistent (Breslau et al., 2006). For instance, a study comparing experiences of depression between White and Black participants found that Black participants are more likely to cite their experiences of depression as more serious and disabling (Williams et al., 2007). Furthermore, while the prevalence of mental illness is not higher for minorities, there is evidence to suggest that individuals of minority backgrounds and individuals experiencing poverty endorse more negative psychological symptoms than their White counterparts (Mental Health: Culture, Race, and Ethnicity-A Supplement to Mental Health: A Report of the Surgeon General, 2001). Therefore, contrary to extant epidemiological findings, the current study found the opposite finding about severity of symptoms. Specifically, White participants in this study reported significantly higher levels of *symptoms* of depression. Given that the current study is cross-sectional, it does not capture longitudinal lifetime risk of mental health problems. Future studies should assess the longitudinal associations between discrimination and mental health as well as assessing for symptom severity.

Additionally, according to a 2015 National Healthcare Quality and Disparities Report, for individuals with any mental illness, the proportion of White individuals receiving mental health services was higher (48%) compared to minority populations including Black (31%), Hispanic

(31%) and Asian (22%) populations; the only exception was for those identifying with two or more racial/ethnic backgrounds (46%) (Agency for Healthcare Research and Quality, 2016). Additionally, racial/ethnic minority groups have lower rates of mental health services utilization and higher dropout rates compared to White individuals (Lo, Cheng & Howell, 2014; McGuire and Mirana, 2008). These mental health utilization disparities may be due to structural issues in accessing these services, such as availability of resources (e.g. health insurance) or due to mental health stigma in minority communities. It is possible that racial/ethnic minorities in this study may have underreported mental health problems compared to White individuals due to less familiarity with mental health, reduced access to mental health resources or stigma related to mental health, hence the higher reports of depression among the study's White participants. When investigating racial/ethnic group differences in mental health outcomes, future studies should consider variables such as mental health stigma and access in rates of reporting.

4.2.3 Life satisfaction and spirituality.

There were no significant racial group differences in life satisfaction and spirituality among participants. Participants reported average levels of life satisfaction and high levels of spirituality. This finding confirms findings that faith is important for young Muslim Americans. A 2017 Pew Research survey found that 66% of Muslim millennials rated religion as “very important” in their lives and 44% of them reported attending religious services weekly (Pew Research Center, 2017). These findings were comparable for Muslim older adults.

While the current study confirms this finding about the centrality of spirituality in the lives of Muslim American young adults, one limitation of research studies (including the current study) on Muslim Americans is that they tend to recruit primarily from faith-based organizations, which includes faith-based student organizations, mosques and Muslim mailing lists and/or

social media pages. Further, the majority of participants in these studies, including the current study, are recruited from urban settings, where there is a larger Muslim community, and therefore a greater likelihood of engagement with the Muslim community. Thus, it is likely that observant Muslims are overrepresented in the sample.

4.3 Differential Effects of Perceived Racial and Religious Discrimination.

Perceived racial and religious discrimination were strongly correlated. This is not surprising given that experiences of discrimination are often difficult to disentangle. Due to the nature of systematic racism/discrimination in the United States and because most Muslim Americans identify as belonging to multiple minority backgrounds, it is also understandable that participants who reported one type of discrimination were more likely to report another type of discrimination.

The first aim of the current study investigated whether or not racial and religious discrimination differentially predicted depression, anxiety, and life satisfaction. Most of the current literature on discrimination utilizes one measure of discrimination, most commonly a measure of racial discrimination. The current study utilized two separate measures of discrimination (racial and religious discrimination), which is a strength of the study.

Confirming the study hypothesis, even in the presence of racial discrimination, religious discrimination contributed unique variance to explaining symptoms of depression and anxiety, but not life satisfaction. These results indicate that, when measured concurrently, racial and religious discrimination both predict depression independently. When measured concurrently, religious discrimination and *not* racial discrimination predicted anxiety. Racial discrimination predicted lower life satisfaction but religious discrimination did not contribute additional variance to the model.

When analyses included negative affect as a covariate, only perceived racial discrimination predicted depression while only perceived religious discrimination predicted anxiety. There may be unique pathways between each type of discrimination and these divergent mental health outcomes. However, there may be other factors influencing these outcomes, which are discussed further.

4.3.1 Sociopolitical Climate: Why is religious discrimination different?

It is possible that the experience of religious discrimination has a pervasive negative effect, contributing to both depressive and anxiety symptoms in Muslim Americans. However, when perceived racial and religious discrimination were measured concurrently, it is noteworthy that only religious discrimination predicted anxiety. There are several possible reasons for this finding, including the current sociopolitical context in the U.S. and overlapping measures for perceived religious discrimination and anxiety.

In terms of context, with relation to Muslim Americans, the current political climate is openly rife with Islamophobia. With the existence of policies such as the Muslim ban which the President signed within a few days of taking political office in 2016, it is not surprising that religious discrimination is especially predictive of anxiety, a phenomenon which is related to fear, uncertainty and worry. A discourse analysis examining Donald Trump's rhetoric during the 2016 Presidential election found that he commonly represented Islam and Muslims as the "other", as a negative phenomenon and as antithetical to American values (Khan et al., 2018). Additionally, a study found that Mr. Trump's tweets related to Islam and Muslims were significantly correlated with an increase in anti-Muslim hate crimes following the 2016 election (Müller & Schwarz, 2019). Further, Müller & Schwarz (2019) found that weekly hate crimes against Muslims doubled under Trump's administration compared to under the Obama

administration; the increased presence of hate crimes which are religion-based reduce feelings of safety and increase feelings of insecurity. In a study investigating Islamophobia following the 2016 Presidential election, Abu-Ras, Suarez & Abu-Bader (2018) found perceived religious discrimination was significantly reduced sense of safety in a sample of 1,130 Muslim Americans. In light of a climate of religious discrimination towards Muslims, religious discrimination may be particularly salient for the mental health and well-being of Muslim Americans. For example, a Muslim who has family in a country affected by the travel ban may feel worried about not being able to see family members for a long period of time. Further, a Muslim may worry about being targeted in a hate crime due to their religion, which may increase avoidance and hypervigilance. The current study extends findings from the current literature through the finding of religious discrimination uniquely predicting anxiety. Further, the study's utilization of a valid and reliable measure of generalized anxiety disorder provides a more convincing link between religious discrimination and anxiety.

4.3.2 Overlapping variance between constructs of PRDS and GAD-7

Another explanation regarding the unique effect of perceived religious discrimination on anxiety relates to the measures used to study these constructs. It is possible that the measures of PRDS and anxiety overlap to a large extent. Correlations between PRDS and anxiety demonstrate that these variables are correlated ($r = .34, p < .01$). Additionally, when the items included in the PRDS subscale used in the current study are compared with the items included in the Everyday Discrimination Scale (EDS) used to measure racial discrimination, the items in the PRDS provide a greater level of affective content or priming compared to the items in the EDS which are more behavioral at face value. For instance, the PRDS subscale used in the current study includes items such as "Have you ever observed Muslim people being stared at in a *hostile*

or threatening manner?” and “Do you ever *fear being out in public alone* while dressed in Islamic dress (hijab/niqab, jilbab, full beard, Islamic clothing)?”. These items already include terms related to threat, fear and anxiety in the scale. As for the questionnaire used to measure anxiety (GAD-7), items are symptoms of anxiety such as “feeling nervous, anxious or on edge” or “trouble relaxing”. It is possible that if another measure without fear-related wording were used to measure PRDS that there would have been a weaker predictive effect of PRDS on anxiety.

4.3.3 Third Variables

There are likely third variables influencing the relationships between perceived racial discrimination and religious discrimination and mental health outcomes. The current study used negative affect as a covariate and used spirituality and racial/ethnic group as moderators. However, the study did not consider third variables to explicate the process occurring between discrimination and mental health outcomes. Studies of discrimination and mental health outcomes have often considered coping style as a moderator (e.g. passive coping and active coping). In a sample of Korean immigrants residing in Toronto, problem-focused coping, rather than emotion-focused coping has been found to more protect against the negative effects of racial discrimination (Noh & Kaspar, 2003). Other studies have considered the role of different types of social support in explaining the discrimination and mental health relationship. While several studies have found that social support, particularly from one’s ethnic community, can buffer the negative effects of discrimination on mental health outcomes (Jasinskaja-Lahti, Liebkind, Jaakkola & Reuter, 2006), some other studies have found that racial discrimination is related with lower perceptions of social support (Prelow, Mosher & Bowman, 2006), such that social support does not buffer the discrimination and mental health relationship. Additional research is

needed in Muslim American young adults to elucidate which moderating and mediating variables may account for the discrimination and mental health findings observed across studies.

4.3.4 Other findings and implications

The findings about racial discrimination predicting depression corroborate findings from a large literature (Benner et al., 2018; Pascoe & Richman, 2009; Schmitt, Branscombe, Postmes & Garcia, 2014). Correlations indicate that racial discrimination was associated with depression and anxiety in this sample, which confirms findings about racial discrimination contributing to internalizing symptoms in individuals of numerous racial and ethnic backgrounds. However, it is important to note that in the presence of religious discrimination, racial discrimination did not predict anxiety.

These results highlight the importance of studying religious and racial discrimination separately and in conjunction. Furthermore, these findings have implications for clinicians working with Muslim Americans and possibly other religious minority groups. Specifically, clinicians should assess for the effects of racial and religious discrimination separately, as each of these experiences may have different meaning for a client and may lead to differential psychological outcomes. In addition, policymakers should be aware that racial discrimination and religious discrimination are in fact two separate, though related, phenomena and that negative policies targeting individuals' multiple social identities may have strong repercussions for the mental health and well-being of these individuals and their communities.

4.4 Implications for Intersectionality Research

The theory of intersectionality argues that multiple social identities intersect at the individual micro-level and elucidate macro-level structural inequalities (e.g. racism, sexism, ableism) (Crenshaw, 1989; Shields, 2008). In other words, this framework argues that

individuals are not the sum of their identities but their identities interact to constitute a meaningful, unique experience. Several methodological approaches may be useful in examining intersectionality, including additive and interactive approaches. The current study primarily utilized the additive approach, as it assessed for independent, additive effects of racial and religious discrimination (Aim 1). However, the interactive approach was also examined using the interaction term between racial and religious discrimination in Aim 1 and the interaction term between race/ethnicity and each type of discrimination (Aim 3).

4.4.1 The Additive Approach.

This study found evidence for the additive model of intersectionality in this sample. Religious discrimination predicted depression and anxiety over and above racial discrimination; this finding points to the importance of considering both constructs when examining discrimination and mental health outcomes in this population. Furthermore, with the addition of more predictors in the model (e.g. negative affect or spirituality), racial discrimination predicted depression while religious discrimination predicted anxiety. This finding is novel in that it helps illuminate unique pathways of each type of discrimination and mental health outcomes.

4.4.2 The Interactive Approach.

The current study found that the combined or interactive effect of racial and religious discrimination (as assessed by using an interaction term multiplying the two types of discrimination) did not predict additional variance beyond each type of discrimination independently. Additionally, this study did not find evidence for the interactive effect of racial or religious discrimination and racial/ethnic group category (McCall, 2005). Contrary to hypotheses, race/ethnic group categories did not moderate the relationship between each type of

discrimination and mental health outcomes, suggesting that the relationships between each type of discrimination and mental health outcomes did not vary based on racial/ethnic group.

While interactive effects were not significant in the current study, the measurement of these effects may have been limited. For instance, the interactive approach was measured by an interaction term between racial discrimination and religious discrimination which may naturally be overlapping constructs. Furthermore, if the current study had been conducted qualitatively, the interactions between varying social identities may have been more prominent because participants could describe their own experiences as a “Middle Eastern Muslim” or “Black Muslim” as they choose to.

4.4.3 Methodological Considerations.

A strength of the current study is that two different methods of intersectionality – the additive and interactive approaches - were employed. Although there was no evidence for the interactive approach, these results do not provide conclusive evidence that these effects do not exist. This study utilized quantitative approaches which may have been limited in assessing for the intersections of social identity. For instance, entering racial and religious discrimination in the model prior to entering in the interaction term between racial discrimination and religious discrimination likely took up significant variance in the model, leaving little explanatory variance for the interaction term. Future studies can build upon this current research, by developing a measure that incorporates the unique and intersectional aspects of racial and religious discrimination in the same scale.

Additionally, qualitative studies may provide a more thorough understanding of the intersections between race/ethnicity and discrimination experiences. Several scholars have argued that qualitative methods are more well-suited to studying intersectionality (Bowleg, 2008;

Cole, 2009; Trahan, 2011), because social identities are not phenomena that can be captured fully with discrete quantitative variables. Bowleg (2008), a leading intersectionality researcher, describes a perplexing phenomenon when it comes to studying intersectionality. She argues that studying intersectionality through the additive method is limited because once a research asks an additive question, they tend to receive an additive answer. However, she also argues that it is nearly impossible to study intersectionality quantitatively without the use of additive methods. The current study provides some valuable initial findings, which can be utilized in developing further studies, related to the intersections between racial discrimination and religious discrimination and their impacts on mental health outcomes for this population. In sum, racial and religious discrimination are important to consider independently due to their possible differential effects; however, experiencing both together is a reality for Muslim Americans and warrants further investigation in research, particularly in qualitative research.

4.5 Spirituality provides a compensatory resilience effect.

The second aim of the study was to identify whether or not spirituality served as a promotive factor for Muslim American young adults in the face of multiple types of discrimination they experience. There is evidence to suggest that spirituality is a culturally-relevant protective factor for this population as well as for individuals as identify as religious (Hodge, Zidan & Husain, 2015; Weber & Pargament, 2014).

Overall, spirituality had a strong, positive main effect as it was predictive of lower depression and anxiety and higher life satisfaction. Spirituality did not buffer the negative effects of racial or religious discrimination. This finding maps onto the compensatory model of resilience (Zimmerman, 2013) and replicates findings from another study of 269 Muslim Americans which found that practice of daily prayer was associated with lower likelihood of

reporting depressive symptoms (Hodge et al., 2015). A study conducted by Abu-Ras and colleagues (2018) found that higher religiosity was related with higher perceived discrimination; participants were asked to self-identify their level of religiosity on a Likert scale. The current study provides evidence that spirituality and religiosity may be different processes for Muslim Americans. Perhaps religiosity, an outward practice of faith, may remind Muslims of societal stereotypes they face, while spirituality may provide internal coping resources which provide calm in the face of Islamophobia.

This is a hopeful finding for Muslim American young adults for whom racial and religious discrimination are realities which they cannot necessarily control in the current sociopolitical climate. Spirituality is a resource that may provide a source of comfort, coping and cognitive reframing of stressful circumstances, which may help them counteract the negative effects of racial and religious discrimination (Pargament, 2007). This study adds to the growing literature on spirituality and mental health in Muslim Americans (Ahmed & Amer, 2012; Hodge et al., 2015; Koenig & Shohaib, 2014; Walpole, McMillan, House, Cottrell & Mir, 2012).

4.6 Intra-Group Differences in Discrimination-Mental Health Outcomes Relationships?

Although based on the theory of multiple minority stress it was hypothesized that there would be racial/ethnic group differences, particularly for Black Muslims who experience discrimination based on both their racial and religious identities, the current study did not find group differences in these processes.

While there is ample evidence to suggest that Black Muslims experience racial discrimination in the larger American landscape as well as intra-group discrimination from other Muslims (Karim, 2006), it is possible that Black Muslims have developed unique coping strategies that were not captured in the current study. Black/African American Muslims are the

oldest Muslim demographic in the country, as approximately 30% of enslaved Africans were Muslim. Further, there was a huge wave of conversion to Islam with influences such as Malcolm X and W.D. Muhammad around 1975 (Karim, 2005). Since that time, Black Muslims have created numerous educational, spiritual/religious, economic and political institutions in the United States. Additionally, Black Muslims whose families have lived in the United States for generations are likely already familiar with the realities of racism and have likely developed coherent discussion points to protect their children from racism, such as racial pride socialization and racial barrier socialization messages (Cooper & Smalls, 2010; Scott, 2004). It is possible that Black Muslims who have a long history of being Muslim *and* American have a longer history of coping with discrimination than Muslims who identify as more recent immigrants (e.g. Arabs, South Asians). It would be noteworthy to investigate whether Black Muslims experience multiple minority resilience as they can bring coping strategies they have used to cope with racial discrimination from their experience as Black Americans to coping with religious discrimination, as well.

However, it should be noted that the current study's approach of using an umbrella racial category of "Black" for convenience of comparison with other racial/ethnic groups missed valuable diversity within groups. For instance, it is likely that African American Muslims and African immigrant Muslims differ in their levels of acculturation, along with other cultural experiences. Previous literature has found that higher levels of acculturation may be protective for Black Muslims. For instance, a study of 135 Somali Muslim adolescent refugees found that higher levels of American acculturation moderated the relationship between discrimination and depression for males but higher levels of Somali acculturation moderated the relationship between discrimination and depression for females (Ellis et al., 2010).

Important directions for future research include investigating the qualitative experiences of coping between racial/ethnic groups and the concept of multiple minority resilience further using qualitative methods.

4.7 Negative affect: a consideration of individual differences.

The current study used negative affect as a covariate in order to consider the role of individual differences in the relationships between racial discrimination and religious discrimination and mental health outcomes. Negative affect (NA) was found to be strongly correlated with both types of discrimination as well as all the mental health outcomes (depression, anxiety and life satisfaction). All models were run with and without negative affect in them. The primary finding relating to negative affect was that negative affect was, as expected, a significant predictor in all models. When controlling for negative affect, most models did not change substantively compared to models which did not include negative affect, although in some cases the strength of association between measures of discrimination and mental health outcomes were somewhat weaker when negative affect was included. As such, results and tables report the models which do not include negative affect.

However, when negative affect was included in the analyses, a few noteworthy findings arose. In the first aim, only racial discrimination, and not religious discrimination, predicted depression. In the second aim, racial discrimination and spirituality, and not religious discrimination, predicted depression. Discrimination did not predict as much variance in mental health outcomes when the overlapping variance (due to a tendency toward negative affect) was accounted for. Only the predictors with the strongest associations were significant in this model, highlighting a more convincing relationship between racial discrimination and depression (which remained significant in both models, with and without negative affect).

Additionally, when negative affect was included in the model with religious discrimination, race/ethnic group categories and depression, the interaction between religious discrimination and South/Southeast Asian vs. Black participants became non-significant. This finding suggests that the interaction is not actually noteworthy. Additionally, religious discrimination did not predict life satisfaction in the presence of negative affect and racial/ethnic group categories.

The most notable finding from using negative affect as a covariate in the study is that even when controlling for negative affect, racial and religious discrimination still significantly predicted negative mental health outcomes. Unique pathways emerged between each type of discrimination, as racial discrimination uniquely predicted depression and religious discrimination uniquely predicted anxiety.

The approach of controlling for negative affect strengthens the findings of the current study because it demonstrates that even when controlling for individual differences relating to personality and individual differences, racial and religious discrimination have independent effects on mental health outcomes. Future studies should continue to incorporate individual difference constructs such as negative affect to strengthen the findings of their studies so that they consider possible explanations for mental health outcomes more comprehensively.

4.8 Depression in Muslim American Young Adults

Approximately half of the study participants reported depressive symptoms scores above the clinical cut-off of 20. This finding is concerning given that participants were comprised of a community sample. A study of 10,962 young adults aged 18-29 in the United States found that approximately 12.7% of the sample reported CES-D scores above the cut-off of 16 (Van Voorhees et al., 2005). However, a study of diverse college students found that 38.5% reported

symptoms above the cut-off of 16 and a mean score of 14.58 (SD : 9.37). While the current study found a higher mean of depressive symptoms ($M = 20.93$, $SD = 12.22$), the higher symptoms of depression may be attributable to higher scores found in young adults.

Compared to both of these mentioned young adult samples, participants from the current study report high depressive symptom scores even when using a more conservative cut-off of 20. It is possible that Muslim young adults experience additional stress which may compound the stress that young adults of their age cohort typically experience. Indeed, a recent study of Arab American adults who are children of immigrants found that 41.2% of participants reported symptoms above the clinical cut-off of 16 while 26.1% had scores above 21. Relatedly, a study of female Arab young adults from the United Arab Emirates recommended a clinical cut-off of 21 for this population, as the cut-off score of 21 best discriminated between clinically depressed and non-clinically depressed participants, when using the SCID (Structured Clinical Interview for DSM-IV) to diagnose clinical depression (Ghubash et al., 2000). A more recent study of Muslim Americans found that 27.9% reported symptoms above the cut-off of 16 (Hodge et al., 2015). Therefore, while the levels of depressive symptoms in the current study are concerning when compared to young adults generally, the findings corroborate the higher levels of depressive symptoms found in several studies with Arab and Muslim samples (Amer, Awad & Hovey, 2012; Ghubash et al., 2000). The levels of depressive symptoms may indicate higher stress experienced by Muslim and Arab young adults and poor levels of coping. While racial discrimination (more primarily), religious discrimination and negative affect were related to depressive symptoms, other possible predictors of depression for this group warrant further investigation.

Muslim young adults between 18 and 30 years of age belong to the “millennial” generation. The majority of them were either children or adolescents when September 11th, 2001 occurred; in other words, the majority of their development has occurred in a context with high levels of societal Islamophobia as a norm. When children and adolescents grow up in contexts of societal discrimination against their group, they are at increased risk of bullying. Such is also the case with Muslim youth. For instance, a recent survey of 1,041 Muslim students in California aged 11-18 found that 53 percent reported that they have experienced bullying in 2016 (CAIR, 2017). It is plausible that for the generation who grew up in the immediate aftermath of September 11th and experienced anti-Muslim backlash, there could be long-lasting consequences of discrimination which contribute to depressive symptoms (e.g. lower self-esteem). There is evidence to suggest that youth who experience bullying at a younger age have an increased risk of depression in later years (Kaltiala-Heino & Fröjd, 2011). This may be a possible explanation for clinically elevated symptoms of depression in this sample.

Another possible explanation of the high rates of depressive symptoms in this sample is the immigration experience. Fifty-two percent of millennial Muslims are immigrants (Pew, 2017). In the current study, ten percent of study participants identified as immigrants and approximately 63 percent identified as children of immigrants. While the immigration experience is unique for every individual, there are many stressors first and second-generation immigrant youth experience. These include and are not limited to acculturative stress, documentation status, disruption in social support and intergenerational conflict (Potochnick & Perreira, 2011; Yazykova & McLeigh, 2015). The current study did not assess these stressors but future studies investigating depression in Muslim young adults should include these variables to gain a more comprehensive understanding about factors which may contribute to depression.

Lastly, Muslim young adults likely face similar challenges to other millennial young adults their age, including financial stress, career stress and relationship stress (Chan, Huang & Lassu, 2017). For instance, an online survey of 1,000 American adults comparing what different generations in the U.S. “lose sleep over” found that American millennials are most likely to be stressed about relationships (Bankrate GfK Custom Research, 2018). This survey also found that older millennials (28-37 years old) were the most stressed out cohort compared to other generational cohorts, with about 3 in 4 losing sleep over something, including finances, relationships or work.

It is highly plausible that for Muslim American young adults, finances, career and relationships are stress-inducing phenomena which are related to depression. However, few studies, including the current study, have empirically investigated the effects of these stressors on Muslim young adults’ mental health outcomes. Future studies should include these variables, along with discrimination, in statistical regression models to assess for the unique contribution of each to mental health outcomes. Exploratory qualitative work on this topic is also recommended in order to gain a preliminary understanding about predictors of depression in Muslim American young adults.

4.8.1 Framing the Results in Existing Models of Depression

The findings of the current study point to high levels of depressive symptoms in this sample. Additionally, racial discrimination was a significant correlate of depression as was negative affect, a covariate used in one set of data analysis. The diathesis-stress model of depression (Colodro-Conde et al., 2018; Robins & Block, 1989) posits that individual-level factors (e.g. genetic risk, personality) interplay with external stressors, contributing to depression. In this study, there was a significant predictive value of both negative affect, an

individual-level personality variable, and racial discrimination, an external stressor. These findings highlight the importance of ongoing research which includes a consideration of individual-level predisposing factors or vulnerabilities as well as stressors which may activate the underlying vulnerabilities. The current study was therefore strengthened by its inclusion of negative affect as a covariate in one set of analyses.

The findings of the current study may also be understood through the Stress Generation Model of Depression (Hammen, 1991). From the perspective of this model, individuals who are depressed report higher rates of stressful events due to the vulnerability processes that underlie their depression, including cognitive errors such as selective attention to cues of discrimination, biased interpretations that actions are discriminatory and social isolation (Beck, 1967). Therefore, this theory argues that depression-prone individuals interact with their environments in such a way that they unknowingly become active agents in the development of stressors in their own life. When applied to the findings of the current study, this theory would argue that individuals who are depressed may perceive more discrimination (e.g. interpersonal persecution or feelings of exclusion from others) which may result in them isolating from others, which further solidifies their negative beliefs about others' harmful intentions towards them. Overall, controlling for negative affect, as the current study did, was a first step in the direction of integrating this model of depression.

4.9 Limitations.

The current study utilized a novel intersectional approach to studying racial and religious discrimination in Muslim American young adults, while considering resilience factors and intra-group diversity. However, there are a few limitations to consider including power and sample diversity.

Firstly, a noteworthy limitation of the current study is that all study measures are based on self-report. Utilizing only self-report as a method may result in common-method variance (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). In other words, because the same individuals reported on their own perceived experiences of discrimination and mental health symptoms, it is possible that these reports are biased in one direction. As a result, instead of capturing the variance due to study constructs, the variance in the current study may be attributable to the tendency of individuals to report their outcomes in a certain manner (e.g. more negatively) or other factors which were not assessed (e.g. filling out questions quickly, fatigue). In order to reduce the likelihood of common-method variance, future studies should strive to use multiple valid methods to measure discrimination and mental health outcomes, such as daily diary studies (Torres & Ong, 2010) and experimental or physiological studies (Harrell, Hall & Taliaferro, 2003). While self-report measures offer valuable information about perceived discrimination, the inclusion of other measures can reduce the likelihood of common-method variance biasing study results.

Second, while the current study had adequate power to conduct regression analyses for the outcome variables of depression and anxiety, it was limited in its power to run regression analyses for life satisfaction. Future studies should try to recruit a high enough sample size to ensure that there is enough power to detect effects for all of the variables of interest.

Third, while the current study provides support for the additive model of intersectionality for the constructs of racial and religious discrimination, these two constructs overlap considerably (as demonstrated by their high correlation). As such, the scales have artificially separated constructs that are naturally more overlapping. In the future, scales which embed intersectionality into the items themselves should be developed and used. An example of such an

item could be “As a Black Muslim, I was treated as inferior in workplace and/or educational settings.”

Fourth, this study has some scale limitations. Overall, the reliability was good for all scales. However, with the inadvertent omission of one item in the racial discrimination scale, one item in the spirituality scale and thirteen items in the religious discrimination subscale, it is possible that the constructs were not adequately measured, despite high reliability. Additionally, the current study utilized the Religious Prejudice and Stigmatization subscale and did not include the other two subscales (“Bicultural Identification and Conflict” and “Exposure to a Religiously Discriminatory Environment”) in the larger Perceived Religious Discrimination Scale (PRDS). Lastly, the current study used the PANAS state version (inquiring about how often participants felt this way over the last week) rather than the PANAS trait version (which inquires about how participants feel generally). The trait version could have more effectively captured general negative affectivity, which is a personality-like tendency to interpret the world in a negative manner, and could have measured diathesis more accurately. Future studies should examine similar research questions using these other subscales, as these subscales may provide valuable information about different domains of religious discrimination.

Fifth, the current study may be limited in its approach to categorizing participants into racial categories. Participants were given the option to self-identify with an expansive list of ethnicities or add an option of “other” and write in their ethnicity. For ease of group comparison and to create dummy codes, participants were classified into corresponding racial groups. An obvious limitation of this approach is that the participants may not self-identify with that racial category. The measurement and classification of race and ethnicity is complex and a topic of great critique, as the definitions of each of these constructs has shifted over time; further, many

scholars argue that race is a social construct and not meaningful (AAA, 1997; Helms, Jernigan & Mascher, 2005). While racial/ethnic group categories were created for these participants for use in this quantitative study, it is highly recommended that future studies on this topic employ qualitative methods in order to allow participants greater freedom for self-definition and explanation of nuance related to their social identities.

Sixth, the current study had an overrepresentation of South Asian Muslims compared to Muslim Americans of other racial/ethnic subgroups. Future studies should make an effort to recruit larger samples of Black Muslims and other subgroups within the Muslim American community.

Lastly, the current study is limited in that causation cannot be inferred based on the study design. Because the study is cross-sectional and not longitudinal, the temporal order of the variables of interest is unclear. For instance, depressive symptoms could also predict perceived racial discrimination, but this relationship was not tested. Therefore, all the assertions and analyses of the current study should be interpreted with caution when considering the topic of causation.

4.10 Future Directions.

Future research should move towards the direction of scale development that would incorporate multiple types of discrimination. For instance, a scale that incorporates racial discrimination, religious discrimination and gender-based discrimination may more effectively capture the intersectional experiences of discrimination faced by Muslim American young adults. These scales should also take into consideration intra-group discrimination (e.g. discrimination experienced by Black Muslims or White Muslims in immigrant-majority Muslim spaces).

While the current study used an approach of intersectionality to study what multiple minority *stress* would look like for Muslim American young adults, future studies should also investigate whether there is evidence for multiple minority *resilience*. As mentioned, a surprising finding in the current study was that Black Muslims did not differ in their experiences of discrimination and mental health outcomes, despite evidence in the extant literature that they may experience higher multiple minority stress. It is possible that resources Black Muslims have acquired through their experience in one social group may translate into acquisition of resources (e.g. knowledge, cognitive reframing techniques) to cope with the adversity of belonging to another group, concurrently.

Qualitative research in this area is fundamental and should be conducted to expound upon the current research question as well as to explore protective factors which were not considered in the current study. Another benefit of qualitative research is its ability to explore intra-group experiences and protective factors, which a researcher may not have included a-priori in quantitative research.

An additional area worthy of future investigation is the role and impact of migration on Muslim young adults' mental health. A sizeable proportion (approximately 75 percent) of Muslim American young adults belong to immigrant backgrounds or are children of immigrants (Diamant, 2017). A similar demographic pattern was also observed in the participants of the current study, with about 73% of participants identifying as immigrants or children of immigrants and 2% of participants having lived in a refugee camp. Understanding Muslim families' pre- and post-migration stressors and coping resources may provide another lens to understand why certain individuals may be more attuned to perceived racial and/or religious discrimination. Individuals who experienced higher levels of pre-migration stress may be at

higher risk for depression and anxiety, contributing to different relationships in discrimination and mental health relationships (Kirmayer et al., 2011). For example, Muslim immigrants who were exposed to only racial/ethnic discrimination or only religious discrimination pre-migration may be more familiar with these types of discrimination post-migration. Rohingya Muslim refugees from Burma who were persecuted on account of their race/ethnicity and religion, for instance, may already have a language for and understanding of both racial and religious discrimination, on account of either experiencing both types of discrimination (Milton et al., 2017). On the other hand, immigrants or refugees who migrate from countries where race/ethnicity is not salient but religious discrimination is high may be more attuned to experiences of religious discrimination after moving to the United States. The phenomenon of immigration history impacting perceptions of discrimination also applies to Black Muslims. Black immigrants to the U.S. may be surprised by the treatment of African Americans in the U.S. if race was not salient identity for them in their home country. Some research suggests that African immigrants respond to this racial discrimination by distancing themselves from identifying as African American and identifying with their ethnic in-group (Foner, 2016). According to Pew Research (2017), 91% of U.S. born Muslims agree with the statement that “there is a lot of discrimination against Muslims” compared to 65% of immigrant Muslims. Further, 61% of U.S. born Muslims reported experiencing at least one incident of anti-Muslim discrimination compared to 39% of immigrant Muslims. Given that there are different rates of perceived discrimination based on immigrant background, future studies should continue to investigate the role of immigration on the relationships between discrimination and mental health. Acculturative stress and ethnic identity are constructs which may assist future researchers

in understanding how specifically the immigration process influences the discrimination and mental health relationship.

To extend findings about depression and anxiety from the current study using a diathesis-stress approach, several future directions are recommended. This study was limited in that it did not consider other individual-level diathesis variables besides negative affect. Future studies should utilize measures of both individual-level vulnerabilities (e.g. polygenic risk scores – PRS) and discrimination, so to provide empirical clarification regarding the gene-discriminatory environment interaction and its role in the development of depression. In terms of statistical analysis, testing for interactions between diathesis and stress variables would provide empirical support for the diathesis-stress model in this research area. Furthermore, it is recommended that future studies conduct longitudinal analyses while controlling for depression at earlier time points when examining the stress-depression relationship. To assess the transactional nature between stress and depression as explained by this theory of depression, future studies should also consider depression as an independent variable, not just as the dependent variable of interest.

4.11 Implications.

Despite some limitations, the current study adds to the literature about Islamophobia, mental health and resilience by using an intersectional approach to understanding the complex phenomenon of discrimination (Samari et al., 2018). Results supported hypotheses that both types of discrimination – racial and religious discrimination – would have independent effects on mental health outcomes.

4.11.1 Clinical Implications.

When concurrently measured, religious discrimination uniquely predicted anxiety, which has implications for clinical work. When negative affect was included as a covariate, only racial depression uniquely predicted depression. Thus, for clinicians working with Muslim Americans, it would be valuable to initially become familiar with clients' social identities and their potential role in clients' mental health, using the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5) Cultural Formulation Interview as a guide (American Psychiatric Association, 2013). For instance, the DSM-5 Cultural Formulation Interview includes the following question about social identity: "For you, what are the most important aspects of your background or identity?" and instructs practitioners to follow up about which elements of that identity make the problem (e.g. depression) worse (APA, 2013, p. 842). The guide further encourages practitioners to probe for factors that could worsen the problem and includes references to discrimination, migration, race/ethnicity and sexual orientation. Using findings from the current study, it is recommended that clinicians ask of clients their experiences related to racial and religious discrimination separately as well as in conjunction, keeping in mind that each type of discrimination and/or their intersection may or may not be salient for a given client. This clinical consideration may assist Muslim clients and their clinicians in identifying potential sources of distress as well as mental health outcomes to target in treatment. Additionally, given that spirituality emerged as a compensatory resilience factor in counteracting the effect of each type of discrimination, clinicians should encourage practicing Muslim clients to utilize this resource to cope with the stress of discrimination. Finally, numerous other predictors of negative mental health and resilience may exist for this population and likely vary by Muslim young adults' social identities. A preliminary discussion of salient social identities during the initial

sessions of therapy may contribute to honest and collaborative therapeutic work, incorporating clients' own hypotheses about their stress and resilience factors.

4.11.2 Policy Implications.

Findings from the current study point to the multi-faceted risks of Islamophobia. For policymakers who deny the existence of this phenomenon (religious discrimination) or the negative effects of religion-based discrimination on Muslim Americans, this study adds to the growing literature about the significant repercussions of religious discrimination, along with racial discrimination, on the mental health and well-being on Muslim young adults, the largest age demographic of Muslim Americans. In order to support Muslim Americans young adults' healthy outcomes and, as a result, healthy engagement with American society, every effort should be made to remove discriminatory policies, such as the Muslim ban, which result in isolation and fear. Policies prosecuting race and religion-based hate crimes should be strengthened while policies unfairly targeting racial and religious minority communities, including Muslim Americans, should be eliminated.

4.12 Conclusion.

Poet and author Audre Lorde (1984) described the challenge of self-definition with multiple social identities as “constantly being encouraged to pluck out some aspect of myself and present this as the meaningful whole, eclipsing and denying the other parts of the self” (p. 120). It is hoped that the current study sheds light on the importance of affirming the experiences associated with Muslim young adults' multiple social identities (i.e. several types of discrimination, cultural sources of resilience such as spirituality). Through understanding these complex and intersectional identities – and oppressions enacted upon these identities –

researchers, practitioners and policymakers alike will be one step closer to promoting psychological well-being and social justice for this population.

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APPENDICES

Appendix A Online Survey

Appendix A.1 Study Consent Form

Georgia State University

Department of Psychology

Informed Consent

Title: Positive Youth Development of Muslim American Young Adults

Principal Investigator: Gabriel Kuperminc, Ph.D.

I. Purpose:

You are invited to participate in a research study. The goal is to learn what it is like to grow up in the U.S. as a young Muslim American. We would like to learn more about the lives of Muslim American young adults. You are invited to join because you are Muslim, live in the U.S. and are at least 18 years old. About 500 people will take part in the study.

II. Procedures:

If you decide to participate, we will ask you to fill out a confidential online survey. The survey will ask you about different topics, including questions about your religious beliefs and mental health. The survey will take about 20 to 30 minutes.

III. Risks:

In this study, you will not face any more risks than you would in a normal day. Some of the questions in the survey ask about sensitive topics such as discrimination. You may skip any questions you do not want to answer. You may leave the study at any time.

IV. Benefits:

Taking part in this study will help researchers learn more about the experiences of Muslim American young adults.

V. Compensation:

Participants can choose to enter a raffle for a \$5 Amazon gift card. Only 75 participants will be able to receive this gift card. This raffle is open to the public. Participants do not have to complete the study to be included in the raffle.

VI. Voluntary Participation and Withdrawal:

Participation in research is optional. You do not have to be in this study. If you join and change your mind later, you can leave at any time. You may also skip questions.

VII. Confidentiality:

We will keep your records as private as the law can allow. Only the principal investigator can access your information. Your information may also be shared with people who make sure the study is done correctly (GSU Institutional Review Board and the Office for Human Research Protection). We will use a random user ID instead of your name on the survey. Data sent over the Internet might not be safe. However, the computer program used to collect data offers Transport Layer Security (TLS) encryption (HTTPS). Data will be stored on a password- and firewall-protected computer. We will not share your name or other facts that might point you out when we present or publish the data. We will discuss the results in group form.

VIII. Contact Persons:

If you have any questions or concerns about this study please contact Dr. Gabriel Kuperminc at 404-413-6281 or email gkuperminc@gsu.edu. You can also call if you think you have been harmed by the study. To talk to someone who is not part of the study team please call Susan Vogtner

in the Georgia State University Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu.

You can speak with Susan about questions, concerns, or about your rights in this study.

IX. Copy of Consent Form to Subject:

If you agree to join this study, please click the continue button.

You can also print a copy of this form for your records.

Appendix A.2 Measures for Dissertation Study

A. Demographics

What day of the week is the Muslim holy day? (Test question)

Are you: Male _____ Female _____

How old are you? _____ Date of Birth: _____

Were you born in the U.S.? Yes _____ No _____; where were you born?

Have you lived in a refugee camp prior moving to the US? Yes: _____ No: _____

Are you a citizen of the United States?

Yes _____ No _____

If you are a citizen of the United States, are you registered to vote? Yes _____ No _____

Did at least one of your parents attend and finish college? Yes _____ No _____

Check which generation in your family were the first ones to come to the United

States:

_____ I was born outside the United States.

_____ One or both of my parents moved to the United States.

_____ One or more of my grandparents moved to the United States.

_____ My family has lived in the United States for many generations.

_____ I don't know.

Which religion do you identify with?

- a. Muslim
- b. Jewish
- c. Christian – Catholic
- d. Christian – Protestant
- e. Christian – Other
- f. Hindu
- g. Buddhist
- h. Sikh
- i. Agnostic
- j. Atheist
- k. Other

There are various ways people choose to practice Islam. Which of the following do you identify with?

Sunni

Shia

Non-denominational

Other _____

What is your racial/ethnic background?

- a. African
- b. African-American
- c. Arab/Middle Eastern
- d. Latino
- e. Native American
- f. South Asian (Indian, Pakistani, Bangladeshi, etc.)

g. Southeast Asian (Indonesian, Malaysian, etc.)

h. East Asian (Chinese, Japanese, etc.)

i. Central Asian

j. White

k. Other _____

What is your current relationship status:

- a. Married
- b. Living with partner
- c. Close boyfriend or girlfriend
- d. Casual relationship
- e. Occasional dating
- f. Courting (getting to know someone for the purpose of marriage)
- g. Divorced
- h. Widowed
- i. No current relationship

Do you have any children?

- a. Yes
- b. No

If yes, number of children?

- a. 1
- b. 2
- c. 3
- d. 4 or more

Employment Status: Are you currently...?

- a. Employed for wages
- b. Self-employed
- c. Out of work and looking for work
- d. Out of work but not currently looking for work
- e. A homemaker

- f. A student
- g. Military
- h. Retired
- i. Unable to work

Which of these categories best describes your total household income for the past 12 months?

- _____ Less than \$5,000
- _____ \$5,000 through \$11,999
- _____ \$12,000 through \$15,999
- _____ \$16,000 through \$24,999
- _____ \$25,000 through \$34,999
- _____ \$35,000 through \$49,999
- _____ \$50,000 through \$74,999
- _____ \$75,000 through \$99,999
- _____ \$100,000 and greater
- _____ Don't know
- _____ No response

What is the highest degree you earned or are currently completing?

- _____ High school diploma or equivalency (GED)
- _____ Associate degree (junior college)
- _____ Bachelor's degree
- _____ Master's degree

_____ Doctorate

_____ Professional (MD, JD, DDS, etc.)

_____ Other specify

_____ None of the above (less than high school)

Current educational status

a. In school full-time

b. In school part-time

c. Not in school

Hours employed per week

a. None

b. 1-10

c. 11-20

d. 21-39

e. 40+

What is the highest level of education completed by parents?

a. High school diploma or less

b. Some college or vocational school

c. 4-year college degree or more

What is your current living arrangement?

a. Live with parents

b. Live with friends or roommates

c. Live with husband or wife

d. Live with boyfriend or girlfriend

e. Live alone

f. Other

B. Scales

Everyday Discrimination Scale (Williams et al., 1997)

How often do you experience the following scenarios because of your **race** in the past year?

0 - Never	1 - Less than once a year	2 - A few times a year	3 - A few times a month	4 - At least once a week	5 - Almost every day
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1. You are treated with less courtesy than other people.
2. You are treated with less respect than other people.
3. You receive poorer service than other people at restaurants or stores.
4. People act as if they think you are not smart.
5. People act as if they are afraid of you.
6. People act as if they think you are dishonest.
7. People act as if you are not as good as they are.
8. You are called names or insulted.
9. You are threatened or harassed.
10. You are followed in stores.

The Perceived Religious Discrimination Scale (Rippy and Newman, 2008)

Religious Prejudice and Stigmatization Subscale

(In the original scale, the below items appear as items 1, 4, 6, 7, 8, 10, 11, 12, 13)

Never = 0 Rarely = 1 Sometimes = 2 Frequently = 3 Very frequently
= 4

1. Have fellow Americans ever kept their physical distance from you because of the fact you were Muslim?

2. Have you ever observed Muslim people being stared at in a hostile or threatening manner?

3. Did you ever feel like you had to express anti-Arab or Muslim sentiment in front of others, even

if you did not feel that way?

4. Were you ever in a situation where you felt isolated because you were the only, or one of the few,

Muslims in a group of non-Muslims?

5. Have others ever treated you like you are an outsider or foreigner?

6. Have you ever been singled out by airport personnel, bank tellers, security, or others based on

your name or Islamic attire?

7. Have others ever said to you that you resembled a terrorist?

8. Were you ever concerned that someone might question your loyalty to the U.S. if they observed

you interacting with other Muslims?

9. Do you ever fear being out in public alone while dressed in Islamic dress (hijab/niqab, jilbab,

full beard, Islamic clothing)?

Daily Spiritual Experience Scale (DSES; Underwood, 2011)

The list that follows includes items you may or may not experience. Please consider how often you directly have this experience, and try to disregard whether you feel you should or should not have these experiences.

	Many times aday	Every day	Most days	Some days	Once in a while	Never
I feel Allah's presence.						
I experience a connection to all of life.						
During worship, or at other times when connecting with Allah, I feel joy which lifts me out of my daily concerns.						
I find strength in my religion or spirituality.						
I find comfort in my religion or spirituality.						
I feel deep inner peace or harmony.						
I ask for Allah's help in the midst of daily activities.						
I feel guided by Allah in the midst of daily activities.						
I feel Allah's love for me, directly.						
I feel Allah's love for me, through others.						
I am spiritually touched by the beauty of creation.						
I feel thankful for my blessings.						
I feel a selfless caring for others.						
I accept others even when they do things I think are wrong.						
I desire to be closer to Allah or in union with the divine.						

	Not at all	Somewhat close	Very close	As close as possible
In general, how close do you feel to Allah?				

Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977)

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt

this way during the past week.

0 - Rarely or none of the time (less than 1 day)

1- Some or a little of the time (1-2 days)

2- Occasionally or a moderate amount of time (3-4 days)

3 - Most or all of the time (5-7days)

1. I was bothered by things that usually don't bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people dislike me.
20. I could not get "going".

Satisfaction with Life Scale (Diener et al., 1985)

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

The Positive and Negative Affect Schedule (PANAS; Watson et al., 1988)

This scale consists of a number of words that describe different feelings and emotions.

Read each item and then list the number from the scale below next to each word. **Indicate to what extent you feel this way right now, that is, at the present moment *OR* indicate the extent you have felt this way over the past week (circle the instructions you followed when taking this measure)**

1: Very Slightly or Not at All

2: A Little

3: Moderately

4: Quite a Bit

5: Extremely

1. Interested
2. Distressed
3. Excited
4. Upset
5. Strong
6. Guilty
7. Scared
8. Hostile
9. Enthusiastic
10. Proud

11. Irritable
12. Alert
13. Ashamed
14. Inspired
15. Nervous
16. Determined
17. Attentive
18. Jittery
19. Active
20. Afraid

GAD-7 (Spitzer, Kroenke, Williams & Löwe, 2006)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
1 Feeling nervous, anxious or on edge	0	1	2	3
2 Not being able to stop or control worrying	0	1	2	3
3 Worrying too much about different things	0	1	2	3
4 Trouble relaxing	0	1	2	3
5 Being so restless that it is hard to sit still	0	1	2	3
6 Becoming easily annoyed or irritable	0	1	2	3
7 Feeling afraid as if something awful might happen	0	1	2	3

Appendix B Recruitment Materials

Appendix B.1 Sample Email Invitation to Organizations

Date

Dear (organization),

I hope this reaches you well. My name is Zahra Murtaza and I am a student researcher and PhD Candidate studying Psychology at Georgia State University. I am reaching out in order to invite members of your organization who are Muslim young adults ages 18 and above to participate in an important research study. The topic focuses on the well-being and mental health of Muslim young adults living in the United States. This study consists of a confidential, online survey which will take about 20-30 minutes to complete. Furthermore, participants will have the opportunity to win 1 of 75 \$5 Amazon gift cards.

Our team hopes that this research contributes to greater knowledge about how to promote positive well-being and mental health amongst Muslim Americans. We would greatly appreciate if you could forward this invitation to your organization's mailing list and if you could share the below link and attached flyer on your social media pages:

<https://tinyurl.com/MuslimYoungAdultStudy>

Please let me know if you have any questions. You may also contact the Principal Investigator of this study, Dr. Gabriel Kuperminc (Chair of Community Psychology at Georgia State University) at gkuperminc@gsu.edu with questions or concerns.

Sincerely,

Zahra Murtaza, MA

PhD Candidate in Clinical and Community Psychology

Georgia State University, Atlanta, GA

zmurtaza1@student.gsu.edu

Appendix B.2 Study Flier

Muslim Young Adults Study



**In these challenging sociopolitical times, many ask:
"Where are the voices of Muslim young adults?"**

If you are a Muslim 18-30 years old & live in the U.S.,
here is a meaningful opportunity to share your voice.

You are invited to participate in an online survey about
your life experiences and well-being. You can also enter
a raffle to win one of 75 \$5 Amazon gift cards. You do
not have to take the survey to be in the raffle, as the raffle
is open to the public. **Below is the link to take the
survey:**

Link: <https://tinyurl.com/MuslimYoungAdultsStudy>

For more info, please contact Zahra Murtaza, M.A. (PhD
Candidate at GSU Department of Psychology) at
zmurtaza1@student.gsu.edu

Appendix C Study Tables with the Inclusion of Negative Affect as a Covariate.

Table 10 Aim 1 Hierarchical Regression Results Investigating Concurrent Racial and Religious Discrimination (With Inclusion of Negative Affect).

Predictors	DV: Depression					DV: Anxiety					DV: Life Satisfaction				
	B	SE B	β	ΔR^2	F Change	B	SE B	β	ΔR^2	F Change	B	SE B	β	ΔR^2	F Change
Step 1				.54	107.63**				.48	84.25**				.20	22.93*
Gender	-.90	1.06	-.04			1.43	.51	.12**			-.75	.75	-.06		
Dataset Number	-4.06	1.51	-.11**			-.27	.73	-.02			1.54	1.07	.08		
Negative Affect	1.12	.06	.73**			.48	.03	.69**			-.37	.05	-.45**		
Step 2				.06	41.19**				.02	10.97**				.01	3.94*
Gender	-1.00	.99	-.04			1.41	.51	.12**			-.73	.75	-.05		
Dataset Number	-4.04	1.41	-.11**			-.26	.72	-.02			1.53	1.06	.08		
Negative Affect	1.03	.06	.67**			.46	.03	.65**			-.35	.05	-.42**		
Racial discrimination	.24	.04	.25**			.06	.02	.15**			-.06	.03	-.11*		
Step 3				.002	1.22**				.01	4.19*				.00	.06
Gender	-1.05	.99	-.04			1.36	.50	.12**			-.74	.75	-.05		
Dataset Number	-3.97	1.41	-.11**			-.19	.72	-.01			1.54	1.07	.08		
Negative Affect	1.02	.06	.67**			.45	.03	.64**			-.35	.05	-.42**		
Racial discrimination	.21	.05	.22**			.03	.03	.07			-.06	.04	-.12		
Religious discrimination	.11	.10	.06			.10	.05	.12*			.02	.07	.02		
Step 4				.002	1.30**				.003	1.41				.00	.17
Gender	-1.10	.99	-.04			1.33	.50	.12**			-.72	.75	-.05		
Dataset Number	-3.84	1.41	-.11**			-.12	.72	-.01			1.51	1.07	.08		
Negative Affect	1.02	.06	.67**			.45	.03	.64**			-.35	.05	-.43**		
Racial discrimination	.20	.05	.21**			.03	.03	.06			-.06	.04	-.12		
Religious discrimination	.12	.10	.07			.11	.05	.13*			.01	.08	.01		
Interaction: Racial disc. x religious disc.	.01	.01	.04			.003	.003	.05			-.002	.004	-.02		
F Total					68.99**					46.98**					12.20**

Note: Racial discrimination, religious discrimination and negative affect were centered at their means.

* $p < .05$. ** $p < .01$.

Table 11

Aim 2 Hierarchical Regression Results Investigating Racial Discrimination, Religious Discrimination and Spirituality (With Inclusion of Negative Affect).

Predictors	<i>B</i>	<i>SE</i> <i>B</i>	β	ΔR^2	<i>F</i> Change	<i>B</i>	<i>SE</i> <i>B</i>	β	ΔR^2	<i>F</i>	<i>B</i>	<i>SE</i> <i>B</i>	β	ΔR^2	<i>F</i>
				.54	107.63**				.48	84.25*				.20	22.93*
Step 1										*					*
Gender	-.90	1.06	-.04			1.43	.51	.12**			-.75	.75	-.06		
Dataset Number	-4.06	1.51	-.11**			-.27	.73	-.02			1.54	1.07	.08		
Negative Affect	1.12	.06	.73**			.48	.03	.69**			-.37	.05	-.45**		
Step 2				.08	20.43**				.04	7.54**				.02	2.86*
Gender	-.57	.97	-.02			1.52	.50	.13**			-.93	.75	-.07		
Dataset Number	-1.91	1.46	-.05			.50	.76	.03			.71	1.13	.04		
Negative Affect	.99	.06	.65**			.44	.03	.62**			-.34	.05	-.41**		
Racial discrimination	.18	.05	.19**			.02	.03	.05			-.05	.04	-.10		
Religious discrimination	.11	.10	.06			.10	.05	.12*			.02	.07	.02		
Spirituality	-.14	.03	-.17**			-.05	.02	-.12**			.06	.03	.13*		
Step 3				.00	.08				.001	.29				.001	.21
Gender	-.54	.98	-.02			1.57	.51	.14**			-.87	.76	-.06		
Dataset Number	-1.87	1.48	-.05			.50	.76	.03			.69	1.14	.04		
Negative Affect	.99	.06	.65**			.44	.03	.62**			-.34	.05	-.41**		
Racial discrimination	.18	.05	.19**			.02	.03	.05			-.05	.04	-.10		
Religious discrimination	.12	.10	.06			.10	.05	.12*			.01	.08	.01		
Spirituality	-.14	.03	-.17**			-.05	.02	-.13**			.05	.03	.12*		
Interaction: Racial disc. x spirituality	-.001	.003	-.01			-.001	.002	-.04			-.001	.003	-.04		
Interaction: Religious disc. x spirituality	-.001	.01	-.01			.00	.00	.01			.001	.01	.01		
<i>F</i> Total					56.10**					36.53*					9.84**

Note: Racial discrimination, religious discrimination, spirituality and negative affect were centered at their means.

* $p < .05$. ** $p < .01$.

Table 13 Aim 3.2 Hierarchical Regression Results with Religious Discrimination and Racial/Ethnic Group as a Moderator (With Inclusion of Negative Affect).

Predictors	DV: Depression					DV: Anxiety					DV: Life Satisfaction				
	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F	B	SE B	β	ΔR^2	F
				.54	107.63**				.48	84.25**				.20	22.93**
Step 1															
Gender	-.90	1.06	-.04			1.43	.51	.12**			-.75	.75	-.06		
Dataset Number	-4.06	1.51	-.11**			-.27	.73	-.02			1.54	1.07	.08		
Negative Affect	1.12	.06	.73**			.48	.03	.69**			-.37	.05	-.45**		
Step 2				.05	5.98**				.03	3.32**				.01	.35
Gender	-.11	1.10	-.004			1.48	.55	.13**			-.68	.82	-.05		
Dataset Number	-4.47	1.52	-.13**			-.09	.76	-.01			1.32	1.13	.07		
Negative Affect	1.02	.06	.66**			.44	.03	.63**			-.36	.05	-.43**		
Religious discrimination	.35	.08	.19**			.14	.04	.16**			-.06	.06	-.06		
Arab/Middle Eastern (ME) vs. Black	-.85	1.90	-.03			-.02	.95	-.001			-.18	1.42	-.01		
White vs. Black	2.44	2.02	.07			.22	1.01	.01			.17	1.51	.01		
South/Southeast Asian vs. Black	-1.29	1.72	-.05			-.41	.86	-.04			.16	1.28	.01		
Other Racial Group vs. Black	-1.09	2.20	-.03			.95	1.10	.05			-.74	1.64	-.03		
Step 3				.01	1.28				.003	.42				.01	.68
Gender	.09	1.10	.004			1.53	.55	.13**			-.70	.82	-.05		
Dataset Number	-4.46	1.52	-.13**			-.07	.76	-.004			1.30	1.14	.07		
Negative Affect	1.01	.06	.66**			.44	.03	.63**			-.36	.05	-.44**		
Religious discrimination	.40	.25	.22			.16	.12	.19			-.12	.18	-.11		
Arab/ME vs. Black	-.53	1.91	-.02			.03	.96	.002			-.40	1.43	-.03		
White vs. Black	2.60	2.08	.08			.35	1.04	.02			.09	1.56	.01		
South/Southeast (SE) Asian vs. Black	-1.34	1.72	-.06			-.42	.86	-.04			.13	1.29	.01		
Other Racial Group vs. Black	-1.16	2.20	-.03		.92	1.10	.05				-.83	1.65	-.04		
Interaction: Religious disc. x Arab/ME	.17	.29	.05		.01	.14	.01				-.07	.21	-.03		
Interaction: Religious disc. x White	-.08	.34	-.01		-.07	.17	-.02				.09	.26	.03		
Interaction: Religious disc. x South/SE Asian	-.20	.27	-.07		-.05	.13	-.04				.08	.20	.06		
Interaction: Religious disc. x Other Racial Group	.22	.36	.03		.12	.18	.04				.28	.27	.08		
F Total					32.36**					23.26**					6.01*

Note: Religious discrimination and negative affect were centered at their means.

* $p < .05$. ** $p < .01$.