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Determinants of Mental Health in the Context of Multiple Minority Status: An Examination of Muslim American Young Adults

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Psychology

by

Dana Saifan

2022

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ABSTRACT OF THE DISSERTATION

Determinants of Mental Health in the Context of Multiple Minority Status:

An Examination of Muslim American Young Adults

by

Dana Saifan

Doctor of Philosophy in Psychology

University of California, Los Angeles, 2022

Professor Anna Shan-Lai Chung, Chair

Mental health research among individuals belonging to minority groups has become increasingly common, as it is recognized that such individuals face heightened vulnerability for the development of mental health problems and barriers to accessing mental health services given their minority status (Meyer, 2003; Williams & Chapman, 2011). However, the extant literature has primarily focused on individuals holding single minority status (i.e., belonging to one minority group), namely based on a minority ethnic identity or minority sexual identity. Limited research has begun to examine mental health among individuals with dual minority status (i.e., belonging to two minority groups), despite the fact that individuals with multiple marginalized identities are likely at even greater risk for psychopathology and barriers to help-seeking, given the increased experiences of minority stress they may experience. Thus, greater research is needed to better understand mental health needs and factors that influence mental health for individuals with multiple minority status.

The goal of this dissertation is to investigate mental health needs, determinants of mental health (i.e., perceived discrimination, religious and ethnic group identification, and sense of belonging), and perceived barriers to service-seeking for young adults, in the context of individuals who hold multiple minority identities. To achieve this goal, this dissertation examined Muslim American young adults (ages 18 to 25), who belong to both minority ethnic and minority religious groups. The first study employed a qualitative research design, using focus group methodology, to understand how various community stakeholders (i.e., Muslim mental health professionals, community leaders, and young adults) perceive determinants of mental health, specific mental health needs, and barriers to service-seeking, for Muslim American young adults. The second study utilized a cross-sectional survey of 277 participants across the United States to examine perceived discrimination as a predictor of mental health status among Arab and South Asian Muslim American young adults, with investigation of religious and ethnic identification patterns as a moderator of the discrimination—mental health pathway. Lastly, the third study employed the same cross-sectional survey design as Study 2, to investigate familial, communal, and societal sense of belonging as predictors of Arab and South Asian Muslim American young adults' mental health status. Through better understanding of the mental health needs and barriers to care for this population, we can identify specific targets to further study in order to improve mental health service delivery and prevention efforts for Muslim American young adults.

The dissertation of Dana Saifan is approved.

Bruce Frederick Chorpita

Yuen J. Huo

Jaana Helena Juvonen

Sawssan Ahmed

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University of California, Los Angeles

2022

DEDICATION

To all my sisters and brothers who are straddling the complex borders of multiple identities, in the Muslim American community and in immigrant communities more broadly. Navigating divergent realities while trying to find acceptance and maintain authenticity is a challenging task that needs to be talked about more.

To those of you who have faced backlash and threats as you've strived to live authentically, especially those who carry the weight of family and community on your shoulders – you deserve to live freely and to be loved unconditionally.

Finally, to those who seek consciousness and who try to make this world a more just and loving place. Your commitment to the truth, to the dismantling of oppressive systems, and to the liberation of all peoples, is what gives me hope each day.

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ACKNOWLEDGMENTS

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I am grateful to the participants of these studies, who gave of their time, energy, and vulnerability to benefit our community. Your voice is imperative, and I am committed to sharing it in order to break longstanding taboos and begin collective healing. Your openness and honesty have helped me to personally find community, connection, and validation, and for that, I am forever grateful.

To my Woman While Muslim community, who cheered me on throughout this process, encouraged people to participate in the research, and provided me a space to reflect, grow, and heal, I am indebted to you. Hearing your stories and building sisterhood has been transformative, and it has directly helped guide the work I have chosen to do.

I thank Dr. Anna Lau, my Committee Chair, for her selfless mentorship, for creating space for me to pursue my passions, and for fearlessly supporting me to live in line with my values. You have championed my efforts with so much integrity and care, and you made sure I never felt alone or unsupported throughout this process. You have embodied values-driven mentorship since I was a research coordinator in your lab, and I am grateful for having grown under your wing over the last 8 years.

I also thank Dr. Bruce Chorpita for his endless support and trust in my ability to create new projects that integrate my passions. Your vision and encouragement to think big and outside the box in order to address problems that we care about has been integral throughout my

graduate career. To the other members of my dissertation committee, including Yuen Huo, Jaana Juvonen, and Sawssan Ahmed, I am grateful for your feedback, consultation, honesty, and encouragement throughout this dissertation process. Your support and feedback from my initial brainstorming through the final defense has allowed me to craft a strong project that I can truly say I am proud of.

This dissertation, and all of graduate school, would not have been possible without the endless love and support of my partner and husband, Sergio. You are the most committed, loving, reflective, and intentional person I know, and as some would so aptly say, "the most human human." From graduate school applications and GRE studying, to the completion of my dissertation and internship, you have been my rock throughout this process. You have been patient through long days, weeks, and years that have taken a significant toll and required me to sacrifice time, energy, and at many points, myself. Thank you for pushing me to center myself and my life experiences, to bring myself into my work, and to find meaning and purpose in all that I do. Our late night walks and conversations, your challenging questions, and your willingness to walk alongside me as I figured it all out allowed me to leave graduate school having done work that I am proud of and that is so personally meaningful. Without you, I would never have traveled to Palestine to initially try to complete my dissertation, and I wouldn't have ultimately grounded my work in the Muslim American community. I also would not have completed a clinical internship which has transformed my life in the best way possible. Thank you for giving me the courage the take the road less traveled, to step outside my comfort zone, to push boundaries, and to engage in praxis. You have helped me to better know myself and have been committed to my growth and well-being every single day. I could not have asked for a more precious gift or a more loving partner - I love you. Thank you.

I am grateful to my friends, cohort-mates, and brothers who have been with me through this journey, who listened to me vent, shared meals and lots of coffee, and sent me love and encouragement from near and far. Community is my lifeblood, and you helped take the edge off an incredibly stressful process.

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Lastly, this dissertation was made possible by the generous funding I received through the UCLA Institute of American Cultures Research Grant, as well as the Center for Arab American Philanthropy's Dr. Philip M. Kayal Fund for Arab American Research and Dr. Adawia Alousi STEM Scholarship Fund for Muslim Women.

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GENERAL INTRODUCTION OF THE DISSERTATION

The Context of Muslims in America

Demographic Overview

Muslim Americans constitute a diverse and growing population within the United States (U.S.), with an estimated 3.45 million Muslims in the U.S., making up 1.1% of the U.S. population (Pew Research Center, 2017). Although most Muslim Americans hold at least two minority identities, including a uniquely stigmatized religious identity and racial/ethnic minority status, many also hold additional minority statuses (e.g., based on nationality), which may collectively be associated with increased vulnerability to mental health problems. The Muslim American community is racially/ethnically diverse, with Muslim Americans being approximately 25% Black, 24% White, 18% Asian (including South Asian), 18% Arab, 7% Mixed Race, and 5% Latinx (Institute for Social Policy and Understanding [ISPU], 2017). A large portion of Muslim Americans are foreign-born, with approximately 58% of adults born in another country and 18% being second-generation Americans (i.e., born in the U.S., with at least one immigrant parent). The greatest proportion of Muslim immigrants to the U.S. immigrate from South Asia (35%), whereas 25% immigrate from the Middle East / North Africa (Pew Research Center, 2017). Furthermore, Muslim Americans are younger than the overall U.S. population, with approximately 39% of being children and 22% being between 18 and 29 years old (Pew Research Center, 2017).

The Racialization of Islam and Intergroup Conflict

Research has shown that Muslims experience the most religious discrimination in the U.S., compared with other faith groups (ISPU, 2018). Although the extant literature is limited, a few studies have demonstrated that Muslim American adolescents report experiencing significant

religious discrimination (Aroian, 2012; Balkaya et al., 2019). National reports indicate that anti-Muslim hate crimes surged following 9/11 (Kaplan, 2006), increasing 17-fold in 2001 (Federal Bureau of Investigation, 2002; Human Rights Watch, 2002). Additionally, studies across three countries have found that Arabs and Muslims were among the most dehumanized groups, compared to a diverse range of identity groups, driving support for anti-Arab/Anti-Muslim aggression and exclusion (Kteily et al., 2015).

In the current sociopolitical climate, Muslim Americans, and especially individuals of Arab descent, face heightened vulnerability resulting from the racialization of Islam. Joshi (2006) defines the racialization of religion as occurring when "a particular set of phenotypical features, understood in a specific social and historical context, comes to be associated with a given religion." When a religion is racialized, the ethnoreligious oppression of minority groups escalates. Further, sources of discrimination and oppression become ambiguous, as it is difficult to discern whether discrimination is based on race or religion. The long-standing racialization of Islam has been historically rooted in Orientalism, which reflects the Western "othering" of Middle Eastern, North African, and Asian societies through essentialist depictions of these societies as monolithic, undeveloped, primitive, barbaric, and inferior to Western societies (Said, 1978). In fact, studies have demonstrated that Arabs and Muslims are viewed as less evolved and less human than a range of other social identity groups (Kteily et al., 2015).

These depictions, particularly of the Middle East, and the racialization of Islam have greatly increased following the attacks of 9/11. Through widespread media portrayals, Islam has been portrayed as a religion that promotes terrorism, anti-Western ideologies, and oppression of women (Considine, 2017). Such representations have contributed to rampant global Islamophobia, or the exaggerated fear, hatred, and hostility toward Islam and Muslims based on

negative stereotypes (Rana, 2007). As a result, Muslims, and particularly Muslim men (Khalid, 2011), are often perceived as an *enemy* of the U.S., and of Western civilization (Said, 1978). Indeed, representation of the Muslim archetype is greatly gendered, with Muslim men pictured as phenotypically brown-skinned and bearded, violent, oppressive, barbaric, and deviant. Muslim men are categorized as "terrorists" and are subsequently viewed as a threat to national security, providing justification for the state to enact laws and policies that criminalize Muslims (Selod & Embrick, 2013). Muslim women are pictured as veil- or burqa-wearing and are seen as oppressed, subordinate, subjugated, and in need of saving (Khalid, 2011; Selod & Embrick, 2013). In turn, Muslim women are viewed as a cultural threat to society, rather than a national threat, as they are seen as a threat to feminism and Western ideals. Further, the view of Muslim women as oppressed by Muslim men and in need of saving has been employed to justify imperialism and war against Muslim nations (Selod & Embrick, 2013).

Through the racialization of Islam, media depictions and social discourse, the "prototypical Muslim" has been depicted as Arab (Considine, 2017; Joshi, 2006; Shaheen, 2003). Although Arabs are typically racially categorized as White (e.g., through the U.S. Census), they are often rejected from whiteness as they are seen as holding negative stereotypes associated with Islam. As a result, Arabs may experience increased discrimination and thus face greater vulnerability for stress-related mental health problems. Despite the general prejudiced views associated with Arabs, it is important to note there is wide religious, racial and phenotypic diversity of the Arab community. As a result, some Arabs are viewed and treated as White and enjoy the associated racial privileges, whereas others are viewed as existing outside of whiteness and being closer to the Muslim prototype (Selod & Embrick, 2013). The conflation of Muslims and Arabs exists despite the racial/ethnic diversity of the Muslim American community and the

fact that the majority of Arab Americans are in actuality Christian, not Muslim (Samhan, 2001). Early Arab immigrants to the U.S. were mostly Christian and immigrated due to economic conditions, religious persecution, and political reasons (Semaan, 2013). Their attainment of U.S. citizenship was aided by their identification with Christianity and potential distancing from other groups of color (Abdulrahim et al., 2012). More recent waves of Arab immigration comprise mostly Muslims, following increased instability in the Middle East (Semaan, 2013). One study found that Arab Americans who are closer to whiteness (i.e., who identify as white, Christian, live outside of Arab ethnic enclaves, report low Arab American ethnic identity centrality, and who are rated by interviewers as having light skin tone) reported experiencing less discrimination. Yet, these individuals were found to be more negatively affected by discrimination, compared with those further from whiteness, representing the complexity of experiences within the Arab American community and the need for further research (Abdulrahim et al., 2012).

Although Arabs are the group most associated with Muslim prototypicality, South Asians are also sometimes affected by the racialization of Islam, as they have historically been associated with the Middle East. Racially, South Asians cannot be as easily "meltable" into the category of whiteness as Arabs, as they are brown-skinned but are neither Black nor prototypically Asian, as the Asian prototype in the U.S. is East Asian. This racial ambiguity further allows South Asians to be categorized as "Other," sometimes being perceived as Muslim. However, South Asian Muslims may be also be protected from association with Muslim stereotypes as they may be more likely to be associated with other faith groups, such as Hindus and Sikhs (Joshi, 2006). Although data is unavailable on the proportion of South Asian Americans that are Muslim, compared with other faith groups, the percentage of each South

Asian country's population that is Muslim is as follows: Afghanistan (99%), Bangladesh (90%), Maldives (100%), Pakistan (96.3%), India (14.5%), Sri Lanka (9.7%), Nepal (4.4%), and Bhutan (0%; Sawe, 2018).

Intragroup Experiences of Young Muslim Americans

In addition to intergroup conflict, Muslim Americans may also face intragroup tensions that may negatively impact mental health. Islam promotes interdependence, and many Muslim American immigrant communities value interdependence or collectivism over individualism (Al-Mateen & Afazal, 2004). As such, the role and regard of the family, both nuclear and extended, and community is central in Muslim Americans' lives. Respect of elders is prioritized, and families and communities are often governed by a strict patriarchal system (Awad, 2010; Daneshpour, 1998). Parents are often highly involved in their children's lives, setting strict direction, rules, and expectations. Parents may limit their children's exploration and independent identity development due to fear of assimilation or threats to their children's and family's reputation within the Muslim community (Al-Mateen & Afazal, 2004). These values, expectations, and family routines and practices provide a formative context for the identity development of youth and young adults, as Islamic values and cultural norms may appear to be inconsistent with Western American values. Notably, perceived cultural differences may not necessarily represent actual incompatibility of values and morals, but may reflect the results of cultural/identity politics and sociohistorical processes, such as colonialism (Abu El-Haj & Bonet, 2011).

Young Muslim Americans often face peer pressure to participate in activities that are prohibited in Islam, such as dating, premarital sex, and alcohol or substance use. Because such practices are religiously prohibited and contrary to familial and communal expectations,

individuals may experience conflict in navigating their parents' cultures and mainstream American culture (Ajrouch, 2000; Haque, 2004). Moreover, many parents assume that their children do not engage in these activities, despite the fact that research has begun to reveal that Muslim youth and young adults do participate in these activities (Ahmed & Ezzeddine, 2009; Ahmed et al., 2014; Al-Mateen & Afzal, 2004). Muslim Americans who hold cultural or religious identities that differ from their parents may experience intergenerational discord within their families (Ahmed & Ezzeddine, 2009; Asvat & Malcarne, 2008), which has been linked to poor mental health and educational outcomes among second generation Americans (Lui, 2015; Telzer, 2010). This disconnect between youth and their parents may lead youth to feel isolated and like they do not fully belong in their family, Muslim community, or broader American society (Haque, 2004). Additionally, young Muslim Americans may experience a significant lack of family or community support (Ahmed & Akhter, 2006; Ahmed & Ezzeddine, 2009). To cope with these challenges, Muslim American youth and young adults may engage in codeswitching (i.e., modifying their identity and behaviors to accommodate norms in different contexts), in an attempt to maximize their sense of acceptance and belonging among their family and Muslim community members, as well as their non-Muslim peers and broader American society (Ahmed & Ezzeddine, 2009; Vivero & Jenkins, 1999).

Muslim American Mental Health

Given Muslim American young adults' multiple minority status, which may contribute to intergroup and intragroup conflict, investigation of young adults' mental health is imperative. The extant research on mental health problems among young Muslim Americans is very limited, warranting further investigation of this population's mental health needs. One study examined the prevalence of mental health problems treated (based on clinician reports) in various Muslim

mental health or social service centers following 9/11, for 712 young Muslim Americans (mean age = 14.9 years; Basit & Hamid, 2010). This study found that the most prevalent emotional or behavioral problem was Adjustment Disorder (19%), followed by Attention Deficit / Hyperactivity Disorder (ADHD; 16%), mood disorders (15%), and anxiety disorders (13%). However, larger epidemiological studies do not exist, given the limitations of psychological research with this population. Given the diversity of the Muslim American community, Muslim Americans are often erased in psychological research, as they are subsumed across ambiguous ethnic groups (e.g., Arabs are categorized as "Caucasian"; South Asians are subsumed under "Asian") and data on religious identification is typically not collected. Moreover, much of the extant research with Muslim Americans has either focused solely on the experiences of Arab Americans or has not examined ethnic differences within the Muslim American community.

Given the rise of Islamophobia, as well as the heightened surveillance, racial profiling, and discrimination following 9/11, many Muslim Americans experience anxiety, depression, fear, rejection (Abu-Ras & Abu-Bader, 2008; Ahmed & Reddy, 2007), and paranoia (Rippy & Newman, 2006). Among Muslim American adolescents, perceived racism has been found to be positively associated with depression, anxiety, and internalizing and externalizing problems (Ahmed et al., 2011). Additionally, posttraumatic stress disorder (PTSD) symptoms may be especially prevalent for Muslim Americans, who may experience high rates of collective trauma (i.e., historic or current traumatic events directed at a group based on political, racial, religious, or cultural beliefs, or a traumatic event collectively experienced by a group of people; Kira, 2001). Muslim Americans may experience historical trauma, as a result of belonging to groups that have experienced collective trauma (e.g., genocide, war), predisposing them to greater vulnerability to negative effects of stressors and development of mental health problems,

including PTSD and depression (Bombay et al., 2009). They may also experience vicarious or secondary trauma by witnessing the collective trauma of Muslims (e.g., wars and events targeting Muslims; Kira et al., 2014) online (e.g., through social media) or through traditional media outlets (Tynes et al., 2019). Collective trauma may also appear in the form of backlash trauma, as Muslim Americans may face micro- or macro-level aggression as a response to acts of aggression committed by individuals associated with Islam (Kira et al., 2014), contributing to anxiety and fears of being associated with acts of terrorism (Awad et al., 2019). Moreover, many Muslims in the U.S. are refugees who experienced war, displacement, torture or abuse in their country of origin. As a result, they may experience elevated PTSD symptoms, and these symptoms may be transmitted to their children through intergenerational trauma, as trauma may generate biological changes and influence parenting and attachment styles (Bombay et al., 2009).

Few studies have examined the rate of engagement in risk behaviors among Muslim American young adults, although risk behaviors may have significant implications for mental health. One study found that past year prevalence rates of risk behaviors among Muslim college students was approximately 46% for alcohol use, 25% for illicit drug use, 37% for tobacco use, and 59% for premarital sex (Ahmed et al., 2014). These findings reflect high rates of engagement in risk behaviors, despite the religious prohibitions and cultural norms of the Muslim American community, underscoring the need for greater investigation of risk behaviors in this population.

Additionally, Muslim Americans are typically underserved in professional mental health services and may experience various barriers to care (Ahmed & Reddy, 2007). Individuals with mental health problems are often excluded and stigmatized within the Muslim community, given cultural and religious stigmas associated with mental illness (Ciftci et al., 2013), including associations of mental illness with lack of faith, spirit possession, or the evil eye, which may

instill shame in individuals and their families (Amri & Bemak, 2013). Utilization of mental health services may also be perceived as stigmatizing (Ciftci et al., 2013), as individuals may fear appearing weak, may experience distrust of the Western mental health system (Amri & Bemak, 2013), or may fear they would be misunderstood by non-Muslim mental health professionals if they sought professional treatment (Al-Mateen & Afzal, 2004).

Dissertation Overview

Muslim American young adults may face heightened vulnerability for mental health problems due to their multiple minority status, a source of both intergroup and intragroup conflict; however, they may also face multiple barriers to mental health care. Given the limited psychological research with this population, further study is warranted to better understand the mental health needs and determinants of mental health for Muslim American young adults to guide policy and practice. In particular, investigation of Arab and South Asian Muslim American young adults allows examination of Muslim Americans' experiences across racial/ethnic lines, offering insight into Muslim Americans' perceived discrimination, belonging, identity formation, and mental health status within the context of navigating various intergroup and intragroup processes. The previously described intergroup and intragroup processes may be particularly relevant for Arab and South Asian Muslim American young adults, given that Arabs and South Asians are more likely than members of other racial/ethnic groups to be categorized as Muslim by outgroup members, given the racialization of Islam (Joshi, 2006). Moreover, Arabs and South Asians represent the two largest immigrant Muslim groups, thus sharing experiences such as navigating acculturation, intergenerational differences, and complex identity development. Arab and South Asian Muslim Americans are also more likely to come from a multigenerational Muslim heritage, whereas other Muslims are more likely to be converts to Islam (Karim, 2007).

Given their shared histories, there is greater integration between Arab and South Asian Muslim Americans, whereas converts and African American Muslims tend to reside in different ethnic enclaves and experience greater isolation (Karim, 2007).

To address the aforementioned gaps in the literature, this dissertation aimed to better understand the mental health-service gap for Muslim American young adults by identifying mental health needs, determinants of mental health (i.e., perceived discrimination, religious and ethnic group identification, and sense of belonging), and perceived barriers to mental health services for Muslim American young adults. This dissertation comprised three studies:

Study 1: Study 1 utilized a qualitative research design, employing focus group methodology with community stakeholders in Southern California, to understand various community stakeholders' perceptions of determinants of mental health, specific mental health needs, and barriers to mental health service-seeking, for Muslim American young adults (ages 18 to 25).

Study 2: Study 2 employed an online cross-sectional survey of 277 participants from across the country to examine perceived discrimination and group identification as predictors of mental health status among Arab and South Asian Muslim American young adults. This study investigated dual religious and ethnic identification patterns as potential moderators of the discrimination—mental health pathway.

Study 3: Study 3 employed the same cross-sectional survey as Study 2, to investigate familial, communal, and societal sense of belonging as predictors of Arab and South Asian Muslim American young adults' mental health status. This study also examined experiences of marginalization as predictors of sense of belonging.

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CHAPTER 1:

A Qualitative Study of Community Stakeholders' Conceptualizations of Determinants of Mental Health, Mental Health Needs, and Barriers to Service-Seeking Among Muslim American Young Adults

Abstract

Social determinants, including sociopolitical, cultural, communal, familial, and individual factors, significantly shape experiences of mental health problems and service-seeking. Social determinants may assist in explaining mental health disparities and barriers to care, as individuals who belong to marginalized groups experience greater social risk factors. Moreover, minority group members may face heightened vulnerability for experiencing unmet mental health needs. Extant research has typically examined mental health experiences among individuals with a single minority identity, although little research has examined these experiences among individuals who hold multiple minoritized identities, such as ethnic minority and religious minority identities. As both religious and ethnic minorities, many Muslim Americans face heightened risk for the development of mental health problems and underutilization of mental health services. To better understand the perceived mental health needs, determinants of mental health, and barriers to service-service seeking for Muslim American young adults (ages 18 to 25), the current study addresses the following research questions: (1) What do various community stakeholders identify as the most significant determinants of mental health for Muslim American young adults? (2) What are the perceived top mental health needs for young adults? and (3) What are the perceived common barriers to mental health service-seeking for young adults? The current study employed a qualitative research design, using focus group methodology. Six exploratory focus groups with various types of community stakeholders (i.e., Muslim mental health professionals, community leaders, young adults) were conducted. Given the limited research on these topics for Muslim Americans, this study was discovery-oriented in nature. Results indicated that the top determinants of mental health for this population included identity conflict, family conflict, cultural expectations,

socioeconomic or financial issues, sociopolitical climate or structural inequities, and lack of awareness about mental health. We found that that the top mental health needs agreed upon by all groups included depression / depressed mood, anxiety, and stress related to conflict with parents / family. Lastly, the most common barriers to service-seeking for Muslim American young adults included cultural mismatch and other therapist-related barriers, stigma, lack of accessibility of services, concerns related to confidentiality and lack of trust, knowledge of services, and personal attitudes about mental health and treatment. Results provide insight on the mental health experiences of Muslim American young adults and highlight potential targets for mental health prevention and intervention efforts.

Introduction

Individuals' mental health and access to care is significantly influenced by various biological, physical, social, and economic circumstances. There has been increased recognition that social determinants of health – "the conditions in which people are born, grow, live, work, and age"– are critical in explaining the development of many health problems (Commission on Social Determinants of Health, 2008). These conditions may be influenced by families, communities, nations, or global factors and occur at both structural and proximal levels.

Structural determinants are structures that produce social stratification (e.g., economic, political, or education systems), whereas proximal determinants are circumstances of daily life (e.g., family environment, housing). Proximal determinants may be a consequence of structural determinants but may also be produced through cultural, religious, and community factors (Viner et al., 2012). These determinants correspond to socio-ecological approaches to mental health and human development, which highlight individuals' multiple ecological contexts (e.g., interpersonal relationships, community, culture, society; Bronfenbrenner, 1989). As the transition from adolescence to young adulthood is a critical developmental period, investigation of the impact of young adults' various contexts on their health and wellbeing is imperative (Henin & Berman, 2016; Schulenberg et al., 2004; Viner et al., 2012). Because social circumstances vary greatly across groups, social determinants may lead to significant health inequities (Allen et al., 2014). Understanding social determinants of mental health is especially important for members of marginalized groups, as they are more likely to experience social risk factors, leading to heightened vulnerability for mental illness (Meyer, 2003; Seng et al., 2012) and greater barriers to care (Marrone, 2007; Snowden, 2001; Williams & Chapman, 2011).

Social stress theory posits that stress is both a consequence of one's social position as

well as a determinant of mental health. Individuals belonging to low-status groups exhibit higher rates of general psychological distress compared with non-Hispanic Whites, perhaps because they disproportionally face stressful life events and have less access to resources for coping (Aneshensel, 1992; Barnes & Bates, 2017; Czeisler et al., 2020; Liu et al., 2018). Yet, individuals belonging to ethnic minority groups have lower rates of diagnosed mental illness compared with non-Hispanic Whites, possibly due to underreporting or differing cultural experiences of mental illness (Barnes & Bates, 2017; Liu et al., 2018). Individuals belonging to minority groups may experience high levels of unmet needs, as they face barriers to accessing care, leading to underutilization of mental health services (Cook et al., 2017; Marrast et al., 2016).

Research in these areas has typically focused on individuals who hold one minority identity, warranting further investigation of mental health needs and barriers to care for individuals with multiple marginalized identities, as they may be at even greater risk (Cole, 2009; Seng et al., 2012). Given the multiple minority status of many Muslim American young adults, as religious and ethnic minorities, in addition to the limited mental health literature with this population, examination of these issues within the Muslim American community is imperative. Exploratory investigation of community stakeholders' perspectives on the mental health needs, determinants of mental health, and barriers to service-seeking for Muslim American young adults may inform strategies to increase access to, utilization of, and appropriateness of mental health services.

Social Determinants of Mental Health for Muslim American Young Adults

Sociopolitical Factors

Government Policies and Programs. Following 9/11, the U.S. government launched the

War on Terror and has enacted numerous policies and programs aimed at increasing surveillance and profiling of Muslims (e.g., USA PATRIOT Act, National Security Entry–Exit Registration System; Countering Violent Extremism initiatives; Considine, 2017; Selod & Embrick, 2013). Additionally, numerous states have enacted anti-*sharia* bills, targeting Islamic practices. In early 2017, the U.S. government enacted Executive Order 13769, or the "Muslim Ban," banning immigrants from Muslim-majority countries (Ayoub & Beydoun, 2017). By directly dictating individuals' rights, and the institutional practices that enforce exclusionary policies, the government regulates people's inclusion in society and accordingly their sense of national belonging (Abu El-Haj & Bonet, 2007). Thus, by enacting laws that target and exclude Muslim Americans, the government can convey that Muslim Americans do not belong as equals in U.S. society.

Media Portrayals. Muslims are often vilified in the media, through film, television, news, and books (Considine, 2017; Shaheen, 2003). As a result of negative media portrayals and legislated limits on civil rights, Muslim Americans often experience significant racial profiling, including being subject to additional security searches at airports or being removed from airplanes due to Muslim appearance or speaking Arabic (Considine, 2017). Thus, Muslim Americans may experience increased discrimination, paranoia (Rippy & Newman, 2006), anxiety, depression, fear, and rejection (Abu-Ras & Abu-Bader, 2008; Ahmed & Reddy, 2007). Whether through mass media, having negative personal experiences with anti-Muslim sentiment, or witnessing these experiences among family, friends, and community members, Muslim Americans may experience a decreased sense of belonging to U.S. society.

War and Conflict. Many U.S. Muslims are refugees who have experienced war, displacement, violence, torture or abuse in their country of origin, contributing to heightened

PTSD symptoms, and potential intergenerational transmission of symptoms to their children (Bombay et al., 2009). Upon arrival to the U.S., many refugees may experience unemployment, poverty, discrimination, and limited social support (Jaranson et al., 2000). Refugees often experience loss of, or separation from, family members and may have concerns for their safety, contributing to survivor's guilt (Bemak & Chung, 2014). Moreover, Muslim refugees may arrive from countries where the U.S. has recently been involved in wars and conflicts (e.g., Afghanistan, Iraq, Iran; Ahmed & Reddy, 2007), which may lead to internal conflict and insecurity for Muslim refugees, as well as heightened surveillance or discrimination. Similarly, U.S.-born Muslims must grapple with the stress of living in a country that has been involved in numerous wars and conflicts with Muslim-majority countries, countries which may be their ancestral homelands and where their family members may live. Muslim Americans may also experience PTSD symptoms through witnessing the collective trauma of Muslims globally (Kira et al., 2014).

Intergroup Factors

Hate Crimes and Discrimination. Minority group membership places individuals at risk for increased experiences of discrimination (Schmitt et al., 2014), with multiply disadvantaged individuals facing greater exposure to multiple forms of discrimination (Grollman, 2012). Perceived discrimination has been shown to be negatively associated with well-being, self-esteem, life satisfaction, and positive affect, and positively associated with distress and negative affect, especially for members of disadvantaged groups (Schmitt et al., 2014). Among adolescents and young adults, studies have found perceived discrimination to be positively associated with both internalizing problems (e.g., depression, anxiety; Grollman, 2012; Hurd et al., 2014) and externalizing problems (e.g., violence, substance use; Caldwell et al., 2004; Hurd

et al., 2014). Additionally, perceived discrimination may lead individuals to feel that they are viewed negatively by others, leading them to feel that they do not belong (Ahmed & Ezzeddine, 2009). Muslim Americans have experienced significant increases in hate crimes following 9/11 (Kaplan, 2006) and the 2016 presidential election (Considine, 2017), as well as significant discrimination (Abu El-Haj, 2007; Aroian, 2012; Balkaya et al., 2019; Sirin & Fine, 2007).

Peer Victimization. When individuals have positive peer relationships, they may experience connectedness and support (Zine, 2001). However, when peer relationships are negative or threatened, individuals may experience a range of poor mental health outcomes (Stadler et al., 2010). Although research on peer victimization among young adults is limited, the extant research on adolescents suggests that victimization in adolescence prospectively predicts mental health outcomes in young adulthood. Studies have found that peer victimization in adolescence has long-term consequences for mental health in young adulthood, including increased risk for internalizing problems (e.g., anxiety, depression, suicidality; Copeland et al., 2013; Leadbeater et al., 2014), aggression (McGee et al., 2011), and problematic social relationships (Wolke et al., 2013). Additionally, research has found that victims of peer victimization in childhood and adolescence are at increased risk of revictimization in the workplace during young adulthood (Brendgen & Poulin, 2017). Moreover, studies have found that 53% of Muslim American high school students reported experiencing bullying (compared with a national average of 20%), and that 49% of Muslim American middle school students reported peer victimization (Baadarani, 2016). Muslim American youth are often called names such as “terrorist,” “Bin Laden,” or “towel head” and may hear remarks such as “go back to your country” (Albdour et al., 2017), which may increase their sense of alienation and their vulnerability for mental health problems into young adulthood.

Cultural Factors

Attempts to define and understand mental illness have increasingly underscored the importance of culture (i.e., the shared beliefs, attitudes, and values that a group of people hold and that influence their customs, norms, practices, and psychological processes; APA, 2003). Culture significantly shapes perceptions and experiences of psychological processes, including mental illness, as it may directly influence mental illness etiology by determining which psychological problems arise within a particular cultural group (Weisz et al., 1997). For example, research has shown that, compared with non-Hispanic Whites, South Asians are more likely to experience somatization, such that they may interpret their mental health symptoms as physical illnesses, leading to medical rather than psychological help-seeking (Karasz et al., 2016). Additionally, cultural norms may influence which behaviors are seen as abnormal or problematic. For example, in some Middle Eastern cultures, hearing voices or having visions may be accepted as normal, whereas the same experiences in many Western cultures would be deemed abnormal and indicative of mental illness (Al-Issa, 1995). Accordingly, culturally shaped notions of acceptable social behavior and internalized stigma attitudes may shape manifestations of distress in young people (Lau et al., 2016).

Intragroup Factors Within the Muslim American Community

Given that members of many Muslim immigrant communities (e.g., Arabs, South Asians) hold collectivist values in which relationships are highly prioritized, examination of relationships and belonging within the Muslim American community is imperative. Belonging to a community may provide individuals with social capital, including social support, social cohesion, and civic and community participation, which all promote positive health outcomes (Viner et al., 2012). Belonging to a faith community, in particular, may confer protection in the face of stressors, as

religion or spirituality may provide direct benefits of safety, security, guidance, sense of purpose, and answers to existential questions (Kinnvall, 2004; Pargament, 2002). Religion also offers indirect benefits through organized support networks, providing a sense of community and belonging, access to resources, and social support (Graham & Haidt, 2010; Pargament, 1997).

Yet, young Muslim Americans may also experience several intragroup stressors within their Muslim community, which may lead them to feel a diminished sense of belonging and experience negative mental health outcomes. Muslim Americans have described prevalent intra-group policing and judgment within the Muslim community, which may contribute to tension and isolation. In response to outside anti-Muslim pressures, many Muslim Americans have begun to distinguish "good Muslims" from "bad Muslims" by monitoring each other's religious practices (e.g., women wearing *hijab*, completion of daily prayers, abstaining from alcohol; Sirin & Fine, 2007). This may lead individuals to over-regulate and police the religious identity and practices of other community members. Individuals who experience a mismatch between their own held values, beliefs, or practices and the norms of their Muslim community may experience judgment or a lack of belonging if they do not conform to the standards and expectations of a "good Muslim."

Additionally, in response to governmental and societal targeting, individuals may distinguish between "good" and "bad" Muslim *citizens*, with many Muslim Americans coping with marginalization by aspiring to be "good" Muslim citizens. "Good" Muslim citizens are depicted as loyal to the U.S., patriotic, and politically complacent, and often characterize themselves as "moderate" or "progressive" to distance themselves from "bad" Muslims. On the other hand, "bad" Muslim citizens are depicted as outspoken against the U.S. government, politically active, and dissident (Maira, 2009; Riley, 2009). This division has become common

across different Muslim communities and religious centers and has been employed effectively by the media and government to sow division within the Muslim American community and to subdue groups seeking civil rights protections (Mamdani, 2002).

Family Factors

Family factors have been well-documented as a determinant of health, as families are seen as the primary influence on youth development (Irwin et al., 2007), and family cohesion has been shown to be a critical protective factor for adolescents and young adults (Fosco et al., 2012). As Arab and South Asian Muslim cultures emphasize the highly involved role of the nuclear and extended family in one's life, examination of family dynamics within these communities is especially important. Given that many Arab and South Asian Muslim American young adults are children of immigrants, they may experience intergenerational differences from their parents (Ahmed & Ezzeddine, 2009; Asvat & Malcarne, 2008). The acculturation-gap distress hypothesis posits that children in immigrant families acculturate to the host culture more quickly than their parents, creating an intergenerational clash of values and preferences, which contributes to family conflict and youth maladjustment, including poor mental health and educational outcomes (Lui, 2015; Telzer, 2010). Given fears of cultural loss, assimilation, or threats to their family's reputation within the Muslim community, parents may limit their children's exploration and independent identity development (Al-Mateen & Afazal, 2004). Notably, significant gender differences exist, with boys often experiencing greater leniency, whereas girls are more closely monitored by their parents, especially with regard to mixed-gender activities, social activities, pre-marital sex, and substance use (Aroian et al., 2014). Heightened parental monitoring may lead to greater intergenerational conflict for women.

Individual Factors

Sociodemographic Factors. Socioeconomic status has long been recognized as a significant risk factor for mental health problems, as individuals who are poor and disadvantaged suffer disproportionately from mental illness and may experience greater negative consequences (Allen et al., 2014; Patel & Kleinman, 2003). Additionally, one's race/ethnicity may have significant implications for mental health, especially based on their group's social standing. Among Muslim Americans, Arabs may experience the greatest levels of anti-Muslim discrimination, given their depiction as the Muslim prototype (Considine, 2017; Joshi, 2006; Shaheen, 2003). Immigrant generational status may also significantly shape individuals' mental health. Immigrants may have difficulties navigating economic changes, educational changes, language and cultural barriers, and acculturation challenges (Ahmed & Reddy, 2007). Although immigrants are generally found to have better mental health outcomes than their co-ethnic counterparts born in the U.S. (Alegría et al., 2008), Muslim immigrants may face greater mental health risk factors than their U.S.-born counterparts, due to the sociopolitical climate and their own potential experiences as displaced refugees (Ahmed & Reddy, 2007). At the same time, second-generation Muslim Americans may have increased risk for mental health problems compared with their immigrant parents, consistent with the immigrant paradox, a pattern of epidemiological findings revealing that immigrants have lower prevalence rates of psychiatric disorders relative to their U.S.-born counterparts. This has been termed a paradox because immigrants often have lower social capital than U.S.-born co-ethnics; however, U.S.-born ethnic minorities often report experiencing greater minority stressors, intrafamilial cultural conflict, and loss of culturally protective factors (e.g., family cohesion) that tend to protect immigrant generations (Lau et al., 2013).

Identity Conflict. Muslim American young adults may be confronted with challenges in

their identity development, including identity confusion or difficulties navigating their multiple identities (Sirin et al., 2008; Sirin & Fine, 2007; Tindongan, 2011). Young adults must navigate different cultures, which may appear to be in conflict with one another (i.e., American culture, heritage culture, religion) as a result of cultural politics and sociohistorical processes (Abu El-Haj & Bonet, 2011). When a cultural group is under attack, individuals may cope differently in an attempt to protect their self-esteem and well-being. Among individuals living within the diaspora (e.g., Arab and South Asian Americans), some individuals may attempt to distance themselves from their threatened identity, whereas others may become more invested in their threatened identity (Sirin & Fine, 2007), in order to preserve their cultural heritage, create collective safe spaces, and educate the public about Islam (Abu El-Haj & Bonet, 2011). The ways in which an individual responds to their cultural or social identity being threatened may have significant implications for their mental health.

Notably, Muslim American youth and young adults often face peer pressure to engage in activities that are prohibited in Islam (e.g., premarital sex, alcohol and substance use) and engage in these activities at high rates (Ahmed & Ezzeddine, 2009; Ahmed et al., 2014; Al-Mateen & Afzal, 2004). Engagement in such behaviors may confer direct negative effects on mental health when they are high risk (e.g., illicit substance use). However, pathways to mental health are likely indirect to the extent that these behaviors generate family conflict or identity dissonance within individuals, contributing to isolation or lack of belongingness. As a result, in the process of forging their own identity, Muslim American young adults may engage in codeswitching, whereby they modify their identity and behaviors to accommodate the cultural norms in their different ecological contexts (i.e., family, peer, community) in an attempt to maximize their sense of belonging. For example, individuals may maintain a religious or cultural identity among

their family or community members and maintain a separate American identity among individuals outside of their family or community (Ahmed & Ezzeddine, 2009; Vivero & Jenkins, 1999). Thus, Muslim American young adults may experience a fragmented identity and "hyphenated selves," as they attempt to reconcile and integrate their sense of self across multiple worlds (Sirin & Fine, 2007). The concept of bicultural identity integration reflects the phenomenon of managing multiple cultural identities that is comprised of processes related to: (1) cultural *blendedness* versus compartmentalization (i.e., the perceived degree of overlap versus dissociation between cultural identities) and (2) cultural *harmony* versus conflict (i.e., the perceived degree of compatibility versus tension / clash between cultures; Huynh et al., 2011). Research with immigrant youth has shown that successful integration of one's heritage culture and dominant cultural identities is optimal for developmental outcomes (Berry, 1997; Oppedal et al., 2005), whereas feeling a lack of identification with both cultures (Fisher et al., 2000; Romero & Roberts, 2003), or having strong identification with each culture but poor integration of the two cultures, are associated with greater mental health problems (Huynh et al., 2011).

Barriers to Service-Seeking

Although Muslim American young adults may experience heightened vulnerability for mental health problems, due to the array of aforementioned potential risk factors, Muslim Americans are often underserved in professional mental health settings (Al-Mateen & Afzal, 2004). In order to address unmet needs, barriers to professional care must be understood. Further, research is needed to understand the informal help-seeking and sources of support that Muslim American young adults may utilize when faced with mental health challenges, as young people may be more likely to turn to informal sources of support rather than professional services (Wilson et al., 2005). Identifying informal sources of support may offer an opportunity to build

upon these supports as a resource for distressed young adults and to address barriers to care.

Structural Barriers

Commonly known structural barriers to mental health services include lack of insurance, financial constraints, time constraints, transportation challenges, and unavailable or inaccurate information about services available and how to access them (Owens et al., 2002). Studies have found that, as adolescents transition into young adulthood and switch from child-based to adult-based mental health services, many of them drop out of treatment (Singh et al., 2010). During this transition, young adults are faced with increasingly independent decision-making while many also experience limited insight regarding mental health needs, negative emotions related to service-seeking (e.g., fear, hopelessness), and mistrust of services (Munson et al., 2011).

Culturally-Influenced Beliefs

Extant research has pointed to culturally-influenced beliefs about the etiology of mental illness as one contributor to racial/ethnic disparities in mental health care (Yeh et al., 2005). Young adults' beliefs about the etiology of mental illness may dictate which types of care they seek for themselves. For example, individuals who believe that mental illness is rooted in spiritual deficits may consult a religious leader or encourage an increase in religious practices, whereas individuals who believe problems are biological may seek medical treatment (Yeh et al., 2005; Yeh et al., 2014). Thus, if individuals do not believe that their problems are caused by factors that can be addressed in psychotherapy, it is highly unlikely they would seek such treatment.

Understanding clients' cultural beliefs about mental illness and treatment is critical in order for providers to deliver culturally responsive care. Research examining "cognitive match" between therapists and clients (i.e., agreement on causes of problems, illness course, and

treatment), rather than a narrow focus on racial/ethnic match, indicates that cognitive match may be a more proximal predictor of outcomes (Zane et al., 2005). Thus, if clients hold cultural beliefs and expectations that differ from their providers, they may face greater barriers to treatment (Yeh et al., 2019). Consistent with this belief, many Muslim Americans may presume or fear that they would be misunderstood or would experience prejudice by non-Muslim mental health providers, keeping them from seeking services (Al-Mateen & Afzal, 2004; Daneshpour, 1998).

Stigma

Mental illness stigma may be related to cultural beliefs about mental illness, historical health-related abuse and injustice by the government or health care system (Reverby, 2010), as well as cultural norms, values, and socialization (Abdullah & Brown, 2011). Extant research has shown that mental illness stigma may be more complex for individuals from ethnic minority groups, reflected in the concept of "double stigma," or the prejudice / discrimination experienced as a result of an individual's minoritized racial identity and mental health status (Gary, 2005). This concept posits that the process and effects of stigmatization will be more negative and qualitatively different for individuals with multiple minority status.

In various minority communities, stigma related to mental illness and service-seeking has been shown to be pervasive (Gary, 2005; Thornicroft, 2008), and stigma may be tied to ethnocultural or religious conceptualizations of mental illness (Abdullah & Brown, 2011; Wesselmann & Graziano, 2010). Among Muslims, mental illness may be perceived as a test or punishment from God (Abu-Ras et al., 2008) or as a result of *jinn* (i.e., evil spirits; Weatherhead & Daiches, 2010). Such beliefs may be seen as negative reflections of an individual and may foster shame, contributing to barriers to sharing their problems and accessing services (Aloud &

Rathur, 2009; Ciftci et al., 2013). Within highly collectivistic or interdependent communities, mental illness may also be perceived as a threat to the family. For many Muslim immigrant families, psychological or behavioral problems in children may be viewed as a parent's fault or failure (Daneshpour, 1998). Moreover, avoiding threats to one's social appearance, community standing, or marital prospects can lead Muslim families to keep mental health problems concealed and not to be shared outside of the family with either informal (e.g., friends) or professional supports (Ciftci et al., 2013; Daneshpour, 1998; Papadopoulos et al., 2002).

The Current Study

In order to develop efforts to increase access to, utilization of, and quality of mental health services for individuals from minoritized groups, it is imperative to understand social determinants of mental health and factors that may promote or hinder mental health care. A qualitative research design that explores community members' perspectives on these topics provides necessary insight into the local context of mental health in particular communities, especially communities that have been understudied (Palinkas, 2014). Gathering various community members' perspectives, rather than relying on expert opinion or quantitative methods, empowers individuals to speak from their lived experience and in their own voice. In turn, community members are able to play a more active role in the research meant to serve them, and researchers are able to learn from those affected by the issue being studied rather than imposing a priori beliefs (Green et al., 2003). The current study seeks to understand community stakeholders' perceived determinants of mental health, specific mental health needs, and barriers to service-seeking for Muslim American young adults (ages 18 to 25), an understudied multiple minority group that may be at heightened risk for development of mental health problems and underutilization of mental health services. To achieve this aim, the current study addresses the

following research questions: (1) What do various community stakeholders (i.e., Muslim mental health professionals, community leaders, young adults) identify as the most significant determinants of mental health for Muslim American young adults?; (2) What are the top mental health needs for young adults, from the perspective of community stakeholders?; and (3) What are barriers to mental health service-seeking for young adults, from the perspective of community stakeholders? Given the limited research on these topics for Muslim American young adults, this study is discovery-oriented in nature and no specific hypotheses were made.

Method

The current study is focused on various community stakeholders' perceptions of determinants of mental health, mental health needs, and barriers to mental health service-seeking, for Muslim American young adults. Given that this is a new area of investigation, with little extant research available, the current study employed a qualitative research design using focus group methodology. Data was collected between August and November 2020, and the institutional review board of the University of California, Los Angeles, approved all study procedures.

Participants

Participants included 29 community stakeholders based in Southern California, including Muslim mental health professionals (n = 9), community leaders (i.e., religious leaders, non-profit / organization leaders, self-identified community leaders; n = 10), and young adults (ages 18 to 25; n = 10). Participants were predominantly female (75.9%), were 31.33 years old on average (SD = 10.05 years), and were mostly 2nd generation immigrants (72.4%). Participants were mostly South Asian (51.7%) and Arab / Southwest Asian / North African (37.9%). See Table 1 for full sample characteristics.

Participants were recruited utilizing snowball sampling, a sampling method commonly used with qualitative research, especially with hard-to-reach populations. Snowball sampling originated in and is often used in public health research and offers a pragmatic and culturally responsive way to reach groups that are often excluded from research (Sadler et al., 2010). Through snowball sampling, the researcher identifies initial participants to recruit, and research participants refer other potential participants to the study (Liamputtong, 2011). Initial Muslim mental health professional participants were identified through an existing directory of Muslim therapists in Southern California (i.e., www.socalmuslimtherapists.org). Initial community leader participants were identified through the Institute of Knowledge, an Islamic institute that hosts a chaplaincy program across Southern California, existing non-profit organizations (e.g., Islamic Shura Council of Southern California, Council on American-Islamic Relations, Access California Services), and Islamic schools (e.g., New Horizon School). Initial young adult participants were recruited through social media advertisements at university and community college organizations serving Muslim students (e.g., Muslim Student Association). Focus groups were conducted on Zoom, a HIPAA-compliant videoconferencing software, due to the COVID-19 pandemic.

Focus Groups

The current study utilized focus group methodology, in order to gain insight into the perspectives of various community stakeholders on the topic of mental health among Muslim American young adults. Focus groups, rather than individual interviews, are especially instrumental in exploratory cross-cultural research with communities or groups with which limited extant research exists (Liamputtong, 2011). Focus groups promote interaction and communication between participants, providing insight into participants' experiences and beliefs,

in their own language, thus enabling researchers to gain insight into participants' own meanings and understandings about the topic of interest (Wilkinson, 1998). As focus group participants engage in discussions, researchers are able to assess similarities and differences between participants' experiences and perspectives, and interactions between participants may reveal participants' shared experiences of everyday life and culture (Liamputtong, 2011). Notably, by exploring a topic of interest with a group, rather than just one individual, researchers are able to gain better insight into *why* participants hold certain thoughts and beliefs, as participants may express strong views and opinions, and may likely need to explain or defend their thoughts to other participants. Further, as participants build on each other's statements, researchers are able to witness collective sense-making, seeing *how* views are constructed, expressed, and defended, allowing an opportunity to understand how beliefs are socially constructed (Wilkinson, 1998). For example, focus groups may offer an opportunity to understand why particular beliefs about mental health are common within the Muslim American community, and can provide insight into the views and discourses that Muslim American young adults may be surrounded by, which may shape their own mental health experiences and attitudes towards service-seeking.

In the current study, homogenous focus groups were used, wherein participants share some aspects of their social and cultural backgrounds and have similar lived experiences. Such focus groups are appropriate for research aiming to produce insight into the thoughts or experience of participants regarding a specific topic. Homogenous focus groups promote greater comfort and fluid discussion among participants, which is particularly important in focus groups involving sensitive issues (Liamputtong, 2011). For the current study, focus groups were held with three types of community stakeholders (i.e., Muslim mental health professionals, community leaders, young adults). In particular, six focus groups were conducted, with two

focus groups per stakeholder type, and three to six participants per focus group. Recommended sizes of focus groups vary, with some researchers recommending between six and ten participants in each focus group session (Liamputtong, 2011), and others stating that the ideal size is between four and eight participants (Kitzinger, 2005). Smaller focus groups of four to six participants are becoming increasingly popular (Krueger & Casey, 2009), as smaller groups provide an environment in which participants can engage more freely, providing more room for participants to speak and explore issues in greater detail, often leading to more relevant and interesting data (Liamputtong, 2011).

Focus Group Instruments

Focus groups were approximately 90 minutes long, the typical length of focus groups (Liamputtong, 2011). A semi-structured group session, moderated by the Principal Investigator (PI), was utilized to obtain stakeholders' perceptions on the following topics: (1) determinants of mental health; (2) mental health needs and priorities for Muslim American young adults; and (3) barriers to and facilitators of mental health service-seeking for young adults. The PI asked questions related to these topics, encouraging discussion among participants for each question, and facilitated interactive activities. Interactive activities are often helpful to promote engagement, encourage sharing among participants who may otherwise be quiet or reluctant, and discuss sensitive topics (Colucci, 2007). See Appendix A for the Focus Group Guide.

The first section of the focus group assessed perceived mental health needs and priorities for Muslim American young adults. A card sorting activity was utilized, in which participants were provided a list of 31 different mental health-related problems that young adults may face, including problems related to anxiety, depression, trauma, substance use, belonging, and life stressors (e.g., stress related to discrimination), among others. Participants were instructed to

work together to categorize how important they think it is for each problem to be addressed within the Muslim American community. Follow-up instructions noted: "While thinking about this, you might consider how common you think the problem is among Muslim American young adults, how much of an impact you think the problem has, or how able young adults are to talk about and deal with these problems currently." Participants discussed each listed problem and sorted problems into three groups, including problems that are *most important* to address, *least important* to address, and *in the middle* in terms of importance of being addressed. Participants were also allowed to add additional problems that were not initially listed but that they felt were important to include. Following this activity, participants were asked to rank the top three problems that were most important to address and discuss why they selected those problems.

The second section of the focus group focused on determinants of mental health. A free-listing activity, in which participants were asked to collectively generate a list of potential causes or sources of mental health difficulties or emotional problems for Muslim American young adults. All responses were written on the screen for participants to view during the activity. Following the activity, participants discussed and selected the five most significant or important determinants of mental health that they listed. Free-listing is often used in cultural research and has been recommended for exploratory research, as it limits the researcher's biases and imposition of a priori assumptions (Colucci, 2007).

The third section of the focus group focused on mental health service-seeking. After being provided a definition of professional mental health services, participants were asked to discuss barriers to professional mental health service-seeking for Muslim American young adults. The focus group concluded with the PI providing an opportunity for participants to share final thoughts or ask questions.

Focus group participants were also asked to complete a brief Background Questionnaire, including questions about their age, gender, profession, race/ethnicity, religious identification, and generational status. See Appendix B for the Background Questionnaire.

Qualitative Coding and Analysis Plan

Research Question 1

To address *Research Question 1* (i.e., What do various community stakeholders identify as the most significant determinants of mental health for Muslim American young adults?), each group's completion of the free listing activity was analyzed by the PI to identify themes across the six groups related to top perceived determinants of mental health. The final free listing results were examined by the PI, and then transcripts were reviewed in detail with the goal of immersion to seek explanation for the pattern and ordering of determinants identified. Through this immersive process, the PI identified themes that explained groups' selection processes, as well as to capture similarities and differences across groups and stakeholder types. Illustrative quotes were selected to highlight emergent themes.

Research Question 2

To address *Research Question 2* (i.e., What are the top mental health needs for Muslim American young adults?), each group's completion of the card sorting activity was analyzed by the PI to identify themes across groups related to problems perceived to be *most important* to address for Muslim American young adults. A similar analysis process to *Research Question 1* was undertaken, such that final card sorting results were initially examined by the PI, followed by immersion in the transcripts to seek explanation for the results. The PI identified themes to explain groups' selection processes, as well as similarities and differences across groups, in addition to selecting illustrative quotes to highlight themes.

Research Question 3

To address *Research Question 3* (i.e., What are barriers to mental health service-seeking for young adults?), participants' discussions in response to a question about barriers to professional mental health service-seeking for Muslim American young adults were examined. Given that this was an open-ended discussion question, rather than a structured activity with specific results (as in Research Questions 1 and 2), a structured coding process was utilized for analysis.

Focus groups were transcribed by an undergraduate research assistant. Excerpts from the transcripts, including structured discussion questions about mental health service-seeking, were analyzed using a qualitative methodology recommended for mental health services research (Palinkas, 2014). Specifically, this methodology employs a coding consensus, co-occurrence, and comparison approach (Willms et al., 1990) and utilizes grounded theory (Glaser & Strauss, 1967), an inductive approach that allows codes and themes to emerge from the data, rather than from a priori theoretical hypotheses. First, the PI and research assistant reviewed all transcripts to select one transcript per stakeholder group that provided the richest data. The PI and research assistant then reviewed the three selected transcripts, in order to gain a general understanding of the content as it related to barriers to mental health service-seeking. Next, this review team independently documented initial impressions of codes and met to reconcile their initial codes and generate a code structure. The PI then developed a codebook including a code list and code definitions (see Appendix C for full codebook). The review team members independently completed initial coding on each transcript, coding one focus group transcript per week utilizing Dedoose qualitative analysis software, Version 9.0.46 (Dedoose, 2022). The review team used a "constant comparison" method (Glaser & Strauss, 1967) to assign codes to transcript excerpts

based on the initial coding scheme, while being permitted to suggest emergent codes that were subsequently agreed upon through consensus discussions. In this manner, existing codes were refined, and new emergent codes were identified inductively, which were reflected in a finalized code structure. All transcripts were coded by two independent coders, and coders met to discuss coding discrepancies and reach consensus on final codes to be applied to each excerpt. Following coding of transcripts, the coding team engaged collaboratively in qualitative analyses of the coded data. The team categorized groups of codes into meaningful overarching categories and explored the relationships between codes and categories, in order to identify themes captured across focus group discussions. Using Dedoose Version 9.0.46 (Dedoose, 2022), the coding team created hierarchical categories under which similar or related codes were categorized, resulting in a code taxonomy (Bradley et al., 2006), as shown in Appendix C. The PI examined the frequency of each barrier code by stakeholder type, and codes were reviewed and compared in order to identify emergent themes. Representative quotations illustrating each theme were compiled from transcripts.

Results

Research Question 1: Determinants of Mental Health

To identify community stakeholders' perceptions of the top determinants of mental health for Muslim American young adults, results of the free-listing activity were analyzed. Participants were asked to collectively list the different potential causes or sources of mental health difficulties, or emotional problems, for Muslim American 18- to 25-year-olds. Following the free-listing, each group was asked to select the five most significant or important causes. Six themes emerged that encompassed the top five causes of mental health difficulties across all the focus groups, including: (1) *identity conflict, (2) family conflict, (3) cultural expectations, (4)*

socioeconomic or financial issues, (5) sociopolitical climate or structural inequities, and (6) lack of awareness about mental health. Full results of the free-listing activity, by stakeholder type, are shown in Table 2.

Identity Conflict

Across five focus groups, identity conflict was identified as being one of the top five causes of mental health difficulties. Specifically, many participants discussed the challenges that result from Muslim Americans having to navigate multiple intersectional identities, including their religious, ethnic, and American identities. For example, one mental health professional reported: *"[There is a] problem with identity, meaning their identity of them being Muslims, and whatever the origin of their parents are, and the American identity, and feeling confused as to where to fit or which one to take on more. So that's a conflict."* Another mental health professional stated:

> *I think that the intersectionality of identity or...identities that one person holds like as we talked about like a skin color or gender, men versus women, White versus Black, so intersectional identity I think is something that affects most of the issues that Muslim Americans in general face, especially this age group.*

Young adult participants especially highlighted the spiritual or religious difficulties they face in forming or maintaining their religious identities within American culture: *"People are like...oh [I'm] Muslim, should I be feeling this way? Am I Muslim? Am I a good enough Muslim?"* Another young adult discussed the identity challenges stemming from American work culture:

> *I would put identity [as a cause] because as a young working person, I see a lot of folks wanting to join in on the happy hours in terms of acceptance and even just going up the corporate ladder and if you don't, it's like "Oh why is so-and-so not here? Well, they're*

Muslim, they don't drink," and then it's kind of like you're deemed as this not fun, accepting person. So I would say identity because you're constantly struggling to, you know, follow ***deen*** *[Translation: religion].*

A community leader also highlighted this tension when stating: *"There is this cognitive dissonance…[between] Muslim identity and the mainstream culture, and that creates a lot of tension within, inside of a person for sure."* Another community member shared that, as a result of this cognitive dissonance, *"there's always a duality. The majority of people are living this dual life."*

Family Conflict

Across four focus groups, family conflict was identified as being one of the top five determinants of mental health, while the other groups also included family conflict as a significant cause of mental health difficulties but not in their top five list. Many participants discussed the challenges that exist between Muslim American young adults and their parents specifically. For example, one mental health professional stated that young adults experience *"conflict between what they want from their lives versus what their parents want for them from their lives."* Several participants shared that a factor contributing to conflict between young adults and their parents is the lack of open communication, wherein young adults do not feel like they can discuss certain topics with their parents or receive support from their parents. For example, one young adult stated:

Maybe the notion that talking, or like expressing your opinions, is shown as disrespectful to your parents. Like you're saying, "Like this is what's bothering me from you," and they're like "Oh my God, how dare you bring this up? How dare you bring up the thing that caused you trauma?"

This same young adult also discussed parents' use of "immigrant guilt" to suppress certain conversations or demand respect from their children: "*They're like 'I went from country to country to bring you here.'"* One mental health professional highlighted the impact of lack of communication on young adults:

> *I think there's a huge communication gap. Parents don't know how to talk to their kids, and it's very much a culture like "Oh, let's not talk about anything," and then kids are kind of left to just wander or now be lost or just do things secretly, and it's just like this never-ending spiral.*

Importantly, participants also discussed gender differences in family conflict, such that Muslim women tend to experience significantly more stress and difficulties related to their families. For example, one mental health professional shared:

> *I think part of that point also is just the difference between a male and a female Muslim, and the experience that they have. I don't know how you can kind of differentiate that, but I think that's really important. A female Muslim and her kind of struggles when it comes to family, stress, conflict, parental expectations, compared to a male, and how that kind of plays out. I don't see that when it comes to a source of mental health challenges or difficulties, issues for males, but I definitely see that for females.*

Cultural Expectations

Across three focus groups, cultural expectations were identified as being part of the top five determinants of mental health, while several other groups included cultural expectations as a significant cause of mental health difficulties but not in their top five list. Many participants discussed cultural pressures placed on Muslim American young adults related to dating or marriage. One mental health professional shared that there is *"a lot of pressure from family in*

regard to career and spouse." Several young adults discussed cultural challenges related to marriage, especially for Muslim women. Specifically, participants discussed the expectations for Muslim women to get married to someone parents approve of, at a young age, and with limited agency relative to men. One young adult stated: *"I feel like the idea, or the entire notion of how the man is the one who chooses the bride, like within our culture is so wrong."*

Some participants discussed the conflation of culture and religion, with cultural expectations not always aligning with religious principles or rules. For example, one mental health professional shared that young adults experience *"cultural expectations, and then that...the meshing of culture and religion driving them away from religion unfortunately"* while another stated: *"Sometimes even that being around marriage, like 'No, you have to get married, no one's going to marry you with a* ***hijab*** *[Translation: headscarf] on,' and them getting more confused on what to do."*

Tied to cultural expectations were expectations of upholding a level of perfectionism in order to maintain one's individual or family reputation. One community leader shared: *"I'm thinking about folks who are afraid of even verbalizing, you know, their struggles because of reputation. They don't want to tarnish their reputation."* One mental health professional stated: *"There is a culture of fear that some Muslims adopt, and this can be a source of anxiety and depression...Fear of making mistakes, doing anything wrong."*

Notably, participants highlighted significant gender differences in the cultural expectations placed on Muslim American young adults. Several participants discussed cultural expectations placed on men in regard to suppressing emotions, with one young adult stating:

> *I know that there's a huge challenge with men expressing more of their emotions, and I think it's like...although there's challenges to all genders when it comes to mental health,*

but I think in the Muslim community, in other communities, it's way, honestly it's way more challenging for men.

Another young adult linked this struggle to notions of masculinity, stating: *"It's kind of like the idea of them having to uphold their...an idea of masculinity and not being able to express emotions and be open with what they're feeling."*

Socioeconomic or Financial Issues

Across three focus groups, socioeconomic or financial issues were identified as being part of the top five determinants of mental health, while several other groups included these issues as a significant cause of mental health difficulties but not in their top five list. Numerous participants discussed the conflation of socioeconomic status with other daily challenges that impact mental health. For example, one community leader shared: *"With low socioeconomic status, you have a combination of other issues that happen that go beyond just finances if that makes sense, just the realities of, I don't want to say poverty, but being working class and things like that."* Additionally, one young adult highlighted the pervasive impact of financial stress: *"I think you could even be simple and say even money is a cause of a lot of mental health [problems]. School, work, just...not having certain resources on a daily basis, that's really pressing on people's minds."*

Sociopolitical Climate or Structural Inequities

Across three focus groups, the sociopolitical climate or structural inequities were identified as being part of the top five determinants of mental health. The positionality of Muslim Americans in the United States, particularly following 9/11, was highlighted as especially important for young adults as they were raised immediately following 9/11. For example, one mental health professional stated:

I feel like structural inequities would still even be up there right now looking at...just even being in like the post 9/11, like a lot of them were born in the post 9/11 era so regardless of which subculture, it still shows up in that sense.

The larger sociopolitical climate was reported to have individual impacts on Muslim American young adults by instilling a fear of discrimination, racism, or Islamophobia. Interestingly, while all mental health professional and community leader focus groups raised this theme as a determinant of mental health, no young adults listed the sociopolitical climate or structural inequities as a driver of mental health difficulties.

Importantly, participants highlighted racial / ethnic differences within the Muslim American community in regard to differential impacts of the larger sociopolitical climate. Specifically, participants distinguished between the experiences of immigrant Muslim communities (e.g., Arab, South Asian) and Black Muslim communities, which may be more likely to experience *"other things like poverty or racism or any structural inequities that do cause stress on this age group,"* as one mental health professional shared. Another mental health professional also stated:

I think part of what we're talking about here is the first generation versus second generation, so we're talking a lot about kind of the immigrant Muslim experience versus kind of the second kind of indigenous kind of Muslim experience. The Black community and the Muslims that kind of come from that community, African American, a lot of that difficulty that we're talking about still lies in a very kind of...bubble, if you will.

Lack of Mental Health Awareness

Across three focus groups, lack of awareness about mental health problems was identified as being one of the top five determinants of mental health, while several other groups

included lack of mental health awareness as a significant cause of mental health difficulties but not in their top five list. Participants shared that Muslim American young adults are often unable to understand their own mental health experiences, or they are impacted by broader cultural views of mental health that perpetuate or worsen their individual mental health. For example, one mental health professional stated:

> *I think there's more of an internal conflict of maybe guilt and shame from...when it comes to depression or anxiety, you shouldn't feel that way if you're religious, so I think there's that level of maybe some individuals feeling really maybe even embarrassed to admit so…I think for somebody they think of it as "Oh, it's a lack of faith," when in reality it isn't a lack of faith, and I think…then that's just going to tie more into the self-awareness or even being educated about depression and anxiety, where it could be nurture versus nature.*

Young adult participants also discussed the religious or cultural views of mental health as a determinant of mental health difficulties. For example, one young adult shared:

> *When people think you're supposed to look to your **deen** [Translation: religion], so practice more prayer and…read more Quran, so like, like I guess denying the fact that our bodies are so complex and our brains are so complex, and it takes more than just like, I don't know.*

One community leader discussed how a lack of awareness about mental health problems and treatment can keep individuals from addressing their struggles, which then perpetuates their problems:

> *I think sometimes when they don't reach out for support, they think if they address something, it's going to happen. So if they address problems in the marriage, divorce is*

going to happen. If they address problems with their son, you know, that son will get an idea of...to do something else. I think just psychoeducation about the entire mental health field and what is possible through it. I think also people are afraid that if they go see a therapist, the first thing they will say, "Go to see a psychiatrist and take medicine." They're afraid of psychiatric medications as well. I think it's just lack of education about the field.

Additional Themes

Additional noteworthy themes that emerged in the free-listing activity but were not as prevalent included barriers to accessing mental health services, social media or technology, deficits in spirituality or connection with God, lack of healthy and supportive relationships, and poor work-life balance.

Several participants highlighted a lack of healthy and supportive relationships, as a result of both large social structures and graduation from college for this age group. One community leader discussed the broader organization of society in America as having a negative impact on mental health: *"It's not just friendships, it's quality of relationships within communities…Like in older systems, you would have relationships with the aunties and the uncles and your neighbors, and all of that is missing."* Another community leader mentioned that young adults experience *"a loss of the safety net that MSA [Muslim Student Association] has offered a lot people."*

Both young adults and community leaders discussed the impacts of a poor work-life balance, with one young adult stating: *"The fact that our life as an 18- to 25-year-old is so robotic, like work, school, sleep, work, school, sleep...there's no time to give to yourself."* One community leader linked poor work-life balance to a general work culture in America: *"I think lifestyle, like things are so busy and hectic here. Everyone's kind of caught up in that, you know,*

pursuit of happiness kind of thing…Work-life balance."

Research Question 2: Top Mental Health Needs

To identify community stakeholders' perceptions of the top mental health needs for Muslim American young adults, results of the card sorting activity were analyzed. First, mental health problems that were categorized as "most important" to address for Muslim American young adults were examined to identify themes across the focus groups. Following this analysis, each group's rankings of the top three most important problems to address were investigated to identify different types of stakeholders' perceptions of priority targets for prevention and intervention efforts for Muslim American young adults.

Collective Perceptions of "Most Important" Mental Health Problems to Address

As shown in Table 3, all six focus groups agreed that three specific problems were among the "most important to address": depression / depressed mood, anxiety, and stress related to conflict with parents / family. Five of the six focus groups agreed on five additional problems being among the most important to address, including: suicide / suicidal feelings, general trauma, loneliness, stress related to identity conflict, and stress related to sexuality / dating / gender relations.

Stakeholders' Perceptions of Top Three Mental Health Problems to Address

As shown in Table 4, each focus group's rankings of the top three most important mental health problems to address for Muslim American young adults was examined. Card sorting results highlighted variability among focus groups' responses, with variability both within and across the different types of stakeholders. Results by each type of stakeholder are presented below.

Mental Health Professionals. Mental health professionals indicated that the top priority

problem to address for this population is either suicide / suicidal feelings or stress related to conflict with parents / family. Suicidality appeared to be identified as a priority due to the level of associated risk. For example, one mental health professional stated: *"Anything that would put a client at imminent risk, that's gonna be the most important to me. So, for me the suicidal feelings, self-harm [is most important]."* Another mental health professional highlighted the prevalence of suicidality and depression with the 18-to-25-year-old age range: *"I've seen it in my practice, and even when I still get phone calls or messages from different community leaders, and there is a lot of suicide, depression within that age range."*

Mental health professionals emphasized the prevalence of stress related to conflict with parents / family, with one mental health professional stating "*I'd say conflict with parents and family is every case that I have."* Mental health professionals also discussed family-related stress or conflict as being a root cause of a range of mental health problems, leading this issue to be a top priority for intervention. For example, one mental health professional shared:

> *I was going to mention the stress related to family, spouse, especially in that age group of 18 to 25 I think you mentioned. A lot of the clients that I work with have that, attached to that anxiety, attached to that depression is something connected to their family life. Also, part of it is, I think is the kind of exposure to some sort of, some level of trauma as a young first generation, or sorry, second generation Muslims growing up with first generation parents and just that dynamic that exists and kind of how it materializes in adulthood and the stress that comes with it.*

Both groups of mental health professionals identified depression or depressed mood as being in the top three problems to address. Mental health professionals discussed the importance of addressing depression given the prevalence of depression within the Muslim American

community. Mental health professionals also indicated that many other problems that Muslim American young adults experience, such as sleep problems or low self-esteem, are associated with depression or depressed mood. Related to depression, one group of mental health professionals ranked anxiety as one of the top three problems to address, with one mental health professional sharing *"I feel like depression and anxiety are hand in hand."*

Finally, one group of mental health professionals selected general trauma as one of the top three problems to address, with one mental health professional stating *"I think it's most important to address because it seems to be an underlying…it's a risk factor for like everything else."* Another mental health professional echoed this sentiment when describing the overlap of different types of trauma with other mental health problems: *"You can say that like depression, anxiety…It's usually happening in context with either psychosocial stressors or any kind of trauma. This could be bullying, this could be financial problems in the family, so it could be…we could say trauma actually, would be the second [most important problem to address]."*

Community Leaders. Community leaders indicated that the top priority problem to address for Muslim American young adults is either stress related to conflict with parents / family or stress related to school / work. Both groups of community leaders agreed that stress related to conflict with parents / family was in the top three problems to address, with one group ranking it as the most important problem to address and the other group ranking it as the second most important problem. Multiple community leaders described family conflict as being *"a root source of so many other problems."* For example, one community leader shared:

> *I feel like conflict with parents, if it's not addressed can relate to like "I need to find a job quickly cuz maybe I'm getting pressured from my parents" or "I need to move out, or I need to get married"…or "I need to get away from my parents." And what ends up*

happening is that the conflict with parents, even just, you know, it's not even just like I have a dispute…It's like my life and how I want to live it is so different, and I can't even share that with my parents, and so there's always going to be a conflict, always going to be a difference.

Another community leader also shared how unresolved family conflict can build over time and lead to additional issues throughout one's life:

I would say conflict with parents, 100 percent as the number one cuz I also don't think it's an age thing. I think if it hasn't been addressed, you can carry that on, just even from the way you speak to your parents, and how they speak, and how you take it...And then that could also lead to the stress related to school because you don't have the safe space at home or vice versa however.

In regard to stress related to school / work, one community leader emphasized the pressures associated with college-aged young adults: *"If you're in undergrad, you're worried about undergrad, then you're worried about grad school, then you're worried about marriage, then you're worried about kids."*

One group of community leaders ranked depression / depressed mood as the second most important problem to address, with discussion of the prevalence of depression as the primary reason this problem was selected. This same group of community leaders ranked anxiety as the third most important problem to address, with one community leader stating, *"I definitely see anxiety about your future, getting married, trying to figure out your life, seeing everyone excel on social media, and you're not excelling or something. I definitely see that as a concern."*

Finally, one group of community leaders listed stress related to sexuality / dating / gender relations as the third most important problem to address, with one community member sharing,

"I feel like in this age group, the one thing everyone is really thinking about is finding a partner, being with a partner, keeping a partner. It's a heavy preoccupation in this age."

Young Adults. Young adults indicated that the top priority problem to address for Muslim American young adults is either depression / depressed mood or lack of sense of belonging. Depression was highly prioritized by one group of young adults due to both the prevalence of depression within the Muslim American community as well as the current lack of discussion or awareness around depression. For example, one young adult stated:

> *I think depression is one of the biggest things. Just because of the, I know any ethnicity can be Muslim, but because of the culture that the majority of the Muslims are, depression is just not talked about enough, and I know a lot of my friends have struggled with talking to their parents about it. And it's been a really big struggle for them, like academically and personally.*

The second group of young adults ranked lack of sense of belonging as the highest priority problem to address due to lack of belonging appearing in multiple aspects of young adults' lives, as well as the pervasive impacts of living *"a double life"* when Muslim American young adults don't feel they belong in their daily environments. For example, one young adult shared:

> *I feel like who I am at home is a whole different person, and then when I go to other friends who are not Muslim, or even with my Muslim friends, I feel like a whole other person. I think it's been like that my entire life.*

One group of young adults ranked stress related to identity conflict as the second most important problem to address and stress related to conflict with parents / family as the third most important problem to address. In regard to identity conflict, young adults discussed identity

conflict as a *"root"* of other issues that *"encompasses a lot of things."* For example, one young adult stated, *"I think reflecting back on my life, the life of people who are very close to me, I really think that identity conflict really does, you know, it sets the path for a whole bunch of these [issues]."* In regard to conflict with parents / family, one young adult shared, "*I think that's one of the most important things, especially for that age group. It is so big in the Muslim community."*

The second group of young adults ranked domestic violence / intimate partner violence as the second most important problem to address, and anxiety as the third most important problem to address. When discussing domestic violence, young adults highlighted that it is *"taboo within our culture"* and *"not only like a taboo, but just so common,"* emphasizing both the current lack of discussion about domestic violence and the prevalence of the issue within the Muslim American community. Young adults also discussed the urgency of addressing domestic violence compared with issues that may appear to be less severe. For example, one young adult stated, *"Who cares about anxiety when the person's like domestically abused every day? Like sorry I'm just going to put away my anxiety when there's a fight or flight response happening right in front of me."* Lastly, young adults shared that many significant issues within the Muslim American community, such as *"immigrant guilt,"* lead to anxiety, and that anxiety is not currently addressed within the community, making it a high priority target to address. For example, one young adult shared: *"Within our community, if you're already anxious, our community doesn't help the anxious person. There's so much you have to check off to be a 'good' person within our community."*

Research Question 3: Barriers to Mental Health Services

The code taxonomy resulting from responses to the question, "What are the barriers for

Muslim American young adults to get mental health services?" is illustrated in Table 5, along with code definitions and frequency of code emergence by stakeholder type. Mental health professionals and young adults reported the greatest number of barriers, with 23 barriers discussed by each. Community leaders discussed 17 barriers across the two focus groups. Barriers were categorized into 11 domains or themes, described below from most common to least common barriers.

Therapist-Related Barriers

All three types of stakeholders identified barriers to service-seeking related to therapist characteristics, perceptions of therapists, or beliefs about the therapeutic relationship. The most common barrier, identified by all focus groups, was a cultural mismatch between therapists and clients, including lack of representation of certain ethnic, religious, or cultural groups among mental health professionals. Specifically, the *cultural mismatch* code largely co-occurred with the *lack of understanding from therapist* code, with many participants reporting that Muslim American young adults would likely feel misunderstood by therapists of a different religious or cultural background. One young adult discussed how it is *"really hard to talk to someone that doesn't understand your cultural and religious background cuz that has a lot to play with our mental health,"* while another young adult shared, *"It is such a daunting process just to try to explain my culture, and so it feels so unproductive, and knowing that that's probably what I'm going to be facing, it's a barrier to maybe finding a therapist."* One community leader highlighted how overwhelming the help-seeking process is due to cultural mismatch or lack of representation:

> *A lot of people, I think it's very overwhelming where they will try with one mental health professional and then it's like, it doesn't work out, or the [mental health professional]*

oftentimes if they're not Muslim, they don't understand them. They don't understand like, not just culturally but religiously. If [young adults] don't have access to Muslim mental health resources or know of them, then they'll go to secular ones, and it's hard for them to build a relationship with secular mental health professionals who may not fully understand them.

Mental health professionals discussed an additional frustration with the difficulty of raising awareness of, and exposure to, Muslim mental health professionals available within the Muslim American community:

From the provider's side of it, as a provider, there isn't, for me at least, I don't see it as much, there isn't an exposure, there isn't an exposure of Muslim practitioners. There are certain websites that do have a list of Muslim practitioners, but the feedback I get from the community is it's difficult to get a Muslim practitioner, and we'd rather have a Muslim practitioner so on both sides, it's…from the youth, it might be the resource, not being able to pay and also finding a Muslim practitioner, and from the provider side, like myself, the frustration is there isn't enough exposure.

While cultural mismatch was the most common barrier, on the other hand, cultural match between therapists and clients, with therapists and clients sharing similar backgrounds, was also a commonly identified barrier by mental health professionals, community leaders, and young adults. One reason cultural match was identified as a barrier is the lack of trust that may exist when one seeks therapeutic services from an individual belonging to one's community, based in a fear of their personal matters not being kept confidential. For example, one community leader shared that young adults may think, *"I don't know if I can trust Muslim mental health professionals. Are they just going to be the gossiping aunty but with a title and a degree?"* One

young adult discussed the pitfalls of both cultural match and cultural mismatch, highlighting how Muslim American young adults can often feel stuck in the help-seeking process:

> *Going to Muslim therapists sometimes isn't the solution too. They're polar opposites. Like you go to Muslim therapists, and they make you feel like you're just a bad Muslim, and you just need to run. And then the other one is like, they don't understand anything. The entire time, you're just explaining your life to them. And you're like, "It's effed up that I have to do this. I know it's screwed that I'm a girl, and I have to go through this. Like get over that already and talk to me about my problems." You know what I mean? But at the same time, the person who already knows about my problems isn't helping either.*

One mental health professional also discussed *"self-imposed limitations"* that Muslim American young adults experience based in the *"idea that only a Muslim will understand me or can help me."* This same participant emphasized that *"a good therapist is a good therapist. You can have a Muslim therapist who will do more harm than good. You can have someone who doesn't identify as Muslim who can be super helpful."*

Furthermore, community leaders and young adults raised concerns about individuals' fear that therapists will have negative perceptions of them or their community. This barrier was discussed in regard to both Muslim and non-Muslim therapists. With Muslim therapists, participants discussed individuals' fears that they may be viewed as a *"bad Muslim"* or *"maybe you might be judged for feeling a certain way, and you say something…If the counselor…is someone who's professional, [they] wouldn't, but I think that fear of judgement when seeking help [is a barrier]."* For non-Muslim therapists, participants discussed fears rooted in Islamophobia and assumptions being made about the treatment of women especially.

Stigma

Mental health professionals, community leaders, and young adults reported multiple levels of stigma as a barrier to service-seeking, including societal stigma, community stigma, family stigma, and self-stigma. Family stigma appeared to be the most common type of stigma reported by participants, with all three types of stakeholders reporting family stigma as a barrier. One mental health provider stated, *"I see stigma because even those who come to seek help, most of the time they do, not all the time but majority of time, they do this in secrecy. Like they do not let their family know."* One young adult provided further insight into family stigma:

> *I think another thing is like this pressure to be the perfect student, the perfect Muslim, the perfect son or daughter, like you don't even want to bring [mental health] up sometimes, especially if your family is not as pro-mental health as others. Like it's just hard to bring up the conversation and break that wall that "Maybe I'm not okay, and I need to get help."*

Community stigma, including stigma within individuals' religious or cultural community, was also a common barrier, discussed by both mental health professionals and young adults. One mental health professional described the taboo of therapy in the Muslim community:

> *I think like in non-Muslim communities, I hear a lot of people are proud of therapy, like "Oh yeah I saw my therapist." They promote it and they're proud, and with the Muslim community, it's kind of like "Oh don't tell anybody you're in therapy" kind of thing. I feel like if more people were like "Oh yeah it's cool I'm in therapy," then it being more accepted would help.*

One young adult discussed stigma she had experienced in the Arab Muslim community specifically, related to stigmatizing and derogatory language used to label different mental health

conditions or people with mental illnesses:

> *They just say so many terms that are so bad, and they're normalizing it basically. And the normalization of these words makes me just afraid to label myself in a certain way. It's like "Do I really want them to figure out that I'm actually this person that they always keep using in a curse word, as a curse word?"*

Mental health professionals and young adults also reported self-stigma as a barrier to service-seeking, including internalized stigma, judgment, or negative beliefs about mental health or service-seeking. Self-stigma was closely associated with internalized negative religious beliefs about mental health, as well as internalized stigma that originated from family beliefs or expectations. One young adult shared that this barrier is *"psychological...kind of like if you grew up thinking that 'Oh like mental health is nothing,' and you kind of push it to the side, you yourself may think like 'Oh why would I go to a therapist?'"*

Lastly, young adult participants briefly discussed larger societal stigma, noting a hesitation that young adults may experience in seeking therapy based on *"how society has kind of portrayed it."*

Lack of Accessibility

Barriers related to lack of accessibility of mental health services were discussed by all types of stakeholders, with the most common barriers including financial barriers and difficulties navigating the mental health infrastructure and insurance system. For the 18-to-25-year-old age group, participants discussed the limitations and fears that young adults face when being under their parents' insurance, linked to family stigma and a desire for secrecy. For example, one mental health professional shared, *"For youth I think, it's resources. I mean, if they have insurance that's fine, but most of them do not have insurance or they are...they may be under*

their parent's insurance." Additionally, young adults may not be able to afford therapy on their own, and mental health professionals highlighted the variability in financially accessible mental health services: *"I know for most practitioners and private practices, they may or may not have a sliding fee, so it depends on who you contact."*

Related to financial barriers, navigating the insurance system and broader mental health infrastructure to be linked to services emerged as another significant barrier. One young adult shared, *"We barely have time to even think about ourselves sometimes, and making an appointment, going to go through all the struggles of calling to see is your insurance covered? If it's not, how much is it? Who do I go to? I feel like all of the logistics behind it is tough."* Another young adult echoed this sentiment, stating, *"I also think if you haven't sought out mental health care, I don't...it's like a hard process as well, like finding a therapist is a super involved process then on top of....or finding a therapist for you, so on top of all the barriers, it's like once you actually are at the point of looking for mental health care, it's not exactly easy all the time."* Similarly, one community leader described finding *"a fit when it comes to therapy"* as being *"like you're going shopping and you have to go meet with one person, 'oh this didn't click,' you meet with somebody else, and maybe [you end up] feeling helpless."*

Other accessibility barriers raised specifically by young adults included schedule / time constraints as well as geographic location, such that one may *"have to drive like an hour somewhere in traffic and all of that reduces the chances of getting the help."* Young adults also raised concerns about the lack of Muslim representation among providers based on geographic location. For example, one participant stated, *"I think as you get further and further away from cities, like for example, the Inland Empire has way fewer Muslim woman mental health providers than if you're going towards LA [Los Angeles], SD [San Diego], OC [Orange County], like*

anywhere else. So location is a barrier as well."

Confidentiality / Trust

All types of stakeholders discussed barriers to service-seeking related to confidentiality, a lack of trust, or *"a lack of confidence in the system."* Specifically, most groups discussed a fear that individuals may hold of others finding out if they seek mental health services, and a resulting desire for secrecy or privacy. This fear appeared especially relevant for young adults around their family, with one young adult reporting anxiety about *"keeping your life private from your parents"* and one community leader described secrecy that young adults experience around their families:

> *If they don't have the support from home, they feel like they're taking the step in the unknown on their own, like they're living…almost like living in secret. Like sometimes I get chaplaincy calls from the community, and the ladies or the young men would be in their closet talking, "I don't want my mom to know I'm talking to you," so I think there's still that there.*

Another theme that emerged related to confidentiality and lack of trust was young adults' concerns with seeking help from a Muslim mental health professional, with overlap of confidentiality / trust codes and therapist cultural match codes. For example, one mental health professional shared that many Muslim American young adults do not have *"understanding [of] the full confidentiality that the profession has,"* resulting in *"having that fear of someone knowing that either they're seeking therapy or their issues kind of going into the [Muslim] community."*

Knowledge of Services

Mental health professionals, community leaders, and young adults all discussed

limitations in young adults' knowledge of mental health services as a barrier to service-seeking. Mental health professionals and community leaders both described young adults' expectations of therapy and lack of education about therapy as barriers to service-seeking. Specifically, numerous participants discussed individuals' desire for *"a quick fix"* or *"instant gratification,"* linked to unrealistic expectations about the therapy process and time required to gain desired outcomes. One community leader shared that, as a result of these expectations, *"impatience makes them give up a bit too early where they start canceling. 'Oh I went to therapy, and it didn't work. Therapy doesn't work,' so they become very general about their opinion about therapy."* One mental health professional mentioned:

> *They're like, "Well how long is this going to take?" and if you kind of tell them it's a process and everybody goes at their own pace, it's just...I feel like people fall off, like in therapy, there's, you kind of get worse before you get better when you lay all the problems out there, and…they fall off before they get to the getting better part.*

In regard to lack of education about therapy, participants highlighted the need for psychoeducation for young adults. One mental health professional described a *"lack of awareness of what [a symptom] is and how help can make difference."* A community leader underscored the need for psychoeducation especially in marginalized communities that may have more limited resources:

> *I also think there's a lack of education and knowledge because I think that I've been stuck thinking about folks that are privileged enough to have at least some kind of access to the internet…or going to school, and the thing is that we do fail to understand sometimes there are communities that are really underprivileged and marginalized to the point where they actually don't know the issues that they're facing or suffering are actual*

things they could seek help for. So I would [say]…definitely a lack of education on these topics in the community.

Finally, mental health professionals and young adults endorsed individuals' lack of exposure to therapy as a barrier to service-seeking. For example, one young adult mentioned, *"If you've never, you know, looked for mental health services, or if no one in your life has ever done that, I think that it can also be an overwhelming process for some people."* One mental health professional further described the importance of exposure to therapy:

I think there's too a lack of exposure to knowing people who've been in therapy, whereas people who are part of other social groups or other religious groups almost always know somebody who's been in therapy, who's told them what it's like...but like the young Muslims coming are like, "I don't know anyone who's been in therapy, I don't...I thought I'd give it a try, I took a psych class in college and thought maybe this would help."

Personal Attitudes

Each type of stakeholder discussed particular aspects of individuals' personal attitudes or beliefs, aside from stigma, as being a significant barrier to mental health service-seeking. Both community leader groups highlighted that individuals' previous negative experiences with therapy, whether they be their own personal experiences or learning about others' negative experiences, serve as a barrier to treatment. Community leaders also discussed individuals' lack of readiness to face their mental health problems as a barrier: *"It's just taking the first step sometimes is hard. Cuz you have to admit that there's something wrong or something needs to be looked at."* Another community leader shared that a barrier is *"acknowledging that they're ready to address to the problem. I know a lot of folks are not ready to make that plunge because, you know, they think that all of a sudden there's this, you go to seek counseling and then they're*

going to give you this thing that you must do."

Both mental health professionals and young adults endorsed notions of self-reliance as a barrier, such that many young adults feel they can or should deal with their problems independently, with thoughts such as *"I'll just get through this. It's just something I have to deal with on my own."* Additionally, mental health professionals and young adults reported that individuals are not always willing to spend money on mental health services, even in cases when financial means are not a limitation. For example, one mental health professional said:

> *Not financial constraints, but more so the willingness to spend money on services cuz definitely those, the Muslim community I'm referring to, it sounds like most of us are on the same boat, I think they're financially pretty stable. Their parents are at a good job and have given them a good life, and they're pursuing higher education. I think it's more of just the, desire, willingness to spend.*

Lastly, mental health professionals and community leaders discussed religious-based beliefs about mental health, or about people with mental health problems, as a barrier to service-seeking. Specifically, participants shared that individuals may hold the belief that seeking treatment represents deficits in their own spirituality or connection with God. For example, one mental health professional commented, *"I think too sometimes religiosity can be a barrier. Because there's this idea that 'Well I must not have enough* ***iman*** *[Translation: faith] if I am needing therapy.'"* Another mental health professional stated that some young adults believe if they are experiencing mental health difficulties, *"'maybe it's the* ***shaytan's*** *[Translation: Devil's; evil spirit's] influences. I just need to pray more and fast more,' and so I think sometimes that fear that needing help will somehow be representative of their religious and spiritual connection in a negative way can be a barrier."* A young adult also shared that these

beliefs may reinforced by, or may stem from, family members:

> *Someone mentioned weaponizing religion, and I think in this case, this happens a lot in the family where they say, "Oh you're just, you're showing lack of… **tawakkul** [Translation: trust and reliance in God's plan]." And it's like, yeah, the lack of, "Oh, you're kind of weak in your **deen** [Translation: religion], so just go pray."*

Perceptions of Problem and Need for Help

Both mental health professional and young adult participants shared that individuals' perceptions of the scope / severity of their problem or their level of need for help are barriers to service-seeking. These perceptions were found to function in two directions, with young adults either viewing their problems as too small to warrant mental health services or as too large to allow services to be effective or helpful. In regard to viewing problems as too small, one young adult stated, *"I minimize my feelings a lot too, all the time, like why should I seek help when literally everyone in this house is depressed or unhappy?"* while another young adult shared that sometimes people ask *"Why would I go to a therapist? I'm not really mentally ill or anything."*

On the other hand, participants shared that some individuals feel too overwhelmed and hopeless about their problems given the significance or severity of their struggles. For example, one mental health professional mentioned, *"[For] other people, it's...the problems are so huge, and they're intergenerational, and they're across the family structure, so sometimes there's not enough hope that therapy can actually do anything to help them."* One mental health professional effectively highlighted the two sides of these perceptions:

> *[People think] "I'm not bad enough, things aren't bad enough where I need therapy" or "Things are too bad, therapy's not going to help to even." In marital therapy, either some people come in right before they're signing the divorce papers, and they want you*

to fix their marriage, where it's like too much has happened…where if things were just slightly bad, that would be the most beneficial time to kind of start the healing process, but it's not "bad enough" yet.

Mental Health Problems

Both mental health professional and young adult participants indicated that Muslim American young adults' mental health difficulties or symptoms themselves, such as *"personal stress"* or *"depression, because of the very nature of depression"* interfere with help-seeking. Several young adult participants also discussed mental health difficulties contributing to individuals dismissing their own self-worth and, when considering therapy, asking questions such as *"Am I actually really worth all this effort?"*

Social Environment

Mental health professionals and young adults reported that certain aspects of individuals' social environments serve as barriers to service-seeking. These barriers were particularly related to young adults' family environments and lack of family support in seeking help, such as *"parents telling their kids nothing's wrong with them" and "stop[ping] their children from seeking professional help."* Young adult participants noted that families can have an especially significant impact on help-seeking when young adults are living at home with their parents or family.

Seeking Help from Other Sources

Mental health professionals shared that one barrier to mental health service-seeking for Muslim American young adults may be that young adults seek support, or prefer to seek support, from other sources. This barrier specifically emerged in association with stigma within the Muslim community. For example, one mental health provider shared:

Coming back to, at least you know with my experience, I think within the Muslim community, going to a mental health therapist was really frowned upon, and I think it was something where you don't…you deal with it within the family or the elders in the family, and then maybe if you have to go to a clergyman then you would go, you would seek advice from the clergymen.

COVID-Related Barriers

Given the timing of the focus groups in the context of the COVID-19 pandemic, unique barriers emerged related to difficulty accessing mental health services in a private or confidential manner. This theme emerged in one young adult focus group, with a young adult stating*, "Now that it's telehealth, not having the space [is a barrier]."*

Discussion

The current study utilized an exploratory qualitative design to gain insight into Muslim American young adults' mental health needs, determinants of mental health, and barriers to service-seeking. In an effort to identify the top mental health needs of Muslim American 18-to-25-year-olds, or the most important mental health problems to address for this population, a card-sorting activity revealed that all focus groups agreed on three problems to prioritize: depression / depressed mood, anxiety, and stress related to conflict with parents / family. While no large epidemiological studies have been done to objectively assess the prevalence of various mental health problems within the Muslim American community, these qualitative results offer guidance for further exploration of young Muslim Americans' mental health needs. One previous study found that, based on clinician reports in mental health or social service centers following 9/11, the prevalence of mood disorders for young Muslim Americans was 15% while the prevalence of anxiety disorders was 13%, supporting our findings that depression and anxiety are significant

issues among this population (Basit & Hamid, 2010). Stress related to conflict with parents or family may likely be related to intergenerational differences that exist between parents and their children in many immigrant communities, including many Muslim American communities (e.g., Ahmed & Ezzeddine, 2009), contributing to poor mental health outcomes (e.g., Lui, 2015). Additional problems that were identified as top priorities for intervention in the vast majority of focus groups included: suicide / suicidal feelings, general trauma, loneliness, stress related to identity conflict, and stress related to sexuality / dating / gender relations. Notably, while much of the extant literature on Muslim American mental health has focused on intergroup experiences such as discrimination or Islamophobia, in the current study, stress related to racism, discrimination, or Islamophobia was not identified as a top mental health priority across focus groups, and there was little discussion of these intergroup issues in the focus groups relative to other problems, regardless of stakeholder type. Rather, individual and intragroup problems were selected as the most important problems to address for Muslim American young adults and received the most in-depth discussion.

Furthermore, we examined community stakeholders' perceptions of the top determinants of mental health for Muslim American young adults. There was significant variability in responses across focus groups, but themes that emerged across groups spanned all socio-ecological levels (Bronfenbrenner, 1989). When asked about the top five most important or significant determinants of mental health for Muslim American young adults, stakeholders identified structural determinants such as the sociopolitical climate or structural inequities, as well as proximal determinants at the cultural (i.e., cultural expectations), familial (i.e., family conflict), and individual (i.e., identity conflict, socioeconomic or financial issues, lack of awareness about mental health) levels (Viner et al., 2012). Unexpectedly, while mental health

professionals and community leaders identified the sociopolitical climate, including discrimination, racism, and Islamophobia, as a significant determinant of mental health, no young adults reported this as a determinant. Past research on Muslim American mental health has emphasized the negative impact of discrimination, racism, and Islamophobia on Muslims' mental health, but little research has examined differences in perceptions of discrimination and its impact (Ali & Awaad, 2019; Samari et al., 2018). For Muslim American young adults specifically, intragroup factors (e.g., family stress, cultural expectations) may feel more salient due to holding collectivistic values (Daneshpour, 1998) or the proximity of the stress in their daily lives (Bronfenbrenner & Morris, 1998). Many Muslim American young adults may self-segregate into same-ethnic or same-faith groups, reflecting homophily in their social networks (Ghaffar-Kucher, 2012; Shammas, 2009). This self-segregation may lead intragroup, rather than intergroup, issues to feel more salient for young adults given that they may be primarily surrounded by other members of their in-group. Another explanation is that Muslim American young adults may be resilient and better resourced to manage external sociopolitical stressors, leading them to emphasize intragroup rather than intergroup determinants of mental health (Tahseen et al., 2018). This finding is consistent with past research in the Latinx community highlighting the significance of intragroup determinants (e.g., intragroup marginalization or separation) over and above intergroup determinants (e.g., ethnic discrimination) for mental health even during times of hostile national climate (Mata-Greve & Torres, 2019). Results underscore the importance of utilizing a socio-ecological framework to identify root causes of mental health problems in various ecological contexts, in order to formulate an effective and comprehensive approach to prevention and intervention efforts for mental health.

While past research has highlighted that Muslim Americans are often underserved in

professional mental health settings (Al-Mateen & Afzal, 2004), there has been limited investigation into the barriers that Muslim American young adults may specifically experience. In the current study, the greatest barrier identified by community stakeholders was cultural mismatch between therapists and clients, or lack of representation of therapists belonging to the same religious or cultural group as clients. Strongly related to this barrier was discussion of mistrust of therapists (e.g., believing therapists will not understand them, fear of therapists having negative perceptions of them), which has been previously highlighted in Muslim mental health research (Al-Mateen & Afzal, 2004; Daneshpour, 1998). Notably, cultural match, or therapists and client sharing a similar cultural background, was also identified as a significant barrier to service-seeking for Muslim American young adults, based in the notion that young adults may have a lack of trust or may feel judged if they seek support from a Muslim therapist. This finding underscores the importance of examining "cognitive match" between therapists and clients rather than simply focusing on racial/ethnic match, as "cognitive match" may explain why some Muslim American young adults prefer to seek help from Muslim therapists while others prefer to seek help from non-Muslim therapists (Zane et al., 2005). For example, Muslim American young adults who feel their values and worldviews align more with dominant Muslim beliefs may prefer to seek help from a Muslim therapist, while young adults who are more acculturated and may deviate from dominant Muslim beliefs may prefer to seek help from a non-Muslim therapist.

In addition to barriers related to culturally-influenced beliefs, stakeholders identified various structural barriers, including limited knowledge of mental health services and accessibility barriers such as financial constraints or lack of insurance, difficulty navigating mental health infrastructure, and time constraints, consistent with the extant literature (Owens et

al., 2002). Our findings were also consistent with past research that has shown that young adults especially face barriers related to limited insight regarding mental health needs, negative emotions related to service-seeking, and mistrust of services (Munson et al., 2011). Participants in the current study highlighted Muslim American young adults' negative personal attitudes (e.g., negative previous experiences with mental health services, lack of readiness to face their problems), their perceptions of their mental health challenges and need for help (e.g., viewing their problems as too small or too large), and concerns about confidentiality or lack of trust. Muslim American young adults' beliefs about the etiology of mental health problems also emerged as a barrier, with a focus on religious-based beliefs (e.g., mental health difficulties are caused by lack of faith). Such beliefs were found to be somewhat related to young adults seeking help from other sources, such as Muslim chaplains on college campuses, which has been discussed in previous research on young adults' beliefs about etiology of mental illness and service-seeking (Yeh et al., 2014).

Finally, stakeholders identified significant barriers related to stigma, with family stigma being most common, followed by community stigma and self-stigma, and finally societal stigma. Notably, participants discussed overlap between mental health stigma and ethnocultural or religious conceptualizations of mental illness, consistent with prior research on such beliefs within the Muslim American community (e.g., Abu-Ras et al., 2008) and other communities (Abdullah & Brown, 2011). Past research also points to the prevalence of family mental health stigma within highly collectivistic or interdependent communities (e.g., Daneshpour, 1998), which may partially explain why family stigma was the most common stigma reported for Muslim American young adults, many of whom hold collectivistic values, especially within Muslim immigrant communities.

Limitations

It is important to acknowledge several limitations of this study. First, all participants were from Southern California, and almost all participants were of Arab or South Asian heritage, limiting the generalizability of findings. Thus, generalization to other ethnic groups and to Muslim Americans outside of Southern California should be made with caution. Results would likely vary across different geographic communities, as well as different racial / ethnic communities. Notably, participants highlighted that many of the themes discussed were especially relevant to immigrant Muslim communities, such as Arab and South Asian Muslim communities, and that results would likely differ with other Muslim communities, such as Black Muslim communities. Additionally, communities in different geographic regions experience different stressors, and the experiences of Muslim Americans in areas without a large Muslim American community, unlike Southern California, likely differ greatly. Furthermore, our findings regarding the significant salience of intragroup issues over intergroup issues should be interpreted with caution. Participants in the current study may be especially likely to have homophilous social networks, and thus highlight intragroup issues, given the recruitment strategies used (i.e., recruitment sources and organizations centering Muslim identity, leading to higher likelihood of recruitment of Muslim participants who are greatly involved in the Muslim community) and self-selection bias. Additionally, the sample size of this study, with only two focus groups per stakeholder type, limited the level of in-depth analysis that could be conducted to identify differences within and across stakeholder types. Another limitation is that, due to the nature of focus groups, all results represent the perspectives of community stakeholders and are not objective measures of mental health needs, determinants of mental health, and barriers to service-seeking. Nonetheless, stakeholders' perceptions offer valuable insight into the lived

experiences of communities. Lastly, due to the COVID-19 pandemic, focus groups were conducted online. As a result, focus group participants were limited in their ability to interact as authentically and openly with one another, and to build relationships with other participants and the PI.

Notwithstanding these limitations, this study has several strengths and addressed important questions about the mental health needs, determinants of mental health, and barriers to service-seeking for Muslim American young adults, building on the extant literature on Muslim American mental health. First, this study was one of the first of its kind to use focus group methodology to investigate community stakeholders' perceptions about mental health within the Muslim American community. The unique design of this study offered an opportunity for various stakeholders to engage with one another to have a community-based discussion about important issues in their community, providing insight that is unattainable through individual-based research methods such as surveys or individual interviews. This was also one of the first studies on Muslim American mental health to strategically involve different types of stakeholders, including Muslim mental health professionals, community leaders, and young adults.

Future Directions

In order to obtain greater confidence in results and to conduct a more in-depth analysis of nuances within and across different types of stakeholders, similar studies should be conducted with more groups and key informants. Inclusion of other community stakeholders, such as parents, would also offer additional important perspectives on mental health for Muslim American young adults. Future studies should also include stakeholders from diverse geographic settings and representing diverse racial / ethnic groups, in order to gain insight into differences

that Muslim American young adults experience across different communities. Additionally, mixed methods studies would offer invaluable information about the experiences of Muslim American young adults, combining the rich insight of qualitative research with objective measures of mental health needs and barriers to care across a larger sample.

The current study highlights critical targets for mental health prevention and intervention efforts, as well as for efforts to increase access and utilization of mental health services, for Muslim American young adults. Our results point to a need to address various mental health problems within the Muslim community, including depression, anxiety, suicide, and trauma, as well as to shed light on intragroup issues that may not be widely discussed. Community psychoeducation efforts may help to both raise awareness of these problems adults as well as de-stigmatize help-seeking (Al-Krenawi, 2016). Importantly, our findings highlight the need for a socio-ecological approach to mental health that addresses both intragroup and intergroup issues. Specifically, Muslim American young adults would benefit from efforts to integrate their various identities, address family conflict, decrease loneliness, address sexuality / dating / gender relations within the Muslim community, reduce discrimination / racism / Islamophobia, and decrease broader structural inequities tied to systemic oppression. For example, therapy efforts may focus on promoting bicultural identity integration (e.g., Bishop et al., 2019), facilitating identity exploration and development (e.g., Harris, 2009; Haslam et al., 2016), or supporting family communication and conflict resolution (e.g., Miller-Graff et al., 2016; Zhou et al., 2016). Given our findings, one model that may be promising for working with Muslim American young adults is the Multi-Phase Model of Psychotherapy, Social Justice and Human Rights (MPM), which focuses on the needs of immigrant communities and addresses social stigma and cultural mistrust (Bemak & Chung, 2008; Chung & Bemak, 2012). The MPM consists of five phases of

intervention, including (1) mental health education, (2) individual, group, and family interventions, (3) cultural empowerment, (4) integration of traditional and Western healing practices, and (5) addressing social justice and human rights issues. Specific application of the MPM for Muslim immigrants in the United States has been outlined by Amri and Bemak (2012).

Tables and Figures

Table 1

Sample Characteristics

Characteristic	**Full Sample** (N = 29) *n* (%) or *M (SD)*	**Mental Health Professionals** (n = 10) *n* (%) or *M (SD)*	**Community Leaders** (n = 9) *n* (%) or *M (SD)*	**Young Adults** (n = 10) *n* (%) or *M (SD)*
Age	31.33 (10.05)	39.50 (6.07)	34.67 (9.80)	21.80 (2.57)
Gender (Female)	22 (75.9%)	7 (70%)	6 (66.7%)	9 (90%)
Generational Status				
1st generation	7 (24.1%)	3 (30%)	2 (22.2%)	2 (20%)
2nd generation	21 (72.4%)	6 (60%)	7 (77.8%)	8 (80%)
3rd generation	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Beyond 3rd generation	1 (3.4%)	1 (10%)	0 (0%)	0 (0%)
Highest Level of Education				
Some college (no degree)	3 (10.3%)	0 (0%)	0 (0%)	3 (30%)
Associate's degree	1 (3.4%)	0 (0%)	0 (0%)	1 (10%)
Bachelor's degree	9 (31.0%)	0 (0%)	5 (55.6%)	4 (40%)
Master's degree	13 (44.8%)	8 (80%)	3 (33.3%)	2 (20%)
Professional degree	1 (3.4%)	0 (0%)	1 (11.1%)	0 (0%)
Doctoral degree	2 (6.9%)	2 (20%)	0 (0%)	0 (0%)
Race / Ethnicity				
Arab / Middle Eastern / Southwest Asian / North African	11 (37.9%)	3 (30%)	4 (44.4%)	4 (40%)
South Asian	15 (51.7%)	4 (40%)	5 (55.6%)	6 (60%)
White / Caucasian / European American	1 (3.4%)	1 (10%)	0 (0%)	0 (0%)
Black / African / African American / Afro-Caribbean	1 (3.4%)	1 (10%)	0 (0%)	0 (0%)

Multiracial	1 (3.4%)	1 (10%)	0 (0%)	0 (0%)

Table 2

Determinants of Mental Health for Muslim American Young Adults, Identified by Stakeholder Type

	Mental Health Professionals	Community Leaders	Young Adults
Sociopolitical Factors	• Structural inequities / systemic oppression** • Capitalism • Technology / social media • Lack of representation in mental health field	• Sociopolitical climate / violence* • Internet / social media** • Focus on "pursuit of happiness"	• Social media • Problems around the world • Robotic structure of life (e.g., work, school, sleep) • Expectations of society • Politics • Mismatch of society with faith • Lack of representation in mental health field • Disconnect between science and faith
Intergroup / Interpersonal Factors	• Discrimination, racism, and Islamophobia* • Bullying / cyberbullying	• Discrimination, racism, and Islamophobia • Quality of friendships	• Lack of support network* • People you surround yourself with
Cultural Factors	• Mental health stigma* • Cultural expectations** • Lack of cohesive culture / cultural mechanisms for healing** • Culture of fear tied to Hell • Meshing of culture and religion	• Cultural limitations / misunderstandings of mental health • Culturally not having language to talk about emotions	• Expectations of men and women*, ** • Denial of sources of mental health problems / Notion that lack of religion is source of mental health problems** • Cultural expectations • Ideas of masculinity / Challenge with men expressing emotions • Notions / expectations of respect
Intragroup Factors Within the Muslim Community	• Religious-based misconceptions of mental illness	• Quality of relationships within the community** • Loss of safety net from Muslim Student Association	• Other people in the Muslim community (e.g., judgment based on different practices) • Importance of the reputation of family • Taboos around talking about dating

			/ little support in the process
Family Factors	• Conflict with parents / family*, ** • Generational differences • Pressure from family regarding career and spouse • Generational differences in perceptions of mental health • Gender differences in parental expectations	• Intergenerational trauma* • Breakdown of family relationships** • Child abuse • Lack of modeling from parents	• Lack of space for open communication** • Family's narrow-mindedness • Family conflict • Notion that expressing opinions / critiques to parents is disrespectful • Parents' image of "Western" things
Individual Factors	• Identity conflict (navigating Muslim, cultural, and American identities)*, ** • Internal conflict of guilt and shame / lack of awareness of emotional experiences* • Lack of self-care • Sexual identity • Spiritual identity • Sense of being overwhelmed • Poverty • Lack of healthy primary relationships • Desire for perfectionism	• Identity conflict (navigating Muslim and American identities)*, ** • Genetics / human biology / natural occurrence of mental health difficulties* • Financial issues* • Socioeconomic status** • Lack of psychoeducation and awareness of mental health services • Lack of desire to address issues due to fear of outcomes • Fear of medicine • Fear of tarnishing reputation • Lifestyle / work-life balance • Spirituality / religious failures	• Identity conflict (navigating American and ethnic cultures)* • Money* • Lack of awareness of mental health problems* • Lack of access to mental health services** • Lacking connection with God / faith • Lack of time for self • Idea that medication is prohibited Islamically • Dating / finding a partner

Note. * represents determinant identified as top five most important by first focus group, ** represents determinant identified as top five most important by second focus group

Table 3

Mental Health Needs Collectively Identified as "Most Important to Address" Through Card Sorting Activity

All Groups in Agreement	5 of 6 Groups in Agreement
• Depression / Depressed Mood • Anxiety • Stress Related to Conflict with Parents / Family	• Suicide / Suicidal Feelings • Trauma (General) • Loneliness • Stress Related to Identity Conflict • Stress Related to Sexuality / Dating / Gender Relations

Table 4

Top 3 Mental Health Needs to Address, Identified by Each Group Through Card Sorting Activity

Problem Priority	**Mental Health Professionals** (Group 1)	**Mental Health Professionals** (Group 2)	**Community Leaders** (Group 1)	**Community Leaders** (Group 2)	**Young Adults** (Group 1)	**Young Adults** (Group 2)
#1	Suicide / Suicidal Feelings	Stress Related to Conflict with Parents / Family	Stress Related to School / Work	Stress Related to Conflict with Parents / Family	Depression / Depressed Mood	Lack of Sense of Belonging
#2	Trauma (General)	Depression / Depressed Mood	Stress Related to Conflict with Parents / Family	Depression / Depressed Mood	Stress Related to Identity Conflict	Domestic Violence / Intimate Partner Violence
#3	Depression / Depressed Mood	Anxiety	Stress Related to Sexuality / Dating / Gender Relations	Anxiety	Stress Related to Conflict with Parents / Family	Anxiety

Table 5

Barriers to Service-Seeking Code Taxonomy, Definitions, and Occurrence by Stakeholder Type

Barrier Codes	Definition	Mental Health Professionals	Community Leaders	Young Adults
Confidentiality / trust	Concerns related to confidentiality or lack of trust		X (1)	
Fear of others finding out / desire for privacy	Fear of others finding out, or a desire for privacy / secrecy	X (1)	X (2)	X (1)
COVID-related barriers	The COVID-19 pandemic and consequent issues			
Lack of private space	A lack of private space due to telehealth during the COVID-19 pandemic			X (1)
Knowledge of services	The amount or type of knowledge an individual holds about mental health services			
Expectations of therapy	Individuals' expectations of therapy (e.g., false or inaccurate expectations of therapy, or therapy not meeting participants' expectations)	X (1)	X (2)	
Lack of education about therapy	Individuals' lack of education about therapy (e.g., lack of education about the purpose of therapy, therapy options, or the therapy process)	X (1)	X (1)	
Lack of exposure to therapy	Individuals' lack of exposure to therapy (e.g., individuals not having previous experiences with therapy, not knowing others in therapy, or not seeing therapy in the media)	X (1)		X (1)
Lack of accessibility	General accessibility issues	X (1)		
Finances / lack of insurance	Financial constraints or a lack of, or limited, insurance (e.g., young adults being unable to access parents' insurance)	X (1)	X (2)	X (2)
Geographic location	Concerns related to individuals' geographic location (e.g., limited availability of mental health services in particular locations or types of locations)			X (2)
Navigating mental health infrastructure and insurance	Difficulties navigating mental health infrastructure and the insurance system (e.g., finding a therapist or finding appropriate help)	X (1)	X (1)	X (2)
Schedule and time constraints	Time conflicts			X (1)

Lack of transportation	Transportation-related issues			
Mental health problems	Individuals' mental health struggles (e.g., anxiety or depression symptoms interfering with individuals' ability to seek help)	X (1)		X (2)
Perceptions of problem and need for help	Individuals' perceptions of the scope of their problem, or their perceived level of need for help			X (1)
Problem too small	Individuals believing their problem is not big enough to warrant mental health services, or that mental health services aren't needed or prioritized	X (1)		X (1)
Problem too large	Individuals believing their problem is too big or impactful for mental health services to be effective or helpful	X (1)		
Personal attitudes	Individuals' personal attitudes or beliefs (not related to stigma)			
Negative previous experiences	Individuals' previous negative experiences with therapy (e.g., individuals' own experiences or learning about others' negative experiences)		X (2)	
Readiness to face problems	Individuals' lack of readiness to face their mental health problems (e.g., fear of acknowledging their problems and dealing with the implications of discussing their problems)		X (2)	
Religious beliefs about mental health	Religious-based beliefs about the meaning or sources of mental health problems, or about people with mental health problems	X (1)	X (1)	
Self-reliance	Individuals' beliefs that they can / should deal with problems on their own	X (1)		X (1)
Willingness to spend money	Individuals' unwillingness to spend money on services (e.g., lack of willingness to financially prioritize mental health services)	X (1)		X (1)
Seeking help from other sources	Seeking help, or a preference to seek help, from other sources (e.g., family, friends, God)	X (1)		
Social environment	Aspects of individuals' social environments			
Family-related barriers	Individuals' lack of support from their families (not including stigma; e.g., family dynamics and other issues with family members)		X (1)	X (1)
Living at home	Living at home with parents / family			X (1)
Stigma	General stigma (i.e., negative beliefs or judgment related to mental health or service-seeking)	X (1)		

	Societal stigma	Stigma, judgment, or negative beliefs about mental health or service-seeking within society			X (1)
	Community stigma	Stigma, judgment, or negative beliefs about mental health or service-seeking within their community, including a religious or ethnic community	X (2)		X (1)
	Family stigma	Stigma, judgment, or negative beliefs about mental health or service-seeking within one's family	X (1)	X (1)	X (2)
	Self-stigma	Internalized stigma, judgment, or negative beliefs about mental health or service-seeking within an individual	X (1)		X (2)
Therapist-related barriers		Concerns or issues related to therapist characteristics, perceptions of therapists, or beliefs about the therapeutic relationship	X (1)	X (1)	
	Cultural match (similar background)	Therapists sharing similar backgrounds (e.g., ethnic, religious) with clients	X (1)	X (1)	X (1)
	Cultural mismatch / lack of representation	Therapists having different backgrounds (e.g., ethnic, religious) with clients or lack of representation of certain ethnic, religious, or cultural groups among mental health professionals	X (2)	X (2)	X (2)
	Gender	Therapists' gender identity			X (1)
	Fear of therapist having negative perceptions	Individuals' fear that therapists will judge or shame them based on what is shared during therapy sessions (e.g., fear of therapists forming negative perceptions about an individual or community)		X (1)	X (1)
	Lack of understanding from therapist	Individuals' fear or concern that therapists will not relate to or understand their experiences, culturally or individually (e.g., discomfort or concern related to having to explain oneself or one's background)	X (1)	X (2)	X (2)
	Restrictions placed on therapists	Restrictions placed on therapists in their professional role (e.g., professional expectations or requirements of mental health providers)		X (1)	
Other		Other barrier that is not reflected in code list	X (1)		

Note. Number in parentheses under each stakeholder type represents number of focus groups that discussed barrier.

Appendix A: Focus Group Guide

Pre: Review consent form

A. Overview of focus group

Thank you all for taking the time to join us to talk about mental health in the Muslim American community. My name is Dana Saifan, and assisting me is Nimrat Brar. I am a doctoral student in clinical psychology at UCLA, and Nimrat is an undergraduate student at UCLA who will be assisting me today. As part of my dissertation study, I am conducting a series of focus groups with different types of community stakeholders, including today's focus group.

You were invited to participate in today's discussion because of your role in the Muslim American community. Today's focus group will focus on discussing perceptions of the underlying causes of mental health and factors that influence mental health. We will also be discussing what you think are the biggest mental health problems facing Muslim American young adults. Lastly, we will hear your thoughts on what you think may get in the way of young Muslim Americans seeking mental health help, or what may help young Muslim Americans seek mental health help.

As part of the study, I will need to video- and audio-record this focus group session and will take notes throughout so that I don't miss anything you say. These recordings will not be shared with anyone outside the research team and will be deleted after the recordings are transcribed.

All participants will be asked to keep what is said during the focus group between the participants only. However, complete confidentiality cannot be guaranteed. We may share important information that we learn through the study through reports and presentations, but your name will not be associated with any of your responses. To help protect your privacy and confidentiality, I advise you each to use a pseudonym instead of your real name.

Before we get started, I think it'll be helpful for us to set a community agreement.

1. The most important principle is that you help keep this a safe space by keeping what is said during the focus group confidential. Please do not discuss what is said in the focus group with others, even other participants in the group.
2. Only one person should speak at a time. There may be a temptation to jump in when someone is talking, but please wait until they have finished. This can be harder to do on Zoom, so I will help moderate if multiple people start talking at once.
3. I'd love to hear from everyone equally today, so let's use the step up and step back rule. Step up to speak if you haven't shared much, and please step back if you feel that you've spoken a lot.
4. At any point, you do not have to speak if you do not want to.
5. There are no right or wrong answers, but rather differing points of view. Please feel free to share your point of view even if it differs from what others have said.
6. Please talk to each other throughout today's discussion, rather than just directing answers to me. I will just be here to facilitate the discussion, rather than give my own thoughts or opinions.

Does anyone have any questions before we get started? Is it okay if I start the recording?

B. Introductions

Let's go ahead and get started with some introductions. Please tell us the name you'd like to go by today (remember you don't need to state your real name), your profession (*for young adults who are students:* ask about year and major in school), what part of Southern California you are from, and say a little bit about one activity that you enjoy doing in your free time.

C. Mental Health Needs and Priorities

Let's get started with talking about the mental health needs of Muslim American young adults, ages 18 to 25.

1. *Conduct "card-sort" ranking activity of top mental health problems (using Qualtrics survey; as participants discuss where to sort each problem, PI will navigate Qualtrics while sharing screen)*
    a. **Instructions**: Here is a list of different problems that Muslim American young adults (ages 18 to 25) may face. You'll need to work together to determine how important you think it is for each problem to be addressed within the Muslim American community. While thinking about this, you might consider how common you think the problem is among Muslim American young adults, how much of an impact you think the problem has, or how able young adults are to talk about and deal with these problems currently.

    In one box, place problems that Muslim American young adults may experience that you think are the most important to address. In another box, place problems that are least important to address, and in the third box, place problems that are in the middle in terms of importance of being addressed. You can add in any problems you think may be missing as well. As you discuss and decide where each problem should go, I will drag and drop them into the box you select. We are doing this as a group activity, and it is okay of you don't all agree at first. The most important thing is that we capture the group conversation about the sorting.

    Follow-up instructions:
    - May be easier to start with most important and least important (easily identifiable ones), then go in order.
    - Rank issues *relative* to other issues on list (e.g., putting something in least important doesn't mean it's not important)
    - Don't have your mic muted during this activity

    Mental Health Problems for Card-Sort:
    - Anxiety
    - Depression / depressed mood
    - Anger
    - Aggression / violence

- Alcohol use
- Marijuana use
- Nicotine use (e.g., cigarettes, hookah, vape)
- Other drug use (non-alcohol or marijuana)
- Body image issues / eating problems
- Suicide / suicidal feelings
- Self-harm (e.g., cutting)
- Trauma (in general)
- Child abuse
- Sexual abuse / violence
- Domestic violence / intimate partner violence
- Exposure to war / torture
- Panic attacks
- Sleep problems
- Paranoia
- Seeing, hearing, or believing things that aren't real (e.g., Schizophrenia)
- Bullying / cyberbullying / peer conflict
- Loneliness
- Low self-esteem
- Lack of sense of belonging
- Stress (in general)
- Stress related to school / work
- Stress related to discrimination / racism / Islamophobia
- Stress related to conflict with parents / family
- Stress related to identity conflict
- Stress related to sexual orientation (e.g., homophobia) or gender identity (e.g., transphobia)
- Stress related to sexuality / dating / gender relations
- Other: _____
- Other: _____
- Other: _____
- Other: _____

After first sort: Now, together, take the problems you ranked as the most important to address, and from those, pick and <u>rank the top 3</u>. Be prepared to share your thought process and reasons.

b. *If not already discussed:* Why did you pick these as the top problems?

2. How do you feel about how the Muslim American community is addressing these problems?
    a. *If not already discussed:* What is the Muslim American community currently doing to address these problems?

<u>D. Determinants of Mental Health</u>

Now let's talk about things that might influence Muslim American young adults' mental health.

1. *Conduct free-listing activity of determinants of mental health*
    a. **Instructions:** Please list what you believe are the different potential causes or sources of mental health difficulties, or emotional problems, for Muslim American 18 to 25 year olds.

       All responses are written on shared Microsoft Word screen as participants share.

       After listing: Please pick the 5 most significant or important causes or sources of mental health difficulties. Be prepared to share your thought process and reasons.

    b. *If not already discussed:* Why did you pick these as the most significant or important causes?

2. What role do you think culture and religion play in mental health or emotional problems, for Muslim American young adults?

E. Service-Seeking

Now let's talk about how Muslim American young adults deal with mental health difficulties. Think about 18-to-25-year olds in the Muslim American community.

1. Where do they seek support for their mental health?

Professional mental health services include clinics within the community, hospital, or school where practitioners – such as a psychiatrist, psychologist, clinical social worker, or therapist – provide professional services to/or work with individuals or families to help overcome mental, emotional, or psychological problems.

2. What are the barriers for Muslim American young adults to get mental health services?
    a. *If time:* What are some possible solutions to overcome these barriers?
    b. *If not already discussed:* What are things that might help make it more likely for these individuals to seek professional mental health services?

F. Conclusion

1. I have no more questions to ask but is there anything else you all would like to bring up, or ask about, before we finish this session?

Thank you all for participating in today's discussion. Everything you shared will be a valuable asset to the study, and we hope that you found today's discussion interesting and helpful. I'd like to remind you that everything shared today will be confidential. If there's anything you'd like to follow-up on, or if you have any questions about the study, I can be contacted via email at dsaifan@ucla.edu. Thank you again, I will now turn off the recording.

Appendix B: Focus Group Demographic Questionnaire

Instructions: Please respond to the following questions about your background. You may skip any question that you do not wish to answer.

Name:	**Date:**
Age (years and months)	**Gender:** • Male • Female • Trans male / Trans man • Trans female / trans woman • Genderqueer / Gender non-conforming • Different identity (please specify):
Role in study: • Mental health professional • Community leader • Young adult **Profession:** _____ **Organization / College / University:** _____	**Racial/ Ethnic Background:** *Select all that apply.* • Arab / Middle Eastern / Southwest Asian / North African • South Asian • East Asian / Southeast Asian • White / Caucasian / European-American • Black / African American / Afro-Caribbean • Spanish / Hispanic / Latinx • Native American / Alaskan Native • Native Hawaiian / Pacific Islander • Not Listed (please specify):
How do you describe your religious identification? • Ahmadiyya • Bohra • Ismaili • Nation of Islam • Salafi • Shi'a • Sufi • Sunni • Wahabi • Muslim / Non-denominational Muslim • Not Listed (please specify):	**Highest Level of Education Completed:** • Some high school • 12th grade (no diploma) • High school graduate or GED • Some college (no degree) • Associate's degree • Bachelor's degree • Master's degree (e.g., MA, MS, MSW, MFA) • Professional degree (e.g., JC, MD, OD, DO) • Doctoral degree (e.g., PhD, PsyD, EdD)
Generational Status: • 1st generation (you were born in another country) • 2nd generation (you were born in the US and at least one parent was born in another country) • 3rd generation (you and your parents were born in the US; at least one grandparent was born in another country) • Beyond 3rd generation (you, your parents, and all grandparents were born in the US)	

Appendix C: Focus Group Qualitative Codebook

MUSLIM AMERICAN YOUNG ADULT MENTAL HEALTH FOCUS GROUP CODEBOOK

CULTURE & RELIGION		
Level 1	**Level 2**	**Level 3**
Religion as a protective factor	Benefits of prayer	N/A
	Coping skills	N/A
	Sense of community / belonging	N/A
	Sense of grounding / peace	N/A
	Source of strength	N/A
	Values	N/A
Religion as a risk factor	Discrimination / Islamophobia	N/A
	Guilt / shame	N/A
	Interpretations / abuse of religion	Internalized beliefs / interpretations
		External beliefs / interpretations / abuse
	Judgment within Muslim community	N/A
	Religious beliefs about mental health	N/A
Culture as a protective factor	Empowerment	N/A
	Sense of community / belonging	N/A
	Sense of grounding / peace	N/A
	Source of strength	N/A
	Values	N/A
Culture as a risk factor	Cultural beliefs about mental health	N/A
	Guilt / shame	N/A
	Intergenerational trauma	N/A
	Interpretations / abuse of culture	Internalized beliefs / interpretations
		External beliefs / interpretations / abuse
	Judgment within cultural community	N/A
	Toxic behaviors	N/A
Duality of protective / risk factors	N/A	N/A
Family dynamics	Positive family dynamics	N/A

	Negative family dynamics	Family stigma about mental health
Identity	Balancing cultures and religion	N/A
	Mismatch of cultures and religion	Mismatch of American and ethnic cultures
		Mismatch of ethnic culture and religion
	Navigating own identity	N/A
Barriers to mental health services	Lack of Muslim mental health providers	N/A
SERVICE-SEEKING		
Level 1	**Level 2**	**Level 3**
Sources of support	Chaplain	Muslim chaplain
		Non-Muslim chaplain
	College counseling center	N/A
	Family members	N/A
	Friends / peers	N/A
	Internet / virtual resources	N/A
	Muslim community / mosques	N/A
	Online communities	N/A
	Religious leaders	N/A
	Romantic partner	N/A
	Social media	N/A
	Student organizations	N/A
	Therapy (non-college counseling)	N/A
	Other	N/A
Barriers to help-seeking	Confidentiality / trust	Fear of others finding out / desire for privacy
	COVID-related barriers	Lack of private space
	Knowledge of services	Expectations of therapy
		Lack of education about therapy
		Lack of exposure to therapy
	Lack of accessibility	Finances / lack of insurance
		Geographic location
		Navigating mental health infrastructure and insurance
		Schedule and time constraints
		Lack of transportation
	Mental health problems	N/A
		Problem too small

	Perceptions of problem and need for help	Problem too large
	Personal attitudes	Negative previous experiences
		Readiness to face problems
		Religious beliefs about mental health
		Self-reliance
		Willingness to spend money
	Seeking help from other sources	N/A
	Social environment	Family-related barriers
		Level of involvement in Muslim community
		Living at home
	Stigma	Societal stigma
		Community stigma
		Family stigma
		Self-stigma
	Therapist-related barriers	Cultural match (similar background)
		Cultural mismatch / lack of representation
		Gender
		Fear of therapist having negative perceptions
		Lack of understanding from therapist
		Restrictions placed on therapists
	Other	N/A
TAGS		
Level 1	**Level 2**	**Level 3**
Context / difference factor	Age group / generation	N/A
	Ethnic group	N/A
	Gender	N/A
	Immigrant generational status	N/A
	Living at home vs independently	N/A
	Religiosity or level of involvement in Muslim community	N/A

	Religious group	N/A
	Social group	N/A

Culture and Religion

Religion as a protective factor

Participant discusses religion or the Muslim community as having a positive impact.

Benefits of prayer

Participant discusses benefits of prayer or prayer having a positive impact.

Coping skills

Participant discusses Islam or religion as offering coping skills or methods of dealing with mental health problems.

Sense of community / belonging

Participant discusses a sense of community, belonging, or acceptance that Islam, the Muslim community, or religion provides.

Sense of grounding / peace

Participant discusses a sense of grounding or peace that Islam, the Muslim community, or religion provides.

Source of strength

Participant describes Islam, religion, or the Muslim community as providing strength or resilience to individuals.

Values

Participant describes religious values as having a positive impact.

Religion as a risk factor

Participant discusses religion or the Muslim community as having a negative impact.

Discrimination / Islamophobia

Participant discusses Islamophobia or discrimination related to religion.

Guilt / shame

Participant discusses Islam, religion, or the Muslim community as sources of guilt or shame.

Interpretations / abuse of religion

Participant discusses an individual's or community's interpretations of religion as having negative impacts. Participant may discuss abuse or weaponization of religion in order to

control or negatively impact individuals. Do not code interpretations of religion related to mental health here (instead code as "Religious beliefs about mental health").

Internalized beliefs / interpretations
Participant discusses individuals being negatively affected by their own internalized beliefs about, or interpretations of, religion.

External beliefs / interpretations / abuse
Participant discusses individuals being negatively affected by others' beliefs about, or interpretations of, religion.

Judgment within Muslim community
Participant discusses judgment, or fear of judgment, within the Muslim community. Participant may also discuss division within Muslim community rooted in judgment or evaluation among community members.

Religious beliefs about mental health
Participant discusses religious-based beliefs about the meaning or sources of mental health problems, about people with mental health problems, or about mental health service-seeking.

Culture as a protective factor
Participant discusses culture or an ethnic community as having a positive impact.

Empowerment
Participant discusses a sense of empowerment that culture, or a cultural / ethnic group, provides.

Sense of community / belonging
Participant discusses a sense of community, belonging, or acceptance that a cultural / ethnic group provides.

Sense of grounding / peace
Participant discusses a sense of grounding or peace that culture, or a cultural / ethnic group, provides.

Source of strength
Participant describes culture, or a cultural / ethnic group, as providing strength or resilience to individuals.

Values
Participant describes cultural values as having a positive impact.

Culture as a risk factor
Participant discusses culture or ethnic community as having a negative impact.

Cultural beliefs about mental health
Participant discusses cultural beliefs about the meaning or sources of mental health problems, about people with mental health problems, or about mental health service-seeking.

Guilt / shame
Participant discusses culture, or a cultural / ethnic community, as a source of guilt or shame.

Intergenerational trauma
Participant discusses trauma passed across generations within a cultural or ethnic group. Participant may refer to historical trauma or genocide of a cultural or ethnic group.

Interpretations / abuse of culture
Participant discusses an individual's or community's interpretations of culture or cultural norms as having negative impacts. Participant may discuss abuse or weaponization of culture or cultural norms in order to control or negatively impact individuals. Do not code interpretations of culture related to mental health here (instead code as "Cultural beliefs about mental health").

Internalized beliefs / interpretations
Participant discusses individuals being negatively affected by their own internalized beliefs about, or interpretations of, culture.

External beliefs / interpretations / abuse
Participant discusses individuals being negatively affected by others' beliefs about, or interpretations of, culture.

Judgment within cultural community
Participant discusses judgment, or fear of judgment, within a cultural or ethnic community. Participant may also discuss division within cultural or ethnic community rooted in judgment or evaluation among community members.

Toxic behaviors
Participant describes toxic behaviors within a cultural or ethnic group, or describes cultural norms or practices that are negative or harmful. Participant may describe hypocritical behaviors within cultural group.

Duality of protective / risk factors
Participant discusses something as having both positive and negative impacts on mental health.

Family dynamics

Participant discusses features of family dynamics / relationships or family structures as having an impact on mental health.

Positive family dynamics
Participant discusses features of family dynamics / relationships or family structures as having a positive impact.

Negative family dynamics
Participant discusses features of family dynamics / relationships or family structures as having a negative impact.

Family stigma about mental health
Participant discusses negative family beliefs about the meaning or sources of mental health problems, about people with mental health problems, or about mental health service-seeking.

Identity
Participant discusses aspects of identity, including cultural or religious identities, as having an impact on mental health.

Balancing cultures and religion
Participant discusses integration, or lack thereof, of culture and religion. Participant may discuss differing importance or weight of culture and religion for individuals or communities. When discussing balancing cultures, participant may refer to ethnic culture or American culture.

Mismatch of cultures and religion
Participant discusses discrepancies or contradictions between culture and religion.

Mismatch of American and ethnic cultures
Participant discusses discrepancies or contradictions between American culture and religion or ethnic culture. Participant may discuss differences between American and religious / ethnocultural norms and expectations.

Mismatch of ethnic culture and religion
Participant discusses discrepancies or contradictions between ethnic culture and religion. Participant may discuss differences between ethnocultural and religious norms and expectations.

Navigating own identity
Participant discusses individuals navigating or forming their own independent identities. Participant may discuss individuals defining their own cultural and religious values and beliefs.

Barriers to mental health services

Participant discusses barriers to mental health services related to culture or religion.

Lack of Muslim mental health providers
Participant discusses a lack of Muslim mental health providers as a barrier to treatment.

Service-Seeking

Sources of support
Participant discusses sources of support for mental health problems or emotional challenges.

Chaplain
Participant discusses chaplains as a source of support for mental health problems.

Muslim chaplain
Participant discusses Muslim chaplains as a source of support for mental health problems.

Non-Muslim chaplain
Participant discusses non-Muslim chaplains as a source of support for mental health problems.

College counseling center
Participant discusses college counseling centers as a source of support for mental health problems.

Family members
Participant discusses family members as a source of support for mental health problems.

Friends / peers
Participant discusses friends or peers as a source of support for mental health problems.

Internet / virtual resources
Participant discusses the internet, virtual resources, or virtual apps as a source of support for mental health problems. Participant may describe online therapeutic resources. Online communities and social media as sources of support should not be coded here (instead, code “Online communities” or “Social media”).

Muslim community / mosques
Participant discusses the Muslim community or mosques as a source of support for mental health problems.

Online communities

Participant discusses online communities as a source of support for mental health problems. Participant may discuss online forums or virtual chat communities as sources of support.

Religious leaders
Participant discusses religious leaders (not including chaplains) as a source of support for mental health problems.

Romantic partner
Participant discusses romantic partners or spouses as a source of support for mental health problems.

Social media
Participant discusses social media as a source of support for mental health problems.

Student organizations
Participant discusses student organizations, Muslim or otherwise, as a source of support for mental health problems.

Therapy (non-college counseling)
Participant discusses therapy outside of college counseling centers as a source of support for mental health problems.

Other
Participant discusses a source of support for mental health problems not captured by other codes.

Barriers to help-seeking
Participant discusses barriers for Muslim American young adults to seek professional mental health services.

Confidentiality / trust
Participant discusses concerns related to confidentiality or lack of trust as a barrier to mental health service-seeking.

Fear of others finding out / desire for privacy
Participant discusses a fear of others finding out, or a desire for privacy / secrecy, as a barrier to mental health service-seeking.

COVID-related barriers
Participant discusses the COVID-19 pandemic and consequent issues as barriers to mental health service-seeking.

Lack of private space

Participant discusses a lack of private space due to telehealth during the COVID-19 pandemic as a barrier to mental health service-seeking.

Knowledge of services

Participant discusses barriers to mental health service-seeking related to the amount or type of knowledge an individual holds about mental health services.

Expectations of therapy

Participant discusses individuals' expectations of therapy as a barrier to mental health service-seeking. Participant may discuss false or inaccurate expectations of therapy, or therapy not meeting participants' expectations.

Lack of education about therapy

Participant discusses individuals' lack of education about therapy as a barrier to mental health service-seeking. Participant may discuss a lack of education about the purpose of therapy, therapy options, or the therapy process.

Lack of exposure to therapy

Participant discusses individuals' lack of exposure to therapy as a barrier to mental health service-seeking. Participant may discuss individuals not having previous experiences with therapy, not knowing others in therapy, or not seeing therapy in the media.

Lack of accessibility

Participant discusses accessibility issues as a barrier to mental health service-seeking.

Finances / lack of insurance

Participant discusses financial constraints or a lack of, or limited, insurance as a barrier to mental health service-seeking. Participant may also discuss young adults being unable to access parents' insurance as a barrier.

Geographic location

Participant discusses concerns related to individuals' geographic location as a barrier to mental health service-seeking. Participant may discuss limited availability of mental health services in particular locations or types of locations.

Navigating mental health infrastructure and insurance

Participant discusses difficulties navigating mental health infrastructure and the insurance system as a barrier to mental health service-seeking. Participant may discuss barriers related to finding a therapist or to finding appropriate help.

Schedule and time constraints

Participant discusses time conflicts as a barrier to mental health service-seeking.

Lack of transportation

Participant discusses transportation-related issues as a barrier to mental health service-seeking.

Mental health problems

Participant discusses individuals' mental health struggles as a barrier to mental health service-seeking. Participant may discuss anxiety or depression symptoms interfering with individuals' ability to seek help.

Perceptions of problem and need for help

Participant discusses individuals' perceptions of the scope of their problem, or their perceived level of need for help, as barriers to mental health service-seeking.

Problem too small

Participant discusses barriers related to individuals believing their problem is not big enough to warrant mental health services, or that mental health services aren't needed or prioritized.

Problem too large

Participant discusses barriers related to individuals believing their problem is too big or impactful for mental health services to be effective or helpful.

Personal attitudes

Participant discusses individuals' personal attitudes or beliefs (not related to stigma) as a barrier to mental health service-seeking.

Negative previous experiences

Participant discusses individuals' previous negative experiences with therapy as a barrier to mental health service-seeking. Participant may discuss individuals' own experiences or learning about others' negative experiences.

Readiness to face problems

Participant discusses individuals' lack of readiness to face their mental health problems as a barrier to mental health service-seeking. Participant may discuss individuals' fear of acknowledging their problems and dealing with the implications of discussing their problems.

Religious beliefs about mental health

Participant discusses religious-based beliefs about the meaning or sources of mental health problems, or about people with mental health problems, as a barrier to mental health service-seeking.

Self-reliance

Participant discusses individuals' beliefs that they can / should deal with problems on their own as a barrier to mental health service-seeking.

Willingness to spend money

Participant discusses individuals' unwillingness to spend money on services as a barrier to mental health service-seeking. Participant may discuss individuals' lack of willingness to financially prioritize mental health services.

Seeking help from other sources

Participant discusses seeking help, or a preference to seek help, from other sources (e.g., family, friends, God) as a barrier to mental health service-seeking.

Social environment

Participant discusses aspects of individuals' social environments as a barrier to mental health service-seeking.

Family-related barriers

Participant discusses individuals' lack of support from their families (not including stigma) as a barrier to mental health service-seeking. Participant may describe family dynamics and other issues with family members.

Level of involvement in Muslim community

Participant discusses individuals' level of involvement in the Muslim community as a barrier to mental health service-seeking.

Living at home

Participant discusses living at home with parents / family as a barrier to mental health service-seeking.

Stigma

Participant discusses general stigma (i.e., negative beliefs or judgment related to mental health or service-seeking) as a barrier to mental health service-seeking.

Societal stigma

Participant discusses stigma, judgment, or negative beliefs about mental health or service-seeking within society as a barrier to mental health service-seeking.

Community stigma

Participant discusses stigma, judgment, or negative beliefs about mental health or service-seeking within their community, including a religious or ethnic community, as a barrier to mental health service-seeking.

Family stigma

Participant discusses stigma, judgment, or negative beliefs about mental health or service-seeking within one's family as a barrier to mental health service-seeking.

Self-stigma

Participant discusses internalized stigma, judgment, or negative beliefs about mental health or service-seeking within an individual as a barrier to mental health service-seeking.

Therapist-related barriers
Participant discusses concerns or issues related to therapist characteristics, perceptions of therapists, or beliefs about the therapeutic relationship as barriers to mental health service-seeking.

Cultural match (similar background)
Participant discusses therapists sharing similar backgrounds (e.g., ethnic, religious) with clients as a barrier to mental health service-seeking.

Cultural mismatch / lack of representation
Participant discusses therapists having different backgrounds (e.g., ethnic, religious) with clients as a barrier to mental health service-seeking. Participant may discuss lack of representation of certain ethnic, religious, or cultural groups among mental health professionals.

Gender
Participant discusses therapists' gender identity as a barrier to mental health service-seeking.

Fear of therapist having negative perceptions
Participant discusses individuals' fear that therapists will judge or shame them based on what is shared during therapy sessions as a barrier to mental health service-seeking. Participant may discuss a fear of therapists forming negative perceptions about an individual or community as a barrier.

Lack of understanding from therapist
Participant discusses individuals' fear or concern that therapists will not relate to or understand their experiences (culturally or individually) as a barrier to mental health service-seeking. Participant may discuss individuals' discomfort or concern related to having to explain oneself or one's background as a barrier.

Restrictions placed on therapists
Participant discusses restrictions placed on therapists in their professional role as a barrier to mental health service-seeking. Participant may discuss professional expectations or requirements of mental health providers as barriers.

Other
Participant discusses a barrier that is not reflected in code list.

Tags

Context / difference factor

Age group / generation

Participant describes differences across age group or generation.

Ethnic group
Participant describes differences across ethnic groups.

Gender
Participant describes differences across genders.

Immigrant generational status
Participant describes differences across immigration generational status or acculturation levels.

Living at home vs. independently
Participant describes differences across people who live at home with their families or who live independently.

Religiosity or level of involvement in Muslim community
Participant described differences across people who have differing levels of religiosity or involvement in the Muslim community.

Religious group
Participant describes differences across religions or religious sects.

Social group
Participant describes differences across social groups. Participant may describe differences depending on social standing or social positionality.

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CHAPTER 2:

Interplay of Religious and Racialized Identities in Buffering versus Exacerbating the Mental Health Implications of Discrimination Perceived by Arab and South Asian Muslim American Young Adults

Abstract

Research has yielded mixed findings regarding the role of group identification in buffering or exacerbating the effects of group-based discrimination on mental health. Whereas many studies have focused on social identities based on race, gender, and sexuality, few studies have examined those based on religion. Moreover, the implications of holding multiple minority identities for experiences of discrimination are not well understood. As both religious and racial/ethnic minorities, Muslim American young adults may face heightened risk for discrimination and associated mental health problems. To understand the role of dual minority group identification, perceived discrimination, and mental health among Muslim American young adults, the current study used a cross-sectional online survey administered to 277 Arab and South Asian Muslim American young adults (ages 18 to 25) nationally. A series of research questions were examined in this study, with the first two questions aiming to replicate prior findings concerning single group identification as potential psychological resource factors or protective factors, and the second two questions addressing novel questions concerning dual minority identification and relations to mental health risk: (1) To what extent does perceived discrimination act as a risk factor, and religious and ethnic group identification act as resource factors, for Muslim American young adults' self-reported mental health symptoms? (2) Do religious and ethnic group identification individually moderate (i.e., buffer or exacerbate) the relationship between perceived discrimination and mental health status? (3) How are patterns of dual minority religious and ethnic identification associated with mental health status? and (4) Do patterns of dual minority religious and ethnic identification moderate (i.e., buffer or exacerbate) the relationship between perceived discrimination and mental health status? Findings revealed that, for Muslim American young adults, perceived discrimination was a risk factor, and

religious group identification, but not ethnic group identification, was a resource factor. Furthermore, religious group identification exacerbated the effect of discrimination on depression symptoms. Latent profile analyses yielded three profiles of dual group identification. Individuals with Low Muslim / High Ethnic group identification reported greater depressive, anxiety, and substance use symptoms than individuals reporting high identification with both groups. Profile membership did not moderate the discrimination-mental health pathway. Given the distinct associations of religious and ethnic group identification with mental health outcomes, findings underscore the importance of examining individuals' multiple identities to understand the unique roles of different identities for mental health.

Introduction

Social identity theory posits that individuals form a social identity when they define themselves as a member of a particular social group (Turner et al., 1987). Individuals belong to numerous groups, and their resulting set of social identities, including their group memberships and the associated emotional significance, become part of their unique self-concept (Tajfel & Turner, 1979). Whereas research has primarily examined social identities based on race (e.g., Branscombe et al., 1999), gender (e.g., Schmitt et al., 2003), nationality (e.g., Bond, 2006), and sexuality (e.g., Meyer, 2003), few studies have examined social identity based on religion, despite the critical implications of religion for one's self-concept and well-being (Ysseldyk et al., 2010). Moreover, it is imperative to simultaneously examine individuals' multiple group memberships to achieve a more holistic understanding of their identities, experiences and psychological processes.

Social identity may contribute to positive psychological outcomes as either a resource or protective factor. Resource factors promote positive outcomes, regardless of the level of risk experienced, whereas protective factors mitigate the negative impact of a risk factor when risk is present (Klein & Forehand, 2000). Theories of identity development have suggested that identity may serve as an anxiety-controlling mechanism by providing individuals a sense of trust, predictability, and control (Kinnvall, 2004). A strong social identity, or group identification, has been found to be linked to positive psychological well-being (e.g., Taylor & Brown, 1988) and has often been thought to be protective, even under conditions when an individual's identity may be stigmatized or marginalized (e.g., through discrimination, group-directed animus, or political violence; Mossakowski, 2003; Neblett et al., 2012). Further, strong group identification is thought to reduce self-uncertainty (Grant & Hogg, 2012), offer a sense of belonging and support

(Tarrant, 2002), increase perceived personal control (Greenaway et al., 2015), and promote collective action (Klandermans, 2002).

Conceptualizations of group identification have varied greatly and have often inadequately treated group identification as a narrow or unitary construct (Ashmore et al., 2004; Leach et al., 2008; Phinney & Ong, 2007; Sellers et al., 1998). In order to examine individuals' social identities holistically, researchers have sought to identify specific components of in-group identification. Leach and colleagues (2008) built on the extant literature to develop a comprehensive, hierarchical, multi-component model of in-group identification. In this model, individuals' in-group identifications vary on two general dimensions of group-level *self-definition* and *self-investment.* Self-definition comprises the components of *individual self-stereotyping* (i.e., perceptions of oneself as similar to an in-group prototype) and *in-group homogeneity* (i.e., perceptions of the in-group as sharing commonalities). Self-investment comprises the components of *solidarity* (i.e., sense of a bond with the in-group), *satisfaction* (i.e., positive feelings about in-group membership), and *centrality* (i.e., importance and salience of in-group membership). Thus, individuals who have a strong group identity are thought to demonstrate greater levels of each of these components.

Minority Identities and Mental Health

Individuals' social groups exist within stratified societies, in which groups differ in their levels of power, status, and resources (Hogg & Abrams, 1988). The minority stress model posits that individuals belonging to minority groups face excess stress as a result of exposure to stressors related to their group's social position, as well as conflict between members of a marginalized group and the dominant culture (Meyer, 2003). This model outlines a continuum of stress processes that affect mental health, from distal stressors (i.e., objective events and

conditions related to social stratification) to proximal personal processes (i.e., individuals' subjective perceptions and appraisals of events and conditions). Distal stressors may include prejudice events (e.g., discrimination, violence), whereas proximal processes result from an individual's minority identification and may include expectations of rejection, identity concealment, or internalized oppression. Characteristics of one's minority identity (e.g., prominence and valence of identity, integration of identity with other identities) may augment or weaken the impact of stress on mental health.

Although most minority stress research has focused on holding a single minority identity, holding multiple marginalized identities may place individuals at even greater risk for mental health problems. Indeed, studies have shown that individuals who are multiply disadvantaged reported more types of discrimination and, in turn, higher levels of distress (Grollman, 2014). Given individuals' complex identities and multiple group memberships, examining the intersection of multiple identities is warranted (Crenshaw, 1990; Cole, 2009; Seng et al., 2012). Feminist multicultural theory (e.g., Sandil et al., 2014; Szymanski & Gupta, 2009) proposes that individuals who hold multiple minority identities may be impacted by their multiple oppressions in four different ways (Brown, 1994). The *primary oppression* perspective states that individuals will be impacted most by one form of oppression (Deaux, 1996), with the primary form of oppression being influenced by the environment, reference group, or whichever identity is most salient to the individual at the given time (Reynolds & Pope, 1991). However, this perspective has been met with criticism for treating non-primary identities as invisible and not accounting for the concurrent experience of multiple oppressions (Moradi & Subich, 2003). The *additive* perspective, sometimes termed "double jeopardy" (Beal, 1970), suggests that each form of oppression has independent direct effects and will combine additively to negatively impact well-

being. The *interactionist* or *multiplicative* perspective ("multiple jeopardy"; King, 1988), states that, in addition to the additive direct effects of each form of oppression, one form of oppression may interact with and intensify other forms of oppression (e.g., racism may exacerbate the impact of sexism). Lastly, the *intersectionality* perspective posits that separate dimensions of oppression uniquely combine to construct novel and distinct experiences that may worsen psychological outcomes. Each group's unique position (e.g., as a lesbian) in the social structure may be different or greater than the sum of its parts (e.g., gender and sexual orientation; Moradi & Subich, 2003; Szymanski et al., 2008). Although numerous theoretical perspectives are available to understand the impact of multiple minority status on mental health, there is no empirical consensus to date on which perspective best explains mental health outcomes and little established quantitative methodology for examining these premises.

Despite the emerging dual minority stress literature, extant research has primarily focused on dual racial/ethnic and sexual minority identities (Chen & Tryon, 2012; Sandil et al., 2014; Szymanski & Gupta, 2009). Very few studies have accounted for marginalized religious identities, which may themselves act as risk, resource or protective factors (e.g., Balkaya et al., 2019). Thus, it is important to expand upon existing research to better understand the mental health experiences of individuals who are not only racial/ethnic minorities but also religious minorities, as these two identities are often central to one's self-concept.

The Discrimination—Mental Health Pathway

Belonging to a minority group places individuals at increased risk for discrimination, a significant risk factor for various life outcomes (e.g., job attainment) and psychological well-being (Schmitt et al., 2014). In addition to the objective harmful effects of mistreatment and disadvantage, individuals may experience further impacts on their well-being when they perceive

events to be discriminatory. When minority group members perceive events as discrimination, they are more likely to make attributions that are partially external (e.g., the perpetrator is the cause) and partially internal (e.g., one's own group membership is the cause), contributing to a sense of exclusion and devaluation of one's group (Schmitt & Branscombe, 2002). Studies have consistently demonstrated the negative effects of perceived discrimination on mental health, with discrimination (regardless of type) being negatively associated with well-being, self-esteem, life satisfaction, and positive affect, and positively associated with distress and negative affect, especially for members of disadvantaged groups (Benner, et al., 2018; Schmitt et al., 2014).

However, studies in this field face several limitations, including challenges in measuring discrimination. Discrimination is typically measured via self-report measures, making research susceptible to different types of perception bias (Kaiser & Major, 2006). Individuals may engage in minimization bias (i.e., perceiving less discrimination than actually exists), not attributing negative treatment to discrimination. Alternatively, individuals may engage in vigilance bias (i.e., perceiving more discrimination than actually exists), as an individual's history of discrimination may lead them to attribute ambiguous experiences to discrimination, in an effort to protect themselves from harm or maintain self-worth. However, although self-report measures cannot be verified, perceptions of discrimination represent in themselves a form of stress, which has negative health implications (Pascoe & Richman, 2009). That being said, cross-sectional studies of the link between discrimination and mental health measurement cannot rule out the possibility that mental health symptoms increase appraisals of discriminatory treatment (Lewis et al., 2015). However, some longitudinal data have shown that perceived discrimination predicted higher levels of depression at a later time point, whereas the converse was not found (Brown et al., 2000).

There also exists debate related to measuring discrimination in one versus two stages. The one-stage approach asks individuals to report on experiences with specific types of discrimination. The two-stage approach first asks individuals to report on general experiences of unfair treatment, then asks them to make an attribution regarding the source of unfair treatment (e.g., race/ethnicity, accent, social class, weight). Although there is no consensus about the most effective approach to measuring discrimination, the majority of studies indicate that experiences of unfair treatment may be more important for health than the specific attribution to a group identity (Lewis et al., 2015). Moreover, measuring unfair treatment generally may help capture the experiences of individuals who experience multiple types of discrimination.

Furthermore, extant studies have over-emphasized examination of psychological well-being (e.g., self-esteem) as an outcome of discrimination, rather than examining clinically significant mental health outcomes (e.g., diagnosed mental illness, clinically significant elevations on normed measures of symptom distress). This limitation points to the need for more studies investigating the role of discrimination in psychopathology, as variations in well-being may not have the same chronic or long-lasting impacts on functioning as mental illness and may provide less concrete guidance for community needs assessments (Lewis et al., 2015).

Ethnic Identity and Mental Health

Examination of identity among adolescents and young adults is particularly important, given the critical identity formation occurring during this developmental period (Berman et al., 2001; Marcia et al., 2003). The social identity literature has often focused on ethnic identity, which is especially central for individuals belong to ethnic minority groups. Ethnic identity has been shown to be a significant resource factor for mental health across racial/ethnic groups, especially for adolescents and young adults (Smith & Silva, 2011). A strong ethnic identity has

been found to be associated with positive self-concept, high self-esteem, self-efficacy, and positive coping styles (Greig, 2003; Phinney, 1991; Phinney & Chavira, 1992), in addition to fewer symptoms of depression and anxiety (Yasui et al., 2004).

Although this field of research is growing, the extant literature faces several limitations, including over-emphasis on psychological well-being, rather than clinically significant mental health outcomes. Whereas ethnic identity has been consistently related to self-esteem and well-being, one meta-analysis found that ethnic identity was not as strongly related to mental health symptoms (e.g., anxiety, depression), indicating that ethnic identity may not protect against mental illness (Smith & Silva, 2011). However, this meta-analysis included few studies with at-risk or clinical samples, indicating a need for further research with populations that may be at risk for psychopathology. Additionally, many studies in this area employ cross-sectional designs, limiting the ability to draw conclusions about causality (Phinney & Chavira, 1992). The current study aims to replicate these past findings and examine ethnic identification as a resource factor for Arab and South Asian Muslim American young adults.

Ethnic Identity as a Moderator of the Discrimination—Mental Health Pathway

Given the negative impact of racial/ethnic discrimination on a range of psychological and mental health outcomes (Paradies, 2006; Schmitt et al., 2014; Sellers et al., 2006; Tynes et al., 2008), a growing area has focused on risk and resilience frameworks to explore whether aspects of ethnic identity confer protection in the face of discrimination (Fergus & Zimmerman, 2005). The literature on ethnic identity as a moderator of the discrimination—mental health pathway has yielded mixed results, with some studies finding that strong ethnic identity in the face of discrimination is protective, as it may provide a source of pride, belonging, or affirmation (Neblett et al., 2012; Outten et al., 2009). However, other studies have found components of

ethnic identity to exacerbate the relationship between perceived discrimination and distress (McCoy & Major, 2003; Torres et al., 2011; Yoo & Lee, 2008). One meta-analysis reported that 18% of analyses found group identification to buffer the relationship between perceived discrimination and outcomes such as depressive symptoms, self-esteem, and perceived stress, whereas 12% of analyses indicated that group identification exacerbated these relationships, and the remaining 71% of analyses found no moderation (Pascoe & Richman, 2009).

Competing hypotheses attempt to explain why studies may find mixed buffering or exacerbating effects of ethnic identity for individuals belonging to minority groups. The rejection-identification model suggests that, as an adaptive coping response, individuals may increase their identification with their disadvantaged group, which buffers the negative effects of discrimination (Branscombe et al., 1999; Postmes & Branscombe, 2002). A strong ethnic identity may provide a sense of belonging that serves to maintain an in-group image that reinforces its unique, positive aspects and makes negative stereotypes or discrimination less likely to be integrated into one's self-concept (Crocker & Major, 1989; Mossakowski, 2003; Pascoe & Richman, 2009; Yoo & Lee, 2008). On the other hand, a strong and central ethnic identity may exacerbate negative effects of discrimination because highly identified group members may be vigilant and sensitive to discriminatory experiences (Mendoza-Denton et al., 2002; Pascoe & Richman, 2009). Individuals with a strong ethnic identity may have increased intergroup rejection sensitivity because they are more likely to invest in their in-group identification (Yoo & Lee, 2008). Whereas individuals with low ethnic group identification are more likely to distance themselves from their group to protect themselves when the group is threatened, individuals with a strong ethnic identity are less likely to do so (Ellemers et al., 2002). Such mixed results underscore the need to further examine the relationship between discrimination, ethnic identity

and mental health.

Religious Identity and Mental Health

Extant research on the association between religious identity and psychological outcomes is more limited than ethnic identity research. Religiosity is central to many individuals' self-concepts (Verkuyten & Yildiz, 2007) and may represent both a meaningful social identity and central belief system, making it particularly powerful in shaping psychosocial processes (Ysseldyk et al., 2010). Religious identities may represent a resource for mental health both directly, through spirituality and faith, and indirectly, through social mechanisms. In regard to direct benefits, religion may provide individuals a sense of purpose (Pargament, 2002) and ontological security (i.e., sense of safety, stability, and trust in the world), which aids individuals in maintaining psychological well-being (Giddens, 1991; Kinnvall, 2004). By providing rules, moral guidance, and answers to existential questions, religion may also provide a sense of order and relief (Kinnvall, 2004). Regarding indirect benefits, religious identification offers individuals a sense of community through organized support networks (Graham & Haidt, 2010) and shared faith in a higher power (Pargament, 2002), which may confer a sense of belonging, access to resources, and social support. Members of religious groups also share historical and cultural experiences through physical religious spaces, practices and rites (e.g., prayer), and symbols (e.g., clothing). Moreover, religion may be especially helpful for oppressed minority groups, as religious centers often serve social, political, health, psychological, and spiritual functions for those excluded from or neglected by mainstream institutions (Pargament, 1997).

Multiple systematic reviews and meta-analyses have supported the view of religiosity as a resource factor for psychological outcomes. Higher religiosity has been positively associated with well-being, self-esteem, and life satisfaction, and negatively associated with symptoms of

depression and anxiety (Greenfield & Marks, 2007; Koteskey et al., 1991; Smith et al., 2003). The current study aims to replicate these past findings and examine religious identification as a resource factor for Muslim American young adults.

Religious Identity as a Moderator of the Discrimination—Mental Health Pathway

Despite the positive effects of religiosity on psychological outcomes, specific religious social identities are thought to confer negative impacts on well-being through increased encounters with intergroup conflict (Ysseldyk et al., 2010). For example, members of non-Christian religious groups were found to report greater perceived discrimination (Jordanova et al., 2015). For members of marginalized religious groups, greater visibility of religious identification (e.g., wearing *hijab* or Islamic headscarf) has been found to be linked to greater perceived discrimination, likely due to highlighted intergroup differences (Jasperse et al., 2011; Sirin & Katsiaficas, 2011). Perceived religious discrimination has been shown to be associated with increased risk for common mental health disorders (Jordanova et al., 2015) and internalizing problems (Balkaya et al., 2019).

Yet, few studies have examined the link between religious identity and mental health within the context of discrimination, pointing to the need for additional research to determine whether a strong religious identity buffers or exacerbates the impact of discrimination on mental health. Given the aforementioned benefits of religiosity, a strong religious identity may be protective. As with ethnicity, the rejection-identification model posits that individuals' increased identification with their disadvantaged group may buffer the impact of discrimination (Branscombe et al., 1999). Further, religion may provide a global meaning-making system in the context of stressors (Park, 2005), as well as an array of positive coping strategies, including prayer or problem-solving with God (Bierman, 2006; Harrison et al., 2001). These positive

coping strategies have been linked to positive psychological outcomes and often stem from a secure relationship with God and spiritual connectedness with others (Pargament, 2002). However, some religious coping strategies have been found to be harmful for mental health, include placing blame on God or passively deferring problem-solving to God. Such strategies are often used by those who have a less secure relationship with God or are struggling with their religious identity (Pargament, 2002). Thus, when faced with discrimination, individuals with a strong religious identity may use protective coping strategies, whereas those with low religious identification may use negative coping strategies.

On the contrary, individuals who belong to a marginalized religious group and have a strong religious identity may experience heightened effects of discrimination on mental health. Some data suggest that a strong religious identity, compared with ethnic and national identification, may have a greater exacerbating effect on discrimination, given the unique and sacred role that religion plays in individuals' daily lives (Ysseldyk et al., 2010). Additionally, because religious group membership is more likely to be perceived as a voluntary choice, people may blame themselves for their marginalization, contributing to lower self-esteem (Crocker & Major, 1989). Although empirical investigation in this area is limited, several international studies of Muslim immigrant females found that a strong religious identity exacerbated the negative effects of discrimination on well-being, as well as internalizing and externalizing problems (Jasperse et al., 2011; Maes et al., 2014).

However, this research faces several limitations including a cross-sectional approach, limiting the ability to draw conclusions about directionality of influence and the long-term effects of religious behaviors and identification (Pargament, 2002). Additionally, much of the extant research has examined limited psychosocial measures of well-being, whereas fewer

studies examined clinically significant mental health outcomes. Further, religion may function differently across religious groups, warranting examination of diverse religions, especially those at risk for discrimination (Jordanova et al., 2015). Finally, very little research in this area has been conducted in the U.S. to date, and research in other geographic contexts is very limited.

Discrimination, Identity, and Mental Health Among Muslims

Given the increased vulnerability of multiply marginalized individuals for discrimination and mental health challenges, it is critical to investigate the impact of perceived discrimination on mental health in the context of holding multiple minority identities, including a minority religious identity and ethnic identity. Given the precarious position of Muslims in the current sociopolitical climate, as both religious minorities and ethnic minorities in the U.S., examination of these constructs within Muslim American samples offers an opportunity to better understand the discrimination—mental health pathway and the role of identity in this pathway, within the context of multiple minority status.

In a predominantly Muslim sample of Arab American adolescents, Ahmed and colleagues (2011) found that socio-cultural adversity (e.g., perceived racism) was a risk factor for psychological distress whereas cultural resources (e.g., ethnic group identification, religious coping and support) were resource factors for psychological distress. However, the authors found that ethnic identity and other cultural resources did not serve as protective factors (i.e., no moderating effects were found). In another study, Balkaya and colleagues (2019) examined the role of religious and national identities in mediating the relationship between discrimination and mental health among Muslim American adolescents. The authors found that, although adolescents' Muslim identity did not mediate the relationship between discrimination and mental health, their American identity did mediate the association between individual-level religious

discrimination and internalizing and externalizing problems, highlighting the distinct effects that an individual's different identities may have on mental health. Moreover, in the Netherlands, a study of Muslim immigrant adolescents explored the moderating role of ethnic, religious, and host national identification on the association between perceived discrimination and problem behaviors (Maes et al., 2014). This study revealed that, for girls, strong religious group identification exacerbated the impact of discrimination, whereas strong ethnic group identification buffered the impact of discrimination, highlighting the importance of investigating multiple aspects of identity. Given the mixed findings of these studies, the current study replicates prior analyses that have sought to clarify the role of religious and ethnic identities separately as resource factors and potential moderators of the association between perceived discrimination and mental health outcomes in a sample of Muslim American young adults. The study addresses the following research questions: (1) To what extent does perceived discrimination act as a risk factor, and religious and ethnic group identification act as resource factors, for Muslim American young adults' self-reported mental health symptoms?; and (2) Do religious and ethnic group identification moderate the relationship between perceived discrimination and mental health status?

The Novel Contribution of the Current Study

To address the aforementioned gaps in the literature and to potentially clarify previous mixed findings, the current study aims to better understand the discrimination—mental health pathway and the role of multiple group identification for individuals with multiple minority status. As both religious and ethnic minorities, examination of Arab and South Asian Muslim American young adults offers a unique opportunity to examine these questions. Young adults may face multiple sources of discrimination and may cope in a variety of ways, including

emphasizing their identities as Muslims, or distancing themselves from their Muslim identities to protect themselves (Abu El-Haj & Bonet, 2011). Based on the extant research, perceived discrimination and its impact on mental health may vary by the extent to which young adults simultaneously identify with both their religious and ethnic groups. Thus, the current study investigates dual minority religious and ethnic group identification as a potential resource factor and moderator of the relationship between discrimination and mental health. The following two research questions will be examined: (3) How are patterns of dual minority religious and ethnic identification associated with mental health status?; and (4) Do patterns of religious and ethnic identification moderate (i.e., buffer or exacerbate) the relationship between perceived discrimination and mental health status?

Study Hypotheses:

For Research Question 1, in line with previous literature, we hypothesized that perceived discrimination will serve as a risk factor, such that it will be positively associated with symptoms of depression, anxiety, substance use, and traumatic stress. We also hypothesized that religious and ethnic group identification will serve as resource factors, such that they will each be negatively associated with mental health symptoms. For Research Question 2, given the mixed findings in the literature, no specific hypotheses were made about whether religious and ethnic group identification would moderate the relationship between perceived discrimination and mental health status. For Research Question 3, we hypothesized that latent profile analysis will either yield three classes of individuals (i.e., 1: those who report both high religious and high ethnic group identification, 2: those who report both low religious and low ethnic group identification, and 3: those who highly identify with only one group) or four classes of individuals (i.e., 1: those who report both high religious and high ethnic group identification, 2:

those who report both low religious and low ethnic group identification, 3: those who report high religious and low ethnic group identification, and 4: those who report low religious and high ethnic group identification). Competing hypotheses were tested, such that we hypothesized that strong identification with both religious and ethnic groups would be associated with the best mental health status. Alternatively, we hypothesized that individuals with strong identification with both religious and ethnic groups would not have significantly better mental health status than individuals with strong identification with only one group, but that individuals with strong identification with at least one group would have significantly better mental health status than those with low identification with both groups. Finally, for Research Question 4, we examined latent profile membership as a moderator of the discrimination-mental health pathway. As with Research Question 2, no a priori hypotheses were made concerning exacerbation or buffering effects of dual minority identification.

Gender was included as a covariate in analyses, given past findings of gender differences in studies of group identification as a moderator of the discrimination—mental health pathway (Maes et al., 2014; Umaña-Taylor & Updegraff, 2007), as well as gender differences in Muslim stereotypes (Selod & Embrick, 2013). Additionally, race/ethnicity was included as a covariate, as Arabs and South Asians are likely to have different experiences of discrimination, given that Arabs are closer to the Muslim prototype, and may have differing mental health outcomes as a result (Joshi, 2006).

Method

The current study utilized a cross-sectional survey design, to assess the impact of perceived discrimination on mental health symptoms (i.e., anxiety, depression, substance use, traumatic stress), as well as the role of dual religious and ethnic group identification in buffering

or exacerbating this relationship. Data was collected between August and October 2020. The institutional review board of the University of California, Los Angeles approved all study procedures.

Participants

The survey was administered online to 307 Muslim American young adults (ages 18 to 25) nationally. Specifically, Muslims who identify as Arab or South Asian were recruited, as the immigrant histories of these racial groups and the proximity of these racial groups to the "Muslim prototype" (Joshi, 2006) in the U.S. pose heightened risk for marginalization and mental health problems. Given that ethnic group identification was a significant research interest, individuals who identified as multiracial were excluded from the present study (n = 30), yielding a final sample size of 277. Participants were strategically recruited from a large range of sources to capture a diverse sample of Muslim young adults varying in levels of religious identification, social attitudes, and experiences. Specifically, participants were recruited from social media; mosques; college organizations serving Muslims (e.g., Muslim Student Association); the American Arab, Middle Eastern, and North African Psychological Association (AMENA-Psy); and organizations and social media outlets for progressive Muslims (e.g., Muslim Anti-Racism Collaborative, Feminist Islamic Trouble Makers of North America, Woman While Muslim). Flyers, advertisements, and recruitment scripts were shared electronically, and snowball sampling was used, such that individuals were able to refer others to the study. All participants completed an initial survey interest form and, following the Principal Investigator's (PI) verification of participant eligibility for the study, the PI provided each participant with an individualized link to complete the survey. Participant verification entailed screening for bot responses utilizing a CAPTCHA and honeypot (i.e., hidden survey question to capture bots); IP

address geolocation screening to ensure responses were from the United States; screening of participants' self-reported age, ethnicity, religion, and location to meet study criteria; screening for duplicate entries based on email address and IP address; and screening of suspected falsified names (e.g., Vickie, Keith) and sham email addresses (e.g., email addresses including scrambled letters, long strings of numbers, or names differing from reported names).

Participants included 139 Arabs and 138 South Asians who were predominantly female (80.9%) and 21.81 years old (SD = 2.25) on average. Participants were primarily second-generation immigrants (i.e., at least one parent was born outside the U.S.; 74.4%), while 24.9% were first-generation immigrants (i.e., participant was born outside the U.S.) and 0.7% were third-generation immigrants (i.e., participant and both parents were born inside the U.S.; at least one grandparent was born outside the U.S.). Participants were geographically diverse, residing in 27 different states. See Table 1 for participant characteristics for the full sample and by ethnicity. There were no significant ethnic differences in mental health status, perceived discrimination, or Muslim group identification. However, Arab participants reported significantly higher levels of ethnic group identification compared with South Asian participants, $t(275) = -5.37$, $p < .001$. See Table 2 for descriptive statistics of study variables in full sample and by ethnicity.

Procedure

Data from the current study was collected as part of a larger survey developed for this dissertation. A 20- to 25-minute online survey was developed using Qualtrics. The survey assessed the following domains: demographic information, ethnic group identification, religious group identification, perceived discrimination, and mental health status (i.e., anxiety, depression, substance use, traumatic stress). Participants received a $15 electronic gift card upon completion of the survey.

Ethical Considerations

The mental health outcome measures utilized in this study were revised to remove any questions about suicidal ideation and behavior, given that inquiry of suicidal ideation requires a comprehensive risk follow-up protocol to ensure participants' safety that was not feasible in the current study. Given the sensitive nature of this study, all participants were provided mental health resources after completion of the survey.

Measures

Demographics

Background Questionnaire. Demographic data were collected from participants, including their age, gender, sexual orientation, relationship status, parent status, geographic location, race/ethnicity, immigrant generational status, religious identification, educational level, and profession. For the current study, gender and race/ethnicity were included as covariates. See Appendix D.1 for Background Questionnaire.

Identity

Measure of In-Group Identification (Leach et al., 2008). This measure consists of 14 items, rated on a 7-point Likert-type scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) assessing two general dimensions of in-group identification, each consisting of several distinct components. The group-level *self-definition* dimension comprises *individual self-stereotyping* (e.g., "I have a lot in common with the average [in-group] person") and *in-group homogeneity* (e.g., "[in-group] people have a lot in common with each other"). The group-level *self-investment* dimension comprises *solidarity* (e.g., "I feel a bond with [in-group]"), *satisfaction* (e.g., "I am glad to be [in-group]"), and *centrality* (e.g., "The fact that I am [in-group] is an important part of my identity"). Leach and colleagues (2008) found the scales to be

reliable and valid measures of distinct components of in-group identification across several groups.

For the current study, participants were asked to complete the measure responding about two different in-groups: their ethnic group (i.e., ethnicity as defined by the participant) and their religious group (i.e., Muslim). Participants' written responses to a question asking "How do you typically describe your ethnic or racial identity when asked?" auto-populated for questions about their ethnic group identification. While some participants only wrote "Arab" (22.3% of Arab participants) or "South Asian / Desi" (20.3% of South Asian participants), the majority of participants wrote either their country of origin or a combination of Arab or South Asian with their country of origin. The most common ethnicity for Arab participants was Palestinian (44.6% of Arab participants), while the most common for South Asian participants was Pakistani (54.3% of South Asian participants). Responses for each subscale's items were averaged to yield subscale scores, and responses across all 14 items were averaged to yield total group identification scores for each group identity. In the current sample, this measure was found to have excellent internal consistency for both Muslim group identification (Cronbach's alpha = .92) and ethnic group identification (Cronbach's alpha = .94). See Appendix D.2 for this measure.

Discrimination

Everyday Discrimination Scale (EDS; Williams et al., 1997). The EDS is a widely used brief measure of experiences of daily discrimination or unfair treatment. Participants are first asked to rate the frequency of experiencing nine discriminatory events (e.g., "You are treated with less courtesy than other people," "You are threatened or harassed"), on a 6-point Likert-type scale ranging from 0 (*Never*) to 5 (*Almost everyday*). These nine items are summed

to yield a total score. The EDS has been shown to have acceptable internal consistency, reliability, and validity (Clark et al., 2004; Williams et al., 1997) across a range of racial/ethnic groups (Gonzales et al., 2016; Kim et al., 2014). In the current sample, this scale was found to have excellent internal consistency (Cronbach's alpha = .92). In the current study, the EDS total score was used as a predictor of mental health symptoms to identify discrimination as a risk factor. Additionally, the EDS total score was used in moderation analyses to examine the impact of group identification on the discrimination—mental health pathway. See Appendix D.5 for this measure.

State- and Nation-Level Discrimination (Schildkraut et al., 2019). In order to assess participants' perceptions of state- and nation-level discrimination against their ethnic group and religious group, participants were asked two questions about the extent of current state-level discrimination in their state against their racial/ethnic group ("How much discrimination is there in [your state] today against your racial/ethnic group?") and against Muslims ("How much discrimination is there in [your state] today against Muslims?"). Participants were also asked the same two questions about the extent of discrimination in the U.S. against their racial/ethnic group and against Muslims. Participants rated their perceptions of the amount of perceived discrimination on a 5-point Likert-type scale ranging from 1 (*None at all*) to 5 (*A great deal*). These questions are face valid, and the state/nation-level racial/ethnic discrimination items have been used in prior research with Latinx populations (Schildkraut et al., 2019). The two state discrimination items were summed to produce a total state discrimination score, with good internal consistency (Cronbach's alpha = .82). The two national discrimination items were summed to produce a total national discrimination score, with acceptable internal consistency (Cronbach's alpha = .71). In the current study, these total scores were used as predictors of

participants' mental health symptoms to identify different types of discrimination as a risk factor, in order to differentiate the effects of individual-level, state-level, and nation-level discrimination. See Appendix D.6 for this measure.

Mental Health Status

Patient Health Questionnaire for Adolescents (PHQ-A; Johnson et al., 2002). The PHQ-A is adapted from the PHQ-9, a brief measure of depression symptom severity for adults (Kroenke et al., 2001), to be suitable for adolescents. Both the PHQ-9 (Kroenke et al., 2001) and PHQ-A have been found to have acceptable validity, reliability, sensitivity, and specificity (Johnson et al., 2002). For the current study, the eight major depressive disorder and dysthymic disorder items from the PHQ-A were used to assess depression symptom severity, but the suicide-related questions were removed. Participants were asked to rate the frequency of symptoms over the past two weeks on a 4-point Likert-type scale, ranging from 0 (*Not at all*) to 3 (*Nearly every day*). Participants were then asked one yes/no question about depression symptoms over the past year. If participants endorsed any symptoms, they were then asked to rate the degree of difficulty in doing work, taking care of things at home, or getting along with other people due to symptoms, on a 4-point Likert-type scale, from 0 (*Not difficult at all*) to 3 *(Extremely difficult*). The eight symptom frequency scores are summed to yield a total score. Research suggests that removal of the suicide items has only a minor effect on scoring and that the same scoring thresholds may be used as the full PHQ-9 (Kroenke et al., 2009). Total scores indicate mild depression (5-9), moderate depression (10-14; clinically significant cutoff = score of 10 or greater), moderately severe depression (15-19) or severe depression (20 or greater). See Appendix D.7 for this measure.

Generalized Anxiety Disorder Screener (GAD-7; Spitzer et al., 2006). The GAD-7 is

a 7-item measure for screening, diagnosing, monitoring, and measuring the severity of generalized anxiety symptoms. Participants are asked to rate the frequency of symptoms over the past two weeks on a 4-point Likert-type scale, ranging from 0 (*Not at all*) to 3 (*Nearly every day*). Scores are summed to yield a total score, with a clinical cutoff of a score of 10 or greater. Total scores indicate minimal anxiety (0-4), mild anxiety (5-9), moderate anxiety (10-14), or severe anxiety (15 or greater). If participants endorsed any symptoms, they were then asked to rate the degree of difficulty in doing work, taking care of things at home, or getting along with other people due to symptoms, on a 4-point Likert-type scale, from 0 (*Not difficult at all*) to 3 *(Extremely difficult*). The GAD-7 has been found to have good reliability and validity (Spitzer et al., 2006). See Appendix D.8 for this measure.

CRAFFT+N (Knight et al., 1999). The CRAFFT is a questionnaire to identify substance use, substance-related riding/driving risk, and substance use disorder (Knight et al., 1999) and is the most well-studied substance use screener for adolescents. The CRAFFT+N, which is used in the current study, is identical to the CRAFFT, with the exception that it also assesses frequency of tobacco and nicotine use in addition to alcohol, marijuana, and other substance use. The CRAFFT+N asks participants four questions to assess past-year frequency of use of alcohol, marijuana, tobacco or nicotine, or other substances to get high. If participants endorse any substance use over the past year, they are then asked six yes/no questions to assess domains affected by substance use (i.e., Car, Relax, Alone, Forget, Family/Friends, and Trouble). The number of these six items that are endorsed yields the participant's total score. Whereas the measure developers have validated the measure for 12- to 18-year-olds (Knight et al., 1999; Knight et al., 2002; Levy et al., 2004), other researchers have validated the measure for up to the age of 25 years old (Bagley et al., 2016). The measure has been shown to be valid for individuals

from diverse racial/ethnic and socioeconomic backgrounds (Cummins et al., 2003; Knight et al., 2002). A cutoff score of 2 has been found to have optimal sensitivity and specificity in identifying substance problems and DSM-IV drug or alcohol dependence for adolescents (Knight et al., 2002). A cutoff score of 3 has been recommended for 18-19 year olds (Kelly et al., 2004; Kelly et al., 2009), whereas a cutoff of 4 has been recommended for 18-25 year olds (Bagley et al., 2016). See Appendix D.9 for this measure.

Cumulative Trauma Scale – Short Form (CTS-S; Kira et al., 2008). The CTS-S (Kira et al., 2008) is a 32-item measure that assesses the occurrence and frequency of exposure to cumulative stressors and traumas on a 5-point Likert type scale, ranging from 0 (*Never*) to 4 (*Many times*). On the original measure, for each event endorsed, individuals are asked about their age at first exposure, and asked to the impact of the event is on a 7-point Likert-type scale, ranging from 1 (*Extremely positive*) to 7 (*Extremely negative*); however, these items were removed for the current study. The current study used a shortened version, revised to increase readability and ease of understanding, including the following subscales: *collective identity trauma* (e.g., social structural violence; trauma related to torture, poverty, and discrimination), *personal identity trauma* (e.g., trauma related to sexual abuse, physical abuse, and relationship rejection), *survival trauma* (e.g., car accidents, life threatening illnesses, and natural disasters), *secondary trauma* (e.g., witnessing a traumatic event occurring to others), and gender discrimination. Participants were asked to rate the frequency of exposure to 26 stressors or traumas. Scores were summed to yield a total trauma exposure score. The CTS-S has been shown to have good internal consistency (Cronbach's alpha = .85; Kira et al., 2008, Kira et al., 2013); good predictive validity for PTSD and cumulative trauma-related disorders (Kira et al., 2008); and acceptable reliability and validity across different cultural and clinical groups (e.g.,

Kira et al., 2008; Kira, Smith, Lewandowski, & Templin, 2010). See Appendix D.10 for this measure.

Muslim Race-Based Trauma Scale (MRTS). The MRTS was developed for the current study, to assess race-based traumatic stress that Muslim Americans may experience. Race-based traumatic stress has been defined as "(a) an emotional injury that is motivated by hate or fear of a person or group of people as a result of their race; (b) a racially motivated stressor that overwhelms a person's capacity to cope; (c) a racially motivated, interpersonal severe stressor that causes bodily harm or threatens one's life integrity; or (d) a severe interpersonal or institutional stressor motivated by racism that causes fear, helplessness, or horror" (Bryant-Davis & Ocampo, 2005; Carter, 2007). Due to the racialization of Islam, Muslims may experience race-based traumatic stress based on their religious, rather than racial / ethnic, identity (Joshi, 2006).

The scale comprises five items, with frequency of exposure to events rated on a 5-point Likert type scale, ranging from 0 (*Never*) to 4 (*Many times*). Items reflect backlash trauma that Muslim Americans may experience, or micro- or macro-level aggression as a response to acts of aggression committed by individuals associated with Islam (Kira et al., 2014). Items reflecting this concept include "I have experienced fear or anxiety of backlash following an attack committed by a Muslim or someone associated with Islam," "When there is a terrorist attack or mass shooting in the media, I feared that the perpetrator was Muslim," and "I have been afraid to be associated with negative Muslim stereotypes (e.g., terrorist)." Additionally, one item assesses experiences of witnessing trauma targeting Muslims: "I have experienced (in person, on the news, or online) an attack or aggressive action against a Muslim individual or community." The final item assesses experiences of trauma victimization due to being Muslim: "I have experienced (in person or online) an attack or aggressive action against me as a Muslim." Item

scores were summed to yield a total score. This measure was found to have good internal consistency (Cronbach's alpha = .80) in the current sample. See Appendix D.11 for this measure.

Primary Care – Post-Traumatic Stress Disorder (PTSD) Screen for DSM-5 (PC-PTSD-5; Prins et al., 2016). The PC-PTSD-5 is a brief, 5-item screen designed to identify individuals with probable PTSD. The original measure initially assesses whether participants have experienced any traumatic events. However, the current study utilized the CTS-S and the MRTS to assess traumatic exposure. If participants endorse any trauma exposure, they then answer five yes/no questions (from the PC-PTSD-5) about how the trauma may have affected them over the past month. PC-PTSD-5 scores are summed to yield a total score. A cut-off score of 3 has been shown to be optimally sensitive to detecting probable PTSD, whereas a cut-off score of 4 has been shown to be optimally efficient in detecting probable PTSD (Prins et al., 2016). In the current study, a cut-off score of 3 was utilized, and the measure was found to have good internal consistency (Cronbach's alpha = .81). In the current sample, 98.9% of participants endorsed some trauma exposure (i.e., 98.9% endorsed at least one item on the CTS-S, 94.6% endorsed at least one item on the MRTS) and completed this measure, with 72.3% of participants reporting at least one traumatic stress symptom in the past month. See Appendix D.12 for this measure.

Data Analytic Plan

Survey data were analyzed with SAS statistical software for Research Questions 1 and 2. For *Research Questions 1 and 2,* four separate four-step hierarchical regression analyses, one for each mental health outcome, was conducted. Such models have been utilized frequently in studies of risk and protective factors (e.g., Klein & Forehand, 2000; Prelow & Loukas, 2003). For each model, gender and race/ethnicity were included as covariates in Step 1. The risk factor,

perceived discrimination, was included in Step 2 (*Research Question 1*). Specifically, three levels of perceived discrimination were examined, including individual-level everyday discrimination, state-level discrimination, and nation-level discrimination. As resource factors are evidenced by a significant main effect on the outcome variable after controlling for the risk factor, the positive factors (religious and ethnic group identification) were entered simultaneously in Step 3 to determine the unique effect of each identity as a resource factor for mental health, over and above the effects of perceived discrimination and while controlling for the other identity (*Research Question 1*). As protective factors are evidenced by a significant interaction between the resource and risk factors, Step 4 included two-way interactions between religious identity X perceived everyday discrimination and ethnic identity X perceived everyday discrimination. Identity and individual-level everyday discrimination variables were centered in order to test these interactions. These interactions tested whether religious and ethnic identities buffered or exacerbated the negative effects of perceived everyday discrimination on mental health (*Research Question 2*). Finally, we conducted simple slope tests to interpret significant interactions. Interactions were plotted utilizing Stata Version 17.0 Basic Edition.

For *Research Questions 3 and 4*, *Mplus* (Muthén & Muthén, 2010) software was used to conduct latent profile analysis, and SAS software was used to conduct subsequent analyses. Latent profile analysis was utilized to identify meaningful groupings (i.e., latent profiles) of participants based on their dual religious and ethnic identities. Latent profiles are estimated from the observed continuous scores on indicator variables (Gibson, 1959), such that individuals belonging to the same profile are similar to one another based on their scores on the indicators (Tein et al., 2013). For the current study, 10 indicators were used, including the five subscale scores for religious group identification and five subscale scores for ethnic group identification,

from the Measure of In-Group Identification. Three latent profiles were initially estimated, as it was hypothesized that groupings may include (1) individuals who have high religious identity and high ethnic identity, (2) individuals who have low religious identity and low ethnic identity, (3) and individuals who are high on one identity and low on the other identity. In line with latent profile analysis procedures, two- and four-profile models were also tested to compare model fit, allowing examination of our alternative hypothesis (i.e., the data will produce four latent profiles). Following latent profile analysis, a multivariate analysis of covariance (MANCOVA) was conducted to examine profile membership as a predictor of each mental health outcome simultaneously (*Research Question 3*). Specific contrasts were examined to evaluate the competing hypotheses. To test the first hypothesis (i.e., strong identification with both religious and ethnic groups will be associated with the best mental health status), contrasts between individuals with high religious and high ethnic identification and the other latent profiles were planned. To test the alternative hypothesis (i.e., there will be no differences between individuals high on both identities and individuals who are high on only one identity, but individuals high on at least one identity will have better mental health than individuals low on both identities), contrasts between each profile pair were planned.

Finally, four separate linear regression analyses were conducted to examine the interaction of profile membership (with the high religious and high ethnic identification profile as the reference group) and perceived discrimination as a predictor of each mental health outcome, to determine whether unique combinations of religious and ethnic identities moderate the association of perceived individual-level discrimination with mental health (*Research Question 4*). Gender and race/ethnicity were included in all analyses as covariates.

Results

Research Question 1: Risk and Resource Factors

Gender, Ethnicity, and Mental Health

Gender significantly predicted depressive symptoms, $b = 3.68$, $SE = 1.01$, $p < .001$, anxiety symptoms, $b = 4.31$, $SE = .88$, $p < .001$, and traumatic stress symptoms, $b = .78$, $SE = .29$, $p = .007$, such that women reported significantly more symptoms than men (see Tables 3, 4, and 6). However, there were no significant gender differences found for substance use symptoms, $b = -0.20$, $SE = .22$, $p = .362$. Race / ethnicity did not significantly predict any mental health symptoms.

Discrimination as a Risk Factor

Perceived individual-level everyday discrimination was found to be a significant risk factor for most mental health status indicators, such that greater perceived everyday discrimination was associated with greater mental health symptoms. Specifically, perceived everyday discrimination positively predicted depressive symptoms, $b = .27$, $SE = .04$, $p < .001$ (see Table 3), anxiety symptoms, $b = .19$, $SE = .04$, $p < .001$ (see Table 4), and traumatic stress symptoms, $b = .06$, $SE = .01$, $p < .001$ (see Table 6). Perceived everyday discrimination had a trend-level association with substance use symptoms, $b = .02$, $SE = .01$, $p = .079$ (see Table 5). Perceived nation-level discrimination positively predicted anxiety symptoms only, $b = .48$, $SE = .24$, $p = .049$, while state-level discrimination did not predict any mental health symptoms.

Identity as a Resource Factor

Participants' Muslim group identification was found to be a resource factor for depression, anxiety, and substance use. In particular, greater Muslim identification was significantly associated with fewer depressive symptoms, $b = -1.57$, $SE = .45$, $p < .001$ (see Table 3), anxiety symptoms, $b = -0.84$, $SE = .40$, $p = .038$ (see Table 4), and substance use

symptoms, b = -.65, SE = .10, p < .001 (see Table 5), but was not associated with traumatic stress symptoms, b = -0.14, SE = .14, p = .298. Ethnic group identification did not significantly predict any measures of mental health status and was thus not found to be a resource factor for Muslim American young adults.

Research Question 2: Group Identification as a Moderator of the Discrimination-Mental Health Pathway

Upon examination of group identification as a protective or exacerbating factor for mental health, results indicated that Muslim group identification significantly moderated the relationship between perceived individual-level everyday discrimination and depressive symptoms, b = .11, SE = .05, p = .021 (see Table 3). Figure 1 illustrates that Muslim group identification exacerbated the association between perceived everyday discrimination on depressive symptoms. For those who reported low levels of Muslim group identification (Figure 1, blue line, centered value = -2), levels of everyday discrimination did not predict depressive symptoms (simple slope = .02, SE = .11, p = .828). However, for those who reported average (Figure 1, red line, centered value = 0) or high (Figure 2, green line, centered value = 2) levels of Muslim group identification, greater everyday discrimination was associated with more depressive symptoms (simple slope for average Muslim identification = .25, SE = .04, p < .001; simple slope for high Muslim identification = .47, SE = .11, p < .001). Thus, perceived everyday discrimination does not appear to be associated with depressive symptoms unless individuals hold a certain level of Muslim group identification. Muslim group identification did not moderate the relationship between perceived everyday discrimination and any other mental health indicators. Additionally, ethnic group identification did not have any moderating effects on the discrimination-mental health pathway.

Research Questions 3 and 4: Latent Profile Analysis of Religious and Ethnic Group Identification Patterns

Latent Profile Analysis was used as a person-centered analytic approach to identify groups of participants with similar patterns of dual religious and ethnic group identification. We estimated a 2- through 4-profile solution and relied on the following criteria to determine model fit in the latent profile analysis: Bayesian Information Criterion (BIC), sample-adjusted BIC, Log Likelihood, Vuong-Lo-Mendell-Rubin (VLMR) test, adjusted Lo-Mendell-Rubin (LMR) test, and bootstrapped likelihood ratio test (BLRT; Tein et al., 2013). Akaike Information Criterion (AIC) and entropy were not included as criterion indices given recent studies suggesting that these are not reliable indicators of model fit (Tein et al., 2013). As shown in Table 7, on most indicators, a 3-profile solution appeared to have better model fit than a 2-profile solution. While a 4-profile solution had better model fit across most indicators, compared with a 3-profile solution, the 4-profile solution obscured conceptual distinguishability and produced profiles with too few participants (i.e., one profile contained only 7% of the sample). Thus, the more parsimonious and conceptually clear 3-profile solution was selected (Masyn, 2012).

As shown in Figure 2, profiles were consistent with a "high Muslim identification / high ethnic identification" group (58.8% of the sample), a "high Muslim identification / low ethnic identification" group (18.7% of the sample), and a "low Muslim identification / high ethnic identification" group (22.4% of the sample). This pattern was inconsistent with our hypothesis that a group of individuals who were low on both identities would emerge. Next, profile memberships obtained from the final latent 3-profile solution were assigned to each participant based on their most likely profile membership (Clark & Muthén, 2010).

Profile Membership as a Predictor of Mental Health Status

To address Research Question 3, participants' profile membership was examined as a predictor of mental health status, with individuals with high identification with both groups serving as the reference group to test our first hypothesis (i.e., strong identification with both religious and ethnic groups will be associated with the best mental health status). As shown in Table 8, the profile of "low Muslim identification / high ethnic identification" significantly predicted depressive symptoms, anxiety symptoms, and substance use symptoms. Specifically, compared with individuals who highly identified with both their religious and ethnic groups, individuals who had low Muslim identification but high identification with their ethnic group reported more depressive symptoms, $b = 2.39$, $SE = 0.98$, $p = .016$, more anxiety symptoms, $b = 1.72$, $SE = .86$, $p = .046$, and more substance use symptoms, $b = .99$, $SE = .21$, $p < .001$. Compared with the "high Muslim identification / high ethnic identification" group, participants who belonged to the "high Muslim identification / low ethnic identification" group did not have significantly different levels of mental health symptoms in any domain. Thus, our first hypothesis was partially supported, with high identification with both groups showing benefits compared to the "low Muslim identification / high ethnic identification" group but not compared to the "high Muslim identification / low ethnic identification" group.

Our alternative hypothesis proposed that there would be no differences between individuals high on both identities and individuals who are high on only one identity, but individuals high on at least one identity would have better mental health than individuals low on both identities. Given that the latent profile analysis did not yield the hypothesized profiles (i.e., there was no "low Muslim identification / low ethnic identification" group), different planned contrasts were conducted from those originally planned. Specific contrasts revealed that individuals in the "low Muslim identification / high ethnic identification" group reported

significantly more depressive symptoms, $b = 2.66$, $SE = 1.23$, $p = .032$, and substance use symptoms, $b = .63$, $SE = .26$, $p = .016$, than individuals belonging to the "high Muslim identification / low ethnic identification" group.

Profile Membership as a Moderator of the Discrimination-Mental Health Pathway

To address Research Question 4, profile membership was examined as a moderator of the discrimination-mental health pathway to identify potential buffering or exacerbating effects of multiple group identification. As shown in Table 9, using the "high Muslim identification / high ethnic identification" profile as a reference group, there were no significant interactions between profile membership and perceived everyday discrimination, indicating that profile membership did not moderate the relationship between perceived discrimination and mental health status.

Discussion

The current study utilized a risk and resilience framework to identify risk, resource, and protective factors for mental health among Muslim American young adults, with specific examination of intergroup factors (i.e., perceived discrimination) and individual factors (i.e., group identification). Consistent with the extant literature, perceived individual-level everyday discrimination served as a risk factor for numerous mental health domains (i.e., depression, anxiety, and traumatic stress). However, everyday discrimination was not a risk factor for substance use. Notably, perceived state-level discrimination was not a risk factor for any mental health domain, and perceived nation-level discrimination was only a risk factor for anxiety. These findings highlight that individuals' direct experiences with discrimination appear to hold more significance for mental health than their perceptions of societal discrimination against their in-group.

Examination of group identification as a resource factor suggested that, for Muslim

American young adults, religious group identification serves as a resource factor for depression, anxiety, and substance use, but not for traumatic stress. However, ethnic group identification did not serve as a resource factor for any mental health indicator. This finding was unexpected given the previous literature pointing to greater ethnic social identity consistently being linked to positive psychological outcomes (e.g., Ahmed et al., 2011; Greig, 2003; Yasui et al., 2004). Given that the current study examined clinical outcomes rather than overall psychological well-being, ethnic group identification may not be as predictive of mental health symptoms, as suggested by Smith and Silva (2011). Moreover, for Muslim Americans, religious group identity appears to be a stronger predictor of mental health than ethnic group identity, underscoring the need to examine individuals' multiple social identities, expanding beyond ethnic identity. Religious identity may offer unique benefits for mental health that are not provided by other social identities (e.g., Ysseldyk et al., 2010), and for Muslim Americans, religious identity may be more salient given the racialization of Islam and the subsequent emphasis of Muslim identity over ethnic identity for Muslim Americans in American society (Joshi, 2006).

In regard to buffering versus exacerbating effects of group identification on the discrimination-mental health pathway, religious group identification exacerbated the negative impacts of perceived everyday discrimination on depressive symptoms, which contradicts the conclusion that Muslim identification might confer protection against the effects of unfair treatment. Specifically, at low levels of Muslim group identification, perceived everyday discrimination was not associated with depressive symptoms, but at average or high levels of Muslim group identification, greater perceived discrimination was associated with greater depressive symptoms. These findings differ from previous studies that found that high, but not moderate, levels of group identification may exacerbate the burden of discrimination (Woo et al.,

2019). Our finding of religious group identification as both a resource factor and exacerbating factor aligns with a past meta-analysis that found mixed evidence for social identity having both buffering and exacerbating effects on the discrimination-mental health pathway (Pascoe & Richman, 2009). However, the group identification measure used in the current study (i.e., Measure of In-Group Identification; Leach et al., 2008) was not included in Pascoe and Richman's (2009) meta-analysis and includes several distinct constructs. Whereas the Measure of In-Group Identification measures the identity constructs of solidarity, centrality, and satisfaction, similar to the measures included in the meta-analysis, it also measures individual self-stereotyping (e.g., how similar one is to group members) and in-group homogeneity (e.g., how similar group members are to one another), which were not represented in the meta-analysis. These additional constructs may have little relation to mental health outcomes, relative to the more common and individual-focused constructs of solidarity, satisfaction, and centrality.

Overall, our findings suggest that religious identification is a general psychological resource factor for Muslim Americans for most indicators of mental health, but in the context of discrimination, religious identification may act as a liability, worsening the impact of discrimination on depression symptoms. Notably, across most analyses, Muslim group identification served as a resource factor, and exacerbation effects were found in only one analysis. Exacerbation effects may be explained by rejection sensitivity theory, which posits that individuals who highly identify with a group may be more sensitive to rejection based on their group membership because they are more likely to identify and invest in that group (Downey & Feldman, 1996). This theory also suggests that highly identified individuals become more rejection sensitive in the context of repeated discrimination (Yoo & Lee, 2008). Moreover, prior studies have found that highly-identified group members often do not separate their personal self

from the collective self; thus, they may be more likely to personalize the threat of discrimination, lowering self-esteem and increasing depressed mood (McCoy & Major, 2003). For Muslim Americans, moderately- to highly-identified individuals may interpret discrimination as an attack on their core self, whereas those who report lower levels of identification may be able to separate their core self from the discrimination they experience, resulting in a lesser impact of discrimination on depressive symptoms.

One of the key contributions of the current study was to move beyond examining identity dimensions in isolation to examine dual identity processes for individuals belonging to two minoritized groups. In order to quantitatively examine intersectionality, this study utilized Latent Profile Analysis to examine individuals' dual identification with both their religious group and ethnic group. In the current sample of Muslim American young adults, the majority (58.8%) reported identifying highly with both the Muslim community and their ethnic group, while two smaller similarly sized groups fit a "low Muslim identification / high ethnic identification" (22.4%) and a "high Muslim identification / low ethnic identification" (18.7%) profile. A group of individuals who reported low levels of identification with both their religious and ethnic group did not emerge. The lack of a group of individuals with low levels of identification with both groups is likely a result of selection bias, given that participants volunteered to complete the survey for young adults identifying as Muslim and Arab or South Asian. Individuals with low levels of identification with both groups were less likely to be affiliated with the study recruitment sources, warranting a need for a larger survey with more inclusive recruitment practices to capture this theoretically important group in future research. Investigation of intersectional identities profile membership corroborated our findings of Muslim group identification, but not ethnic group identification, as a resource factor for mental health.

Compared with individuals with high Muslim and high ethnic identification, participants with low Muslim and high ethnic identification reported significantly more depression, anxiety, and substance use symptoms. This latter group of participants also reported significantly more depression and substance use symptoms than individuals with high Muslim and low ethnic identification. Upon examination of intersectional identities as moderators of the discrimination-mental health pathway, no buffering or exacerbating effects were found, suggesting that, for this sample, patterns of group identification did not significantly impact the association between perceived discrimination and mental health status.

Overall, our key findings suggest that, for Muslim American young adults, Muslim group identification was overall a resource factor for mental health and mostly served as a positive determinant of mental health. On the other hand, ethnic group identification was not a salient determinant for this population, diverging from previous research on ethnic identity as a prominent resource factor for mental health. Past studies have theorized that, for second generation immigrants, ethnic identity may be subsumed by religious identity, which may lead to greater impacts of religious identity, over ethnic identity, for mental health. However, there appear to be differences in identity salience across racial / ethnic groups. For example, racial / ethnic identity may be more salient for individuals of African descent, while religious identity may be more salient for Muslims of any ethnic background (Platt, 2014). Further, studies found that British Pakistani Muslims endorsed greater salience of religious identity over ethnic identity. Explanations for this finding, grounded in qualitative research, include the notion that ethnic identity is limited to a particular place and its people, whereas Islam has universal relevance, orienting Muslims' behaviors in all domains of life and requiring a conscious and explicit commitment. On the other hand, ethnic identity may be experienced as more peripheral, having

an impact on individuals' experiences but not in an all-encompassing manner. Additionally, whereas ethnic identity boundaries are becoming increasingly permeable, religious boundaries remain more rigid, clear-cut, and pervasive, contributing to the salience of religious identity (Jacobson, 2010).

Limitations

It is important to acknowledge several limitations of this study. First, although this study included a sample comprised of multiple ethnic groups, the generalizability of findings is limited by the cultural groups represented and the inclusion of only Muslim Americans. Thus, generalization to other ethnic groups and religious groups should be made with caution. Additionally, many participants rated themselves as having high Muslim identification and ethnic group identification, suggesting that this sample may not be representative of groups with low levels of identification with both groups. This limitation may be reflective of the limited recruitment sources used in the current study. Specifically, many of the recruitment sources centered Muslim identity, as organizations or platforms serving Muslims were used for recruitment, while some recruitment sources centered Arab identity. No recruitment sources specifically centered South Asian identity, which may partially explain why South Asian participants reported lower ethnic identification than Arab participants. Future research would benefit from utilizing more diverse recruitment sources that may include individuals with low Muslim or low ethnic identification. Furthermore, these data were collected within the context of the COVID-19 pandemic, which has had profound impacts on individuals' daily lives and mental health (Pfefferbaum & North, 2020). Given the timing and context of data collection, the levels of mental health symptoms for the current sample may differ from levels prior to the pandemic, and the cross-sectional nature of the survey precludes the ability to observe changes in mental

health over time. Another limitation is that data were not collected about participants' American group identification, limiting our knowledge about participants' acculturation and bicultural American and national identities. Information about additional group identifications could provide further insight into the experiences of individuals belonging to multiple minority groups and allow us to have a more nuanced understanding of their intersectional identities. Lastly, the current study did not consider separately different types of everyday discrimination (e.g., specific discrimination due to race, religion, gender, and other identities) and did not examine state- and nation-level discrimination when analyzing moderating effects of group identification on the discrimination-mental health pathway. Because we did not account for participants' perceptions of the source or reason for discrimination, we cannot draw connections between participants' identities and discrimination specifically based on those identities. Discrimination may be based on participants' other identities that we did not measure, rather than on their ethnic and religious identities, leading our interpretations based on rejection sensitivity theory to be made with caution. Further, while we assessed participants' perceptions of state- and nation-level discrimination against their ethnic and religious group, direct comparisons to individual-level discrimination cannot be made given that individual-level discrimination based on ethnicity and religion were not specifically assessed.

Notwithstanding these limitations, this study has several strengths and addressed important questions about intersectionality and the role of dual group identification for mental health in the context of multiple minority identities. First, this study built upon previous minority mental health research to investigate mental health in the context of multiple minority identities, rather than a single minority identity, and to examine mental health in the context of a marginalized religious identity, which has previously received little attention. The unique context

of the study allowed for investigation of dual ethnic and religious group identification. This was one of the first studies that examined intersectionality quantitatively, utilizing Latent Profile Analysis, to investigate the association between multiple identities and mental health status. This study also provides further insight into mental health among Muslim Americans, building on the extant literature to better understand intersectional identities for Muslim Americans as well as the nuanced relationship between perceived discrimination and identity. Additionally, the sample in the current study represents a geographically diverse sample. When investigating experiences of discrimination, geographic diversity is especially critical given the geographic differences in sociopolitical climate and intergroup experiences. Finally, this study utilized a socio-ecological approach to examine discrimination as a risk factor, examining not only personal everyday discrimination but also perceptions of state-level and nation-level discrimination.

Future Directions

Given the study limitations, future researchers should examine intersectional identities among a sample of diverse ethnic and religious groups to increase generalizability of findings. Additionally, research on Muslim American mental health should include a larger and more inclusive sample of Muslim Americans from a wide range of recruitment sources in order to capture the experiences of Muslim Americans who have low levels of Muslim group and ethnic group identification. Furthermore, future longitudinal research would be beneficial to better understand the underlying mechanisms of mental health and the impact of discrimination and group identification on mental health over time.

Tables and Figures

Table 1

Sample Characteristics in Full Sample and by Ethnicity

Characteristic	**Full Sample** (*N* = 277) *M(SD) or n(%)*	**Arab** (*n* = 139) *M(SD) or n(%)*	**South Asian** (*n* = 138) *M(SD) or n(%)*
Age	21.81 (2.25)	21.67 (2.27)	21.96 (2.23)
Gender			
Female	224 (80.9%)	115 (82.7%)	109 (79.0%)
Male	51 (18.4%)	24 (17.3%)	27 (19.6%)
Genderqueer / Gender non-conforming	2 (0.7%)	0 (0.0%)	2 (1.4%)
Sexual Orientation			
Straight / Heterosexual	246 (88.8%)	127 (91.4%)	119 (86.2%)
Gay / Lesbian	3 (1.1%)	1 (0.7%)	2 (1.4)
Bisexual	12 (4.3%)	3 (2.2%)	9 (6.5%)
Queer	2 (0.7%)	0 (0.0%)	2 (1.4%)
Pansexual	1 (0.4%)	1 (0.7%)	0 (0.0%)
Questioning or Unsure	9 (3.2%)	5 (3.6%)	4 (2.9%)
Prefer Not to Disclose	4 (1.4%)	2 (1.4%)	2 (1.4)
Generational Status			
1st generation	69 (24.9%)	37 (26.6%)	32 (23.2%)
2nd generation	206 (74.4%)	100 (71.9%)	106 (76.8%)
3rd generation	2 (0.7%)	2 (1.4%)	0 (0.0%)
Highest Education Level Completed			
High school or less	14 (5.1%)	6 (4.3%)	8 (5.8%)
Some college (no degree)	82 (29.6%)	45 (32.4%)	37 (26.8%)
Associate's degree	22 (7.9%)	14 (10.1%)	8 (5.8%)
Bachelor's degree	128 (46.2%)	57 (41.0%)	71 (51.4%)
Master's degree	26 (9.4%)	14 (10.1%)	12 (8.7%)
Doctoral degree	1 (0.4%)	0 (0.0%)	1 (0.7%)
Professional degree	4 (1.4)	3 (2.2%)	1 (0.7%)
Perceived Social Status (range 1-10)	5.60 (1.63)	5.59 (1.65)	5.61 (1.63)

Table 2

Descriptive Statistics of Study Variables in Full Sample and by Ethnicity

Variable	**Full Sample** (N = 277) *M(SD) or n(%)*	**Arab** (n = 139) *M(SD) or n(%)*	**South Asian** (n = 138) *M(SD) or n(%)*	*t or* X^2
Group Identification				
Muslim Identification	5.76 (0.85)	5.80 (0.85)	5.71 (0.86)	t = -0.83
Ethnic Identification	5.60 (0.98)	5.89 (0.91)	5.29 (0.95)	t = -5.37***
Perceived Discrimination				
Everyday Discrimination	14.13 (8.9)	14.37 (9.03)	13.90 (8.73)	t = -0.44
State Discrimination	6.21 (1.79)	6.32 (1.91)	6.10 (1.66)	t = -1.01
National Discrimination	7.84 (1.60)	8.04 (1.62)	7.65 (1.57)	t = -2.00
Trauma Exposure				
Cumulative Trauma (CTS)	12.29 (6.66)	12.79 (6.77)	11.78 (6.53)	t = -1.27
Muslim Race-Based Traumatic Stress (MRTS)	9.75 (3.95)	10.04 (4.02)	9.46 (3.87)	t = -1.21
Mental Health Status (Total scores)				
Depression (PHQ)	9.48 (6.65)	9.61 (6.36)	9.34 (6.95)	t = -0.34
Anxiety (GAD-7)	8.47 (5.94)	8.96 (6.01)	7.97 (5.85)	t = -1.39
Substance Use (CRAFFT-N)	0.81 (1.41)	0.71 (1.25)	0.91 (1.54)	t = 1.19
Traumatic Stress (PC-PTSD-5)	2.32 (1.87)	2.49 (1.92)	2.15 (1.81)	t = -1.48
Mental Health Status (Clinically elevated)				
Depression (PHQ)[a]	120 (43.3%)	61 (43.9%)	59 (42.8%)	X^2 = 0.04
Anxiety (GAD-7)[b]	106 (38.3%)	59 (42.4%)	47 (34.1%)	X^2 = 2.06
Substance Use (CRAFFT-N)[c]	22 (7.9%)	7 (5.0%)	15 (10.9%)	X^2 = 3.22$^+$
Traumatic Stress (PC-PTSD-5)[d]	133 (48.0%)	71 (51.1%)	62 (44.9%)	X^2 = 1.05

Note. [a] PHQ-9 clinical cutoff =10 (Kroenke at al., 2009); [b] GAD-7 clinical cutoff = 10 (Spitzer et al., 2006); [c] CRAFFT-N clinical cutoff = 4 (Bagley et al., 2016); [d] PC-PTSD-5 clinical cutoff = 3 (Prins et al., 2016)

***$p < .001$, $^+p < .10$

Table 3

Risk, Resource, and Protective / Exacerbating Factors Predicting Depressive Symptoms (PHQ-9)

	Step 1: Covariates		Step 2: Discrimination as Risk Factor		Step 3: Identity as Resource Factor		Step 4: Identity as Protective / Exacerbating Factor	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	6.33***	.99	-0.91	1.92	5.25	3.29	2.69	1.97
Gender (Female)	3.68***	1.01	3.40***	.94	3.05**	.93	2.90**	.92
Ethnicity (Arab)	0.22	.79	-0.16	.73	-0.37	.75	-0.40	.75
Perceived Everyday Discrimination	-	-	0.27***	.04	0.24***	.04	0.25***	.04
Perceived State Discrimination	-	-	0.11	.25	0.12	.24	0.09	.24
Perceived National Discrimination	-	-	0.41	.28	0.49^{+}	.27	0.53^{+}	.27
Muslim Identification	-	-	-	-	-1.57***	.45	-1.66***	.45
Ethnic Identification	-	-	-	-	0.52	.41	0.65	.41
Muslim ID X Everyday Discrimination	-	-	-	-	-	-	0.11*	.05
Ethnic ID X Everyday Discrimination	-	-	-	-	-	-	-0.03	.04
R^2	.05		.21		.25		.26	
ΔR^2	-		.16		.04		.02	
F / ΔF	6.68**		18.29***		6.05**		2.89^{+}	

Note. * $p < .05$, ** $p < .01$, ***$p < .001$, $^{+}p < .10$

Table 4

Risk, Resource, and Protective / Exacerbating Factors Predicting Anxiety Symptoms (GAD-7)

	Step 1: Covariates		Step 2: Discrimination as Risk Factor		Step 3: Identity as Resource Factor		Step 4: Identity as Protective / Exacerbating Factor	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	4.49***	.86	-2.84^{+}	1.69	-0.31	2.93	-0.34	2.97
Gender (Female)	4.31***	.88	3.93***	.83	3.74***	.83	3.66***	.83
Ethnicity (Arab)	0.91	.69	0.53	.64	0.33	.67	0.32	.68
Perceived Everyday Discrimination	-	-	0.19***	.04	0.18***	.04	0.18***	.04
Perceived State Discrimination	-	-	0.22	.22	0.23	.22	0.21	.22
Perceived National Discrimination	-	-	0.48*	.24	0.51*	.24	0.53*	.24
Muslim Identification	-	-	-	-	-0.84*	.40	-0.89*	.41
Ethnic Identification	-	-	-	-	0.43	.37	0.49	.37
Muslim ID X Everyday Discrimination	-	-	-	-	-	-	0.06	.04
Ethnic ID X Everyday Discrimination	-	-	-	-	-	-	-0.02	.04
R^2	.09		.23		.24		.25	
ΔR^2	-		.14		.01		.01	
F / ΔF	12.97***		16.38***		2.31		0.94	

Note. * $p < .05$, ***$p < .001$, $^{+}p < .10$

Table 5

Risk, Resource, and Protective / Exacerbating Factors Predicting Substance Use Symptoms (CRAFFT-N)

	Step 1: Covariates		Step 2: Discrimination as Risk Factor		Step 3: Identity as Resource Factor		Step 4: Identity as Protective / Exacerbating Factor	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	1.05***	.21	0.56	.45	3.82***	.72	3.94***	.73
Gender (Female)	-0.20	.22	-0.23	.22	-0.36^{+}	.20	-0.38	.21
Ethnicity (Arab)	-0.20	.17	-0.22	.17	-0.23	.17	-0.20	.18
Perceived Everyday Discrimination	-	-	0.02^{+}	.01	0.01	.01	0.01	.01
Perceived State Discrimination	-	-	0.05	.06	0.04	.05	0.05	.05
Perceived National Discrimination	-	-	-0.001	.06	0.04	.06	0.04	.06
Muslim Identification	-	-	-	-	-0.65***	.10	-0.66***	.10
Ethnic Identification	-	-	-	-	0.07	.09	0.06	.09
Muslim ID X Everyday Discrimination	-	-	-	-	-	-	-0.004	.01
Ethnic ID X Everyday Discrimination	-	-	-	-	-	-	-0.01	.01
R^2	.01		.03		.17		.17	
ΔR^2	-		.02		.14		.004	
F / ΔF	1.13		1.83		22.22***		.63	

Note. ***$p < .001$, $^{+}p < .10$

Table 6

Risk, Resource, and Protective / Exacerbating Factors Predicting Traumatic Stress Symptoms (PC-PTSD-5)

	Step 1: Covariates		Step 2: Discrimination as Risk Factor		Step 3: Identity as Resource Factor		Step 4: Identity as Protective / Exacerbating Factor	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	1.50***	.28	0.001	.58	0.15	1.00	0.08	1.01
Gender (Female)	0.78**	.29	0.68*	.28	0.65*	.28	0.65*	.28
Ethnicity (Arab)	0.30	.23	0.23	.22	0.16	.23	0.15	.23
Perceived Everyday Discrimination	-	-	0.06***	.01	0.05***	.01	0.05***	.01
Perceived State Discrimination	-	-	0.06	.07	0.07	.07	0.06	.08
Perceived National Discrimination	-	-	0.06	.08	0.06	.08	0.07	.08
Muslim Identification	-	-	-	-	-0.14	.14	-0.14	.14
Ethnic Identification	-	-	-	-	0.13	.12	0.14	.13
Muslim ID X Everyday Discrimination	-	-	-	-	-	-	0.003	.02
Ethnic ID X Everyday Discrimination	-	-	-	-	-	-	0.01	.01
R^2	.03		.13		.13		.13	
ΔR^2	-		.09		.01		.001	
F / ΔF	4.69*		9.15***		.83		.11	

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

Table 7

Model Fit Indices for Latent Profile Analysis

Model	npar	LL	BIC	saBIC	VLMR(*p)*	LMR(*p*)	BLRT(*p*)	Proportion in each class
2-profile	31	-3967.00	8108.34	8010.04	<.001	<.001	<.001	.32/.68
3-profile	**42**	**-3782.60**	**7801.41**	**7668.23**	**.141**	**.144**	**<.001**	**.22/.19 /.59**
4-profile	53	-3702.05	7702.17	7534.12	.099	.102	<.001	.07/.17/.20/.56

Note. npar = number of parameters estimated; LL = Log Likelihood; BIC = Baysesian Information Criterion; saBIC = sample-adjusted BIC; LMR(p) = *p*-value for the Vuong-Lo-Mendell-Rubin test; LMR(p) = *p*-value for the adjusted Lo-Mendell-Rubin test; BLRT(p) = *p*-value for the bootstrapped likelihood ratio test. Boldface indicates the solution that was selected as the best fitting model. For LL, BIC, and saBIC indices, a lower absolute value represents better fit. A significant *p*-value for VLMR, LMR, and BLRT indicates that the model with k profiles is better fitting than a model with k-1 profiles.

Results indicate that a 3-profile model offers a better fit compared with a 2-profile model when examining LL, BIC, saBIC, and BLRT indices. While a 4-profile model offers a better fit compared with a 3-profile model when examining LL, BIC, saBIC, and BLRT indices, it reduced conceptual distinguishability and produced profiles with too few participants. Thus, a 3-profile model was selected as the best fitting model.

Table 8

Profile Membership as a Predictor of Mental Health Status

	PHQ-9		GAD-7		CRAFFT-N		PC-PTSD-5	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	5.96***	1.04	4.22***	.91	0.76***	.22	1.40***	.30
Gender (Female)	3.53***	1.00	4.18***	.88	-0.23	.21	0.79**	.29
Ethnicity (Arab)	0.45	.79	1.12	.69	-0.11	.17	0.34	.23
Profile 1 (Low Muslim / High Ethnic)[a]	2.39*	.98	1.72*	.86	0.99***	.21	0.40	.28
Profile 2 (High Muslim / Low Ethnic)[a]	-0.27	1.04	-0.21	.91	0.36^{+}	.22	0.05	.30
Contrast Profile 1 vs. Profile 2	2.66*	1.23	1.93^{+}	1.08	0.63*	.26	.35	.35

Note. [a] Reference group = High Muslim / High Ethnic.
* $p < .05$, ** $p < .01$, ***$p < .001$, $^{+}p < .10$

Table 9

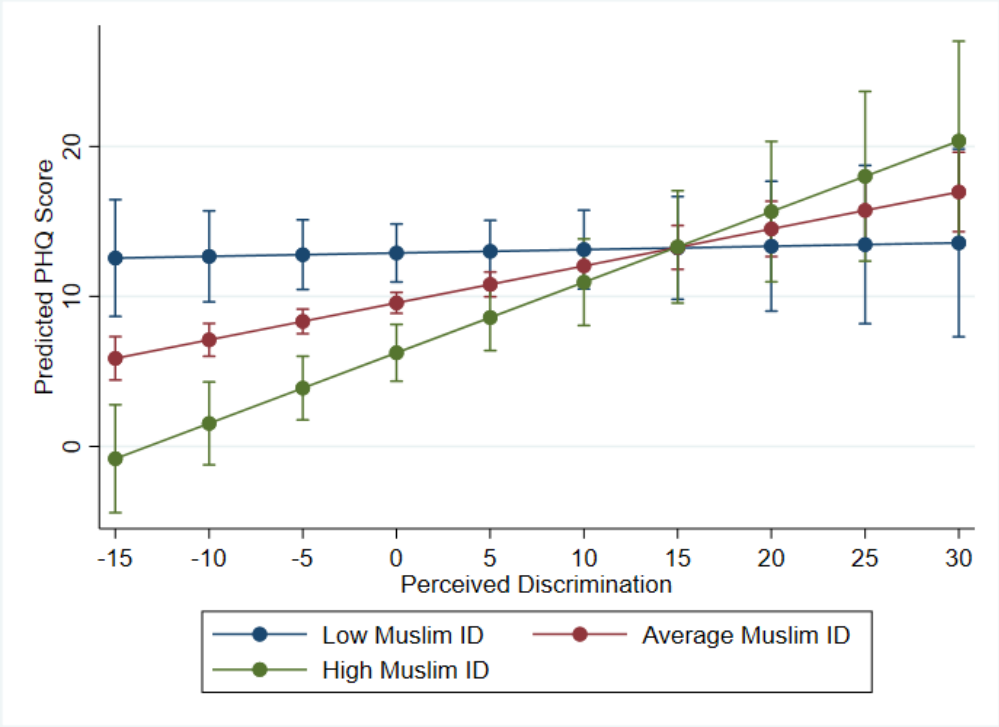
Profile Membership as a Moderator of the Discrimination-Mental Health Pathway

	PHQ-9		GAD-7		CRAFFT-N		PC-PTSD-5	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	6.30***	.96	4.47	.86	0.78***	.22	1.51***	.29
Gender (Female)	3.45***	.92	4.17***	.83	-0.24	.21	0.76*	.28
Ethnicity (Arab)	0.11	.73	0.79	.66	-0.13	.16	0.29	.22
Perceived Everyday Discrimination	0.29***	.05	0.23***	.05	0.01	.01	0.06***	.02
Profile 1 (Low Muslim / High Ethnic)[a]	1.95*	.92	1.30	.83	0.93***	.21	0.24	.28
Profile 2 (High Muslim / Low Ethnic)[a]	-0.60	.96	-0.43	.86	0.35	.22	-0.04	.29
Profile 1 X Perceived Discrimination[a]	-0.10	.10	-0.03	.09	0.02	.02	0.001	.03
Profile 2 X Perceived Discrimination[a]	0.11	.11	0.01	.10	0.005	.03	-0.01	.03

Note. [a] Reference group = High Muslim / High Ethnic.
* $p < .05$, *** $p < .001$, $^{+}p < .10$

Figure 1

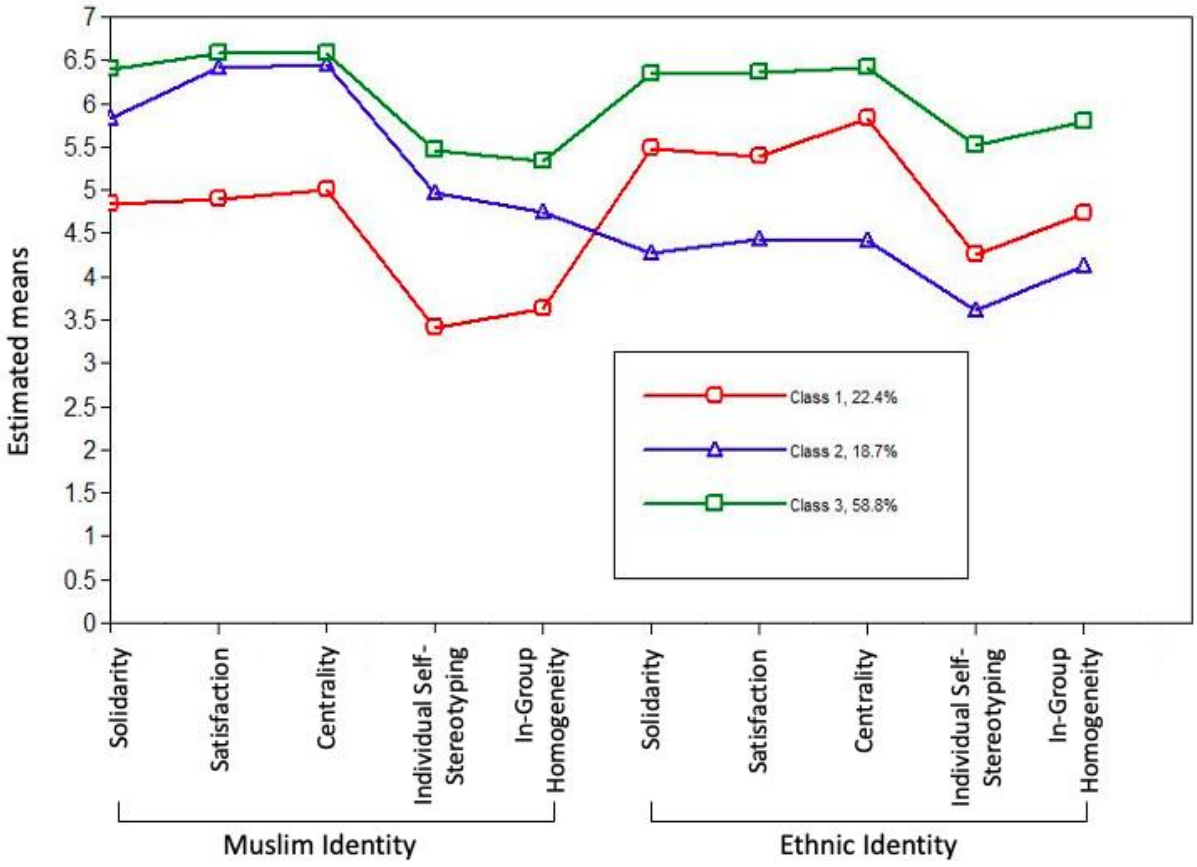
Muslim Group Identification as Moderator of Discrimination – Depression Pathway



Note. Lines represent varying levels of Muslim group identification, with group identification centered. Average Muslim ID represents centered value of 0, while Low Muslim ID represents centered value of -2 and High Muslim ID represents centered value of 2.

Figure 2

Latent Profile Analysis of Dual Muslim and Ethnic Group Identification



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CHAPTER 3:

Evaluating the Implications of Intra- and Inter-group Belonging for Mental Health Status: An Examination of Arab and South Asian Muslim American Young Adults

Abstract

Belonging has long been understood to be an essential human need and has consistently been shown to have significant consequences for mental health. Additionally, sense of belonging is believed to be critical to identity development, especially among adolescents and young adults. However, little is known about sense of belonging among individuals who must navigate multiple identities, or individuals who belong to multiple minority groups, who may experience diminished sense of belonging and difficulties with identity development. Muslim Americans must simultaneously navigate their religious, heritage cultural, and American cultural identities, which may appear to be at odds with one another. Investigation of such experiences may provide insight that can inform mental health prevention and intervention efforts for minoritized groups. Utilizing the same cross-sectional survey design as Study 2, the current study addresses the following research questions: (1) To what extent do Arab and South Asian Muslim American young adults feel a sense of belonging in their families, the Muslim community, and American society? (2) How do experiences of racialization and marginalization relate to young adults' sense of belonging in their families, the Muslim community, and American society? (3) What context of belonging (i.e., family, Muslim community, American society) has the strongest independent association with mental health status (i.e., self-reported symptoms of depression, anxiety, substance use, and traumatic stress?) and (4) Does sense of belonging across multiple ecological contexts act as a psychological resource in an additive or compensatory manner? Results of the survey indicate that experiences of individual-level everyday discrimination were negatively associated with belonging in all contexts; however, perceived discrimination at the state- and nation-level were not associated with sense of belonging. Additionally, belonging in each context was uniquely associated with mental health status, with family belonging having the

most robust association with mental health symptoms. Furthermore, results supported both the additive and general compensatory models of belonging as a resource for mental health. Having a high sense of belonging in at least two contexts served as a protective threshold for mental health. Results highlight the importance of assessing sense of belonging across multiple contexts (rather than assessing global sense of belonging or belonging in a single context) in order to identify targets for community-based intervention.

Introduction

Social relatedness, and social networks and social support in particular, have received significant attention in psychological literature, as it is widely recognized that social relationships have important implications for physical and mental health (Berkman et al., 2000). Social networks offer individuals numerous types of support, including emotional support (e.g., understanding and value by others), instrumental support (e.g., access to resources), appraisal support (e.g., help in decision-making), and informational support (e.g., provision of advice or information; Weiss, 1974). Additionally, through provision of opportunities for social engagement, social networks define and reinforce individuals' social roles, which provide individuals a sense of value, belonging, and attachment (Berkman et al., 2000). Social roles also aid in the development of a coherent sense of identity and allow individuals to foster their social integration and connectedness (Berkman et al., 2000). The resulting attachment developed promotes a sense of security and self-esteem through adulthood (Bowlby, 1969), whereas a sense of value and belonging also have significant implications for psychosocial functioning.

Belonging and Mental Health

A particularly important component of social relatedness is sense of belonging, as belonging represents an individual's perceptions of their relationships and their psychological experiences within their social networks. Belonging has long been understood to be a basic human need, ranked third in Maslow's (1954) hierarchy of needs, and has been suggested to be critical to psychosocial functioning (Hagerty et al., 1992; Hagerty et al., 1996). In fact, given its psychological nature, sense of belonging has been suggested to be a more powerful predictor of mental health than the particular characteristics of individuals' social networks and social support (Antonucci & Israel, 1986; Choenarom et al., 2005; Hagerty & Williams, 1999), despite

receiving less attention in the psychological empirical literature.

Sense of belonging, generally, has been defined as a "sense of personal involvement in a social system so that persons feel themselves to be an indispensable and integral part of the system" (Anant, 1966). Hagerty and colleagues (1992) proposed that sense of belonging entails (1) feelings of being valued, needed and accepted, and (2) the experience of fitting in or being congruent with others in the social system. Hagerty and colleagues' (1992) model posits that the consequences of sense of belonging include psychological, social, spiritual, or physical involvement with significant implications for one's mental health. Sense of belonging and inclusion in one's group may provide security that one's needs will be met (Thoits, 2011); a sense of purpose, meaning and worth (Newman & Newman, 2001); as well as companionship, activities and reciprocal support (Thoits, 2011). The absence of belonging and companionship, often described as loneliness, contributes to anxiety and depression (Cacioppo et al., 2002; Hagerty et al., 1996). Indeed, multiple studies have shown low sense of belonging to be related to high levels of anxiety (Lee & Robbins, 1998), depression (Bailey & McLaren, 2005; Sargent et al., 2002), suicidal ideation (Bailey & McLaren, 2005), and increased health problems (Baumeister & Leary, 1995). Among adolescents, a sense of peer group belonging is negatively associated with both internalizing and externalizing problems (Newman et al., 2007). Thus, promotion of sense of belonging may offer a promising prevention and intervention target (Baskin et al., 2010; Eisenberg & Resnick, 2006; Hatzenbuehler, 2011; Loukas et al., 2010; McCallum & McLaren, 2010).

Belonging and Identity

In addition to its consequences for mental health, sense of belonging may also have a significant impact on identity development. When an individual experiences feelings of being

valued, accepted, and belonging to a group, this sense of belonging fosters the development of a social identity, wherein group membership becomes a core feature of self-identity (Tajfel & Turner, 1979). Adolescence is a critical developmental period in which individuals begin to form their identities and search for group membership and social connections, which shape sense of self (Newman & Newman, 2001; Overmier, 1990). This development continues into young adulthood across a distinct developmental period termed "emerging adulthood," often referring to ages 18 – 25. In this developmental period, individuals undergo significant demographic transitions, increasingly make independent decisions, and engage in distinct identity exploration across a number of domains, including interpersonal relationships and worldview (Arnett, 2000). Phinney (1990) highlighted that although individuals may identify as a member of a group, they may not have a strong sense of belonging to that group, warranting specific investigation into sense of belonging. As individuals mature and engage in more reflective thinking about their relationships and group identities, they are faced with the fit or lack of fit between their own needs, beliefs, and values and those of the groups they engage with (Newman & Newman, 2001). When an individual's sense of belonging is threatened (i.e., they no longer feel valued, needed and accepted, or they no longer experience fitting in or being congruent with others in the social system; Hagerty et al., 1996), their identity formation is subsequently threatened.

The Rejection-Identification Model

Social identity researchers have proposed several models explaining how intragroup and intergroup processes relate to identity formation, and how these constructs subsequently impact psychological well-being. Among these models, the rejection-identification model (Branscombe et al., 1999) has received significant support (Cronin et al., 2012; Giamo et al., 2012; Postmes & Branscombe, 2002; Ramos et al., 2011). The rejection-identification model posits that feelings of

rejection by one's in-group leads to less self-categorization as an in-group member and lower levels of group identification, which in turn leads to worse psychological well-being. On the other hand, feelings of rejection by one's out-group leads to greater self-categorization as an in-group member and higher levels of in-group identification, leading to greater well-being. The current study aims to expand upon this model to examine sense of belonging in the context of potential membership in multiple social identity groups pertinent to Muslim American young adults. Rather than rejection as a driver of identity centrality, sense of belonging may represent a key driver of self-categorization and resultant well-being.

Multiple Minority Identities and Belonging

Sense of belonging, identity development, and mental health status may be precarious among members of minority groups who face heightened social exclusion in hostile national contexts (Collier et al., 2013; Hatchel et al., 2017). However, a well-developed sense of belonging to a specific minoritized community may help buffer the negative effects of an otherwise marginalized minority status by providing a "cultural home," or a social context of shared meanings, values, and comfort (Vivero & Jenkins, 1999). However, individuals who simultaneously identify with multiple minority groups may not benefit from this protection to the extent that belonging and identification with any given group is weakened (Navarrette & Jenkins, 2011). Concepts such as belonging could be especially important to study among individuals who must negotiate multiple identities (AhnAllen et al., 2006; Houston, 1997; Kich, 1992; Navarrete & Jenkins, 2011; Vivero & Jenkins, 1999). For example, "individuals of mixed ethnic and/or cultural background living within a framework of experiences, feelings, and thoughts that do not belong to any single racial, ethnic, or cultural reference group" have been described as experiencing "cultural homelessness" (Vivero & Jenkins, 1999). Cultural homelessness may

involve being immersed in more than one culture from an early age and being faced with contradictory demands from those cultures without support for reconciling these contradictions (Vivero & Jenkins, 1999). Inconsistent frames of reference for social norms may be managed through cultural codeswitching to modify identity and behaviors to accommodate themselves to different cultural contexts to maximize their sense of belonging. Although individuals with strong bicultural identity integration appear to manage these demands fluently and without distress (Huynh et al., 2011), other multicultural individuals may experience their various identities as conflicting and incompatible, which may complicate their identity development and contribute to diminished sense of belonging (Navarrette & Jenkins, 2011).

Examining Belonging in Multiple Contexts

Using a socio-ecological approach, sense of belonging in multiple contexts can be examined to better understand risk and protective factors for mental health (Bronfenbrenner, 1989; Kia-Keating et al., 2011; Powers et al., 1989). Indeed, various ecological levels of social connectedness (e.g., to family, to peers) are key indicators of health risk behaviors and maladjustment, including emotional distress, suicidal ideation, violence, and substance use (Jose et al., 2012; Libbey et al., 2002; McGraw et al., 2008; Resnick et al., 1997). Bronfenbrenner (1989) posited that an individual's development occurs within multiple ecological contexts, and that individuals concurrently impact and are impacted by the multiple contexts in which they exist. Socio-ecological frameworks expand beyond investigation of *individual* factors (e.g., biological factors, demographic characteristics) to examine the *interpersonal* context (e.g., family environment, peer discrimination), *communal* context (e.g., community values and resources), and *societal* context (e.g., exclusionary policy, socio-political climate) in which individuals are embedded. For Muslim American young adults, examination of sense of

belonging in multiple contexts is relevant, including familial sense of belonging, communal sense of belonging, and societal sense of belonging.

Applying a Socio-Ecological Approach to Muslim American Young Adults

Examining sense of belonging among Arab and South Asian Muslim American young adults (ages 18 to 25) offers an opportunity to gain insight into the experiences of belonging and mental health for individuals with multiple minority identities. Muslim American young adults often hold dual minority religious and racial/ethnic identities, and often face the challenge of integrating multiple identities that may appear to be in conflict with one another, including their religious, heritage cultural, and American cultural identities (see General Introduction for detailed context of Muslims in America). Thus, these individuals must navigate how their multiple complex identities fit with their families, the Muslim community, and mainstream American society. In turn, this may lead individuals to develop dual identities (Ahmed & Ezzeddine, 2009) or engage in codeswitching, wherein they maintain a religious or cultural identity among their family or community members and maintain a separate American identity among individuals outside of their family or community, in an attempt to maximize their sense of belonging in each of these ecological contexts (Vivero & Jenkins, 1999). Utilization of a socio-ecological framework to examine belongingness in these various ecological contexts may shed light on complex intragroup and intergroup experiences of multicultural young adults with dual minority status, as well as the implications for mental health.

At an *interpersonal* level, Muslim American young adults may experience difficulties with their sense of belonging to their families. For example, young adults who hold cultural or religious identities that differ from their parents may experience intergenerational discord within their families (Ahmed & Ezzeddine, 2009; Asvat & Malcarne, 2008). Additionally, Muslim

American young adults navigate many of the same developmental issues as other young adults (e.g., alcohol or substance initiation, dating), but Muslim families often presume that these issues do not apply to Muslims due to religious expectations (Ahmed & Ezzeddine, 2009; Al-Mateen & Afzal, 2004). Such familial experiences may lead young adults to feel a lack of acceptance by their parents or a hindered sense of belonging to their families. At a *communal* level, Muslim American youth have reported limitations in the ability of Islamic centers and mosques to aid in their religious and spiritual development, given that these centers have little knowledge of the challenges facing young Muslim Americans (Ahmed & Akhter, 2006). Further, studies have found that young Muslim Americans often experience frustration with the Muslim community's difficulty in adapting Islam to the Western context and the Muslim community's isolation from American society (Ahmed & Akhter, 2006). This perceived separation may lead Muslim American young adults to feel disconnected from, and a lack of belonging to, the Muslim community. Finally, at a *societal* level, Muslim Americans typically hold both religious and racial/ethnic minority statuses that have incurred a heightened risk of discrimination following 9/11 and the 2016 presidential election. Given negative portrayals of Islam in the media (Considine, 2017), and an increasingly hostile sociopolitical climate which promotes the exclusion of Muslims from the United States (e.g., the Muslim Travel Ban legislation, increased Islamophobia; Ayoub & Beydoun, 2017), Muslim Americans may experience a decreased sense of belonging to mainstream American society.

There may also be individual differences in discrimination experiences and consequences for belonging as a function of visibility of group membership. Specifically, Muslim Americans who visibly appear Muslim and fit the Muslim prototype (e.g., women wearing headscarf, dark-skinned men with beards) may be more likely to experience discrimination and decreased sense

of national belonging, given findings that individuals who belong to minority religious groups and who demonstrate greater religious visibility report experiencing increased discrimination (Jasperse et al., 2011; Sirin & Katsiaficas, 2011). Arab Americans who are phenotypically closer to whiteness report experiencing less discrimination, but appear to be more negatively affected by discrimination, than those further from whiteness (Abdulrahim et al., 2012). These findings indicate the complexity of experiences within this community, and the need to account for Muslim prototypicality in understanding discrimination and belonging.

Thus, there is potential for some Muslim American young adults to struggle with developing a strong sense of belonging in any context, including with their family, Muslim community, and American society. These different contexts of belonging may be related to one another and yet they may also be differentially linked with mental health outcomes. For example, it may be presumed that sense of belonging to family and the Muslim community may be closely related, given that these two ecological contexts may represent Muslim American young adults' intragroup experiences, and there may be greater integration between these two contexts, especially for immigrant communities. In regard to the impact of belongingness on mental health, there may be several ways in which belonging in different contexts interact to influence mental health. First, belonging may function in an *additive* manner, such that the greater number of contexts in which an individual feels they belong, the better their mental health status will be. Second, belonging may function in a *specific compensatory* manner, such that one context of belonging may act as a primary determinant of mental health, regardless of other contexts of belonging. For example, compared with other contexts, sense of belonging to family may act as the greatest driver of mental health for Muslim American young adults, given the proximity and centrality of family to young adults in their daily lives. Muslim Americans' self-image, self-

esteem, security, and identity are all often evaluated on the basis of their familial relationships (Daneshpour, 1998). Relative to their family involvement, individuals may view their level of involvement in the Muslim community and mainstream American society as more discretionary and flexible, allowing young adults to more easily distance themselves from these groups and not incorporate the evaluation of individuals outside of their family into their self-concept. Thus, if a Muslim American young adult feels high sense of belonging to their family and low sense of belonging at the other ecological levels, they may still experience positive mental health outcomes. On the other hand, if a Muslim American young adult feels high sense of belonging in the Muslim community and American society, but low sense of belonging in their family, they may experience mental health problems. Thus, an individual may need to experience high levels of belongingness in one *specific* context, regardless of their belonging in other contexts, in order to achieve positive mental health outcomes.

Belonging may also influence mental health outcomes in a *general compensatory* manner, such that high sense of belonging in any one context may compensate for low sense of belonging in another context, in order to protect one's mental health. This perspective is consistent with the rejection-identification model (Branscombe et al., 1999), as intragroup belongingness (e.g., belonging to family) may compensate for low sense of belonging in other contexts (e.g., belonging to American society) resulting from experiences of marginalization. Alternatively, high sense of intergroup belonging (e.g., belonging to American society) may compensate for low intragroup belongingness (e.g., belonging to family or the Muslim community). Thus, an individual may only need to experience high levels of belonging in *any* one ecological context in order to achieve positive mental health outcomes. Given that extant studies on sense of belonging have predominantly focused on only one context of belonging,

there is little known about how differing levels of belonging in multiple contexts influence one another and interact to influence mental health outcomes, warranting further investigation of these questions.

The Current Study

The current study seeks to address the numerous gaps in the extant literature on understanding belonging and mental health among individuals who belong to multiple minority groups and who may experience threats to their belonging in different ecological contexts. The current study expands upon past research to examine young adults' multiple ecological contexts, rather than focusing on one context of belonging. Given Muslim American young adults' multiple minority identities, which are sources of both intergroup and intragroup conflict, these young adults may experience a lack of belonging in their families, the Muslim community, or American society. Moreover, for Muslim American young adults, sense of belonging is likely threatened especially due to their religious identity, as they experience both religious-based discrimination (Balkaya et al., 2019) and racial discrimination that is linked to the racialization of Islam (Joshi, 2006).

Thus, the current study seeks to examine the impact of sense of belonging on mental health status, utilizing a socio-ecological approach, through examination of Arab and South Asian Muslim American young adults (ages 18 to 25). The current study first aims to examine Muslim American young adults' belonging in multiple contexts. To achieve this aim, the current study addresses the following research questions: (1) To what extent do Arab and South Asian Muslim American young adults feel they belong in their families, the Muslim community, and American society? and (2) How do experiences of racialization and marginalization relate to young adults' sense of belonging in their families, the Muslim community, and American

society? Second, the current study aims to examine the relationship between multilevel sense of belonging and mental health status. To achieve this aim, the current study addresses the following research questions: (3) What context of belonging (i.e., family, Muslim community, American society) has the strongest independent association with mental health status (i.e., young adults' self-reported symptoms of depression, anxiety, substance use, and traumatic stress)? And (4) Does sense of belonging across multiple ecological contexts act as a psychological resource in an additive or compensatory manner?

For *Research Question 1*, given the literature on discrimination and Islamophobia impacting Muslim Americans, we hypothesized that sense of belonging would be higher in the family and Muslim community contexts, compared with the American society context. However, no specific hypotheses were made about relative levels of belonging across family and Muslim community contexts, given the limited literature on Muslim Americans' experiences in their family and Muslim community. For *Research Question 2*, based on the rejection-identification model, we hypothesized that perceived discrimination and Muslim race-based trauma would be negatively associated with sense of belonging to American society and positively associated with sense of belonging to family and the Muslim community. Additionally, given the extant literature, we hypothesized that levels of Muslim prototypicality (i.e., number of visible indicators of being Muslim and level of racial categorization) would be negatively associated with sense of belonging to American society and positively associated with sense of belonging to family and the Muslim community. For *Research Question 3*, we hypothesized that sense of belonging in each context would be negatively associated with symptoms of depression, anxiety, substance use, and traumatic stress, in line with previous literature showing that a sense of belonging acts as a psychological resource factor. However, we hypothesized that sense of

belonging in the family context would be the strongest predictor of mental health symptoms, given the particularly important role of family in Arab and South Asian Muslim American communities. For *Research Question 4,* competing hypotheses were tested. First, we tested an *additive* hypothesis that the greater the number of ecological contexts within which the respondent feels a high sense of belonging, the fewer mental health symptoms will be reported (e.g., an individual with high sense of belonging in all three contexts will have fewer mental health symptoms than an individual with a high sense of belonging in only one context). Second, we tested a *general compensatory* hypothesis that there would be a protective threshold (i.e., a specific number of contexts in which participants reported a high sense of belonging), that would be linked to fewer mental health symptoms. In this model there would be no difference in mental health symptoms between individuals reporting a high sense of belonging in one, two, or three contexts, but there would be significantly worse mental health status among individuals who report a high sense of belonging in no contexts compared with individuals who report high belonging in one or more contexts. Finally, we tested a *specific compensatory* hypothesis predicting that a high sense of belonging in one specific context would compensate for low belonging in other contexts – specifically we examined whether family belonging would moderate the relationships between belonging in the other two contexts and mental health status (e.g., high family belonging will be protective when belonging in other contexts is low), given the particularly important role of family for Muslim American young adults.

Gender was included as a covariate in analyses, given that past studies have found sense of belonging to have a significantly stronger relationship with social and psychological functioning for women than for men (Hagerty et al., 1996). These gender differences are thought to be attributed to the notion that women's psychosocial development places a greater emphasis

on their relationships with others, compared with men (Jordan et al., 1991). Additionally, gender differences were expected due to gender differences in the stereotypes associated with Muslims (Selod & Embrick, 2013). Race/ethnicity was also included as a covariate, to examine racial/ethnic differences in analyses, as Arab and South Asian young adults are likely to have different experiences with belonging, given that Arabs are closer to the Muslim prototype (Joshi, 2006).

Method

The current study utilized the same cross-sectional survey design as Study 2, to assess the impact of belonging in multiple contexts (i.e., family, the Muslim community, American society) on mental health status (i.e., anxiety, depression, substance use, traumatic stress). Data were collected between August and October 2020. The institutional review board (IRB) of the University of California, Los Angeles approved all study procedures. See Study 2 Method section for details on participants, recruitment, and ethical considerations. See Table 1 for participant characteristics for the full sample and by ethnic group. See Table 2 for descriptive statistics of study variables in full sample and by ethnicity.

Procedure

Data from the current study were collected as part of a larger survey developed for this dissertation. A 20- to 25-minute online survey was developed using Qualtrics. The survey assessed the following domains: demographic information, Muslim prototypicality, perceived discrimination, Muslim race-based trauma, sense of belonging (to family, the Muslim community, and American society), and mental health status (i.e., anxiety, depression, substance use, traumatic stress). Participants received a $15 electronic gift card upon completion of the survey.

Measures

Previously Described Measures

The following measures, described in Study 2, were also included in Study 3: *Background Questionnaire* (Appendix D.1), *Everyday Discrimination Scale* (EDS; Williams et al., 1997; Appendix D.5), *State- and Nation-Level Discrimination* (Schildkraut et al., 2019; Appendix D.6). *Patient Health Questionnaire for Adolescents* (PHQ-A; Johnson et al., 2002; Appendix D.7), *Generalized Anxiety Disorder Screener* (GAD-7; Spitzer et al., 2006; Appendix D.8), *CRAFFT+N* (Knight et al., 1999; Appendix D.9), *Muslim Race-Based Trauma Scale* (MRTS; Appendix D.11), and *Primary Care – Post-Traumatic Stress Disorder (PTSD) Screen for DSM-5* (PC-PTSD-5; Prins et al., 2016; Appendix D.12).

In the current study, the two discrimination measures (i.e., EDS, State- and Nation-Level Discrimination) and the Muslim Race-Based Trauma Scale were examined as predictors of belonging.

Belonging

Psychological Sense of Belonging. For the current study, the Psychological Sense of School Membership scale (PSSM; Goodenow, 1993) was adapted to ask participants about their sense of belongingness to their family, the Muslim community, and American society. The PSSM is an 18-item measure assessing belongingness or the psychological sense of membership in school. Items are rated on a 5-point Likert-type scale, ranging from 1 (*Not at all true*) to 5 (*Completely true*), with five items being reverse-scored. The scale has been shown to have acceptable internal consistency across different samples (Cronbach's alpha = .77 - .88). For the current study, items from the PSSM were revised to ask participants about their sense of belongingness within each ecological context of interest, using 7 items (11 items were not

relevant or appropriate for the intended focus). Sample items include "Sometimes I feel as if I don't belong in (my family / the Muslim community / American society)," "It is hard for people like me to be accepted in (my family / the Muslim community / American society)," and "I can really be myself in (my family / the Muslim community / American society)." The resulting measure had strong internal consistency for assessing family, Muslim community, and American society belonging (Cronbach's alpha = .92, .89, .84, respectively). For the current study, a mean cutoff of 3 or less (i.e., *Moderately true* to *Not at all true*) on the mean score was used to represent "low" levels of belonging, while scores greater than 3 (i.e., *Very true to Completely true*) represented "high" levels of belonging. See Appendix D.13 for this measure.

Muslim Prototypicality

Muslim Identifying Factors (Ashraf & Nassar, 2018). This questionnaire asked respondents to select all applicable Muslim identifying factors that describe their appearance from a list of clothing and physical characteristics often associated with Muslims. The original measure was adapted in the current study by the addition of synonymous terms for some items to increase cross-cultural relevance. Muslim identifying factors assessed include hijab (head scarf), beard, Keffiyeh/kufiya/hatta (traditional Arab headdress worn by men; may be worn as a scarf by younger population or as symbol of Palestinian activism), abaya/jilbab (long loose-fitting robe or garment worn by women), niqab/burqa (face covering worn by women), thawb/thobe/dishdasha (long loose-fitting garment worn by men, or traditional embroidered garment worn by many Arab women), taqiyah/kufi/prayer cap (prayer cap worn by men). Some of these factors may be cultural but often incorrectly associated with Muslims (e.g., keffiyeh). The number of Muslim identifying factors endorsed by participants was summed to yield a total score. Greater total scores represent greater Muslim prototypicality. In the current sample, this measure was shown

to have excellent reliability (Cronbach's alpha = .92). See Appendix D.3 for this measure.

Measure of Racial Categorization for Muslim Prototypicality. This measure was developed for the current study in order to capture participants' perceptions of their proximity to the Muslim phenotype based on their appearance. Participants were asked a series of six questions about how often others inside and outside their ethnic and religious groups have assumed they belonged to a particular group. Participants were asked two questions about how often others in/outside of their ethnic group assume they are White, two questions about how often others in/outside of their ethnic group assume they are Arab or South Asian (depending on the ethnic group they belong to), and two questions about how often others in/outside of their religious group assume they are Muslim. Example items include "How often have others outside your racial/ethnic group assumed you are [Arab/South Asian]?" and "How often have others in your racial/ethnic group assumed you are [Arab/South Asian]?" Respondents reported the frequency of each of these events on a 6-point Likert-type scale, ranging from 1 (*Never*) to 6 (*Always*). Items about how often others in/outside of their ethnic group assume they are White were reverse scored. All items were averaged to produce a total racial categorization score, with lower scores representing lower Muslim prototypicality (i.e., more "white-passing") and higher scores representing greater Muslim prototypicality. The measure was shown to have good internal consistency for Arabs (Cronbach's alpha = .80) and acceptable internal consistency for South Asians (Cronbach's alpha = .70). In the current study, racial categorization was examined as a predictor of belonging and mental health status. See Appendix D.4 for this measure.

Data Analytic Plan

Survey data were analyzed with SAS statistical software. For *Research Question 1*, descriptive statistics (i.e., mean values) were reported to describe participants' level of sense of

belonging in each context. A 2x3 mixed ANOVA was conducted to examine within-subjects differences in belonging and between-subjects differences by racial/ethnic group. For *Research Question 2*, a multivariate regression analysis was conducted to examine various types of perceived discrimination (i.e., Everyday Discrimination Scale, State- and Nation-Level Discrimination) and race-based trauma (i.e., MRTS) as predictors of belonging in each context. For *Research Question 3*, a multivariate regression analysis was conducted to simultaneously examine levels of belonging to family, the Muslim community, and American society as predictors of the four mental health indicators (i.e., depression, anxiety, substance use, and traumatic stress symptoms).

For *Research Question 4*, to test the *additive* hypothesis (i.e., greater number of contexts with high sense of belonging will predict fewer mental health symptoms), dummy codes were created to indicate whether participants reported "high" or "low" levels of belonging in each context, using a cutoff of 3 or less to represent "low" belonging and greater than 3 to represent "high" belonging. A count variable was calculated to reflect the number of contexts in which the individual reported "high" sense of belonging (range 0 to 3), examined as a continuous predictor of mental health status in a multivariate regression analysis. To test the *general compensatory* hypothesis (i.e., there will be a protective threshold of belonging, such that individuals who report a high sense of belonging in at least one context will report fewer symptoms than individuals reporting high belonging in zero contexts), the count variable was examined as a categorical predictor of mental health status in a multivariate regression analysis, with a reference group of zero contexts in which "high" belonging was reported. To further explore whether there is a protective threshold (i.e., a specific number of contexts in which participants reported a high sense of belonging) that would be linked to fewer mental health symptoms, we

examined least squares means to estimate mean levels of symptoms at zero, one, two, and three contexts with "high" levels of belonging. We tested differences in least squares means at *k* levels of "high" belonging and *k*-1 levels of "high" belonging (e.g., we compared least squares means for "high" belonging at 1 level with "high" belonging at 0 levels, and so on). This procedure allowed us to identify whether there were statistically significant and clinically meaningful changes in mental health symptoms at a specific number of contexts in which participants reported a "high" sense of belonging. To test the *specific compensatory* hypothesis (i.e., high family belonging will compensate for low belonging in other contexts), two-way interactions between belonging in different contexts were tested as predictors of each mental health outcome in linear regression analyses. Specifically, utilizing the continuous belonging scores, interactions between family belonging X American belonging, family belonging X Muslim community belonging, and American belonging X Muslim community belonging were examined as predictors. Gender, race/ethnicity, and the two indicators of Muslim prototypicality (i.e., Muslim identifying factors and racial categorization) were included in analyses as covariates.

Results

Research Question 1: Describing Sense of Belonging

As shown in Table 2, on a scale from 1 to 5, with higher numbers representing a greater sense of belonging, participants reported the greatest sense of belonging to their family (M = 3.84, SD = 0.98), followed by the Muslim community (M = 3.53, SD = 0.90). Participants reported the lowest sense of belonging to American society (M = 3.00, SD = 0.82). Figure 1 illustrates participants' reported level of belonging in the three contexts, by racial / ethnic group. Results of the mixed ANOVA revealed a significant within-subjects main effect for levels of belonging, $F(2, 550) = 128.25$, $p < .001$, such that participants reported significantly different

levels of belonging in the three contexts. There was no significant between-subjects main effect for race / ethnicity, $F(1, 275) = 0.004$, $p = .951$, such that there were no significant differences in levels of belonging between Arab and South Asian participants.

Research Question 2: Racialization, Marginalization, and Belonging

To test the rejection-identification model, we examined different types of perceived discrimination as predictors of sense of belonging in each context. As shown in Table 3, individual-level perceived everyday discrimination (i.e., EDS score) was negatively associated with family belonging, $b = -0.03$, $SE = .01$, $p < .001$, Muslim community belonging, $b = -0.03$, $SE = .01$, $p < .001$, and American society belonging, $b = -0.03$, $SE = .01$, $p < .001$. There was some support for the rejection-identification model given the significant negative association between perceived individual-level everyday discrimination and sense of belonging to American society. However, contrary to predictions was the finding that perceived individual-level discrimination was negatively, rather than positively, associated with both family belonging and Muslim community belonging. Furthermore, there were no significant associations between perceived state-level and nation-level racial or religious discrimination and sense of belonging in any context.

We found that Muslim race-based trauma was negatively associated with sense of belonging to both the Muslim community, $b = -0.03$, $SE = .01$, $p = .038$, and American society, $b = -0.06$, $SE = .01$, $p < .001$, but not family belonging. Additionally, both measures of Muslim prototypicality (i.e., Muslim identifying factors and racial categorization) were positively associated with belonging to the Muslim community, such that the greater number of visual indicators of being Muslim one reported, and the greater their level of racial categorization (i.e., the less "White-passing" one reported being), the greater their sense of belonging in the Muslim

community. In regard to family belonging, the greater level of racial categorization one reported, the greater their level of family belonging; however, the number of visual indicators of being Muslim one reported only had a trend-level association with family belonging. Measures of Muslim prototypicality were not predictive of belonging to American society. Finally, female participants reported a significantly lower level of belonging to the Muslim community than male participants. There were no gender differences in belonging in other contexts, and there were no racial / ethnic differences in level of belonging in any context.

Research Question 3: Belonging as a Predictor of Mental Health

Results indicated that level of belonging in each context was associated with mental health status, as shown in Table 4. Family belonging appeared to be the strongest predictor of mental health symptoms, consistent with our hypothesis, and was the only context of belonging associated with all mental health outcomes. Specifically, family belonging was negatively associated with depressive symptoms, $b = -2.58$, $SE = .51$, $p < .001$, anxiety symptoms, $b = -1.45$, $SE = .46$, $p = .002$, substance use symptoms, $b = -0.25$, $SE = .12$, $p = .031$, and traumatic stress symptoms, $b = -0.49$, $SE = .16$, $p = .002$. Muslim community belonging was negatively associated with substance use symptoms, $b = -0.49$, $SE = .14$, $p < .001$, while American society belonging was negatively associated with depressive symptoms, $b = -1.23$, $SE = .45$, $p = .007$, and anxiety symptoms, $b = -1.29$, $SE = .42$, $p = .002$.

In this sample, women reported greater depressive and anxiety symptoms, and fewer substance use symptoms, than men. There were no racial / ethnic differences in levels of mental health symptoms. Upon examination of indicators of Muslim prototypicality, racial categorization was positively associated with depressive symptoms only, such that the less "White-passing" someone reported being, the greater number of depressive symptoms they

reported. Racial categorization did not predict any other mental health symptoms, and the number of visual indicators of being Muslim one reported was not associated with mental health symptoms.

Research Question 4: Competing Hypotheses on the Interplay of Multiple Contexts of Belonging

To understand how belonging in various contexts may act as a psychological resource in its relation to mental health status, we tested competing hypotheses associated with additive, general compensatory, and specific compensatory models.

Additive Model

As shown in Table 5, the number of contexts in which a "high" level of belonging was reported was negatively associated with all mental health outcomes, supporting the additive hypothesis. Specifically, the greater number of ecological contexts within which the participant reported a "high" level of belonging, the fewer depressive symptoms, b = -3.02, SE = .35, p < .001, anxiety symptoms, b = -2.67, SE = .30, p < .001, substance use symptoms, b = 0.38, SE = .08, p < .001, and traumatic stress symptoms, b = -0.61, SE = .11, p < .001, were reported.

General Compensatory Model

To detect specific thresholds of belonging that may confer protection for mental health outcomes, we identified which level of belonging (i.e., "high" sense of belonging in one, two, or three contexts) yielded both statistically significant and clinically meaningful changes in mental health symptoms. Statistically significant changes were observed when mental health symptoms at k levels of belonging were significantly lower than symptoms at k – 1 levels of belonging. To determine clinically meaningful changes, we utilized clinical cutoff scores previously established for each of our mental health measures. Specifically, the following cutoff scores represented

clinically elevated symptoms: Depression = 10 or greater (PHQ-9; Kroenke et al., 2009), anxiety = 10 or greater (GAD-7; Spitzer et al., 2006), substance use = 4 or greater (CRAFFT-N; Bagley et al., 2016), and traumatic stress = 3 or greater (PC-PTSD-5; Prins et al., 2016). When the least squares means changed from clinically elevated at $k - 1$ levels of belonging to not clinically elevated at k levels of belonging, we concluded a clinically meaningful change at a threshold of k levels of belonging.

As shown in Table 6, compared to individuals who reported "high" sense of belonging in zero contexts, individuals who reported "high" belonging in two or three contexts had significantly fewer symptoms across all mental health outcomes. Individuals who reported "high" belonging in one context reported fewer depression and anxiety symptoms than the reference group, but there were no significant differences in substance use or traumatic stress symptoms (see Table 7 for complete multivariate regression results).

As shown in Table 7, for depression, anxiety, and traumatic stress, we identified a protective threshold of belonging in two contexts, such that individuals who reported high sense of belonging in at least two contexts experienced statistically and clinically meaningful reductions in symptoms. Specifically, for depression and anxiety, a "high" sense of belonging in zero and one contexts were both linked to clinically elevated symptoms, whereas belonging in two contexts was linked to significantly fewer depressive and anxiety symptoms (i.e., in the mild range and no longer clinically elevated). For traumatic stress, a "high" sense of belonging in one context was linked to clinically elevated symptoms, whereas belonging in two contexts was linked to significantly fewer traumatic stress symptoms (i.e., no longer clinically elevated). For substance use, symptoms were subclinical at all levels of belonging, making it difficult to identify clinically meaningful reductions in symptoms; however, we found a statistically

significant reduction in substance use symptoms for individuals who reported high sense of belonging in at least two contexts, representing a potentially protective threshold for substance use symptoms.

Specific Compensatory Model

To test the specific compensatory model (i.e., high family belonging would compensate for belonging in other contexts), we examined family belonging as a moderator of the relationship between the other two contexts of belonging and mental health status. As shown in Table 8, there was no significant interaction between family belonging and Muslim community belonging or between family belonging and American society belonging for any mental health outcome. Thus, the specific compensatory model was not supported.

Discussion

The current study examined the unique roles of sense of belonging in various ecological contexts (i.e., within the family, Muslim community, and American society) for mental health, with additional examination of intergroup factors (i.e., perceived discrimination, race-based trauma) as predictors of belonging. We found that Muslim American young adults reported greatest level of belonging to their family and lowest level of belonging to American society, pointing to the current state of Muslims in America and their minoritized positionality within society (Ayoub & Beydoun, 2017; Considine, 2017). This study sought to expand upon the rejection-identification model, which posits that experiencing rejection (e.g., discrimination) from a dominant out-group often results in increased in-group identification (Branscombe et al., 1999). We aimed to understand how experiences of discrimination relate to belonging to different groups, rather than solely focusing on discrimination as a driver of identity centrality, as in the original rejection-identification model.

Analyses revealed that perceived individual-level everyday discrimination was negatively associated with belonging in each context, which is inconsistent with the rejection-identification model. While perceived everyday discrimination was linked to lower levels of belonging to American society in our study, it was also linked to lower, rather than higher, levels of belonging to one's family and the Muslim community. One explanation for this finding may be that young adults may distance themselves from their families and Muslim communities in response to discrimination, as a protective strategy to increase their own individual social mobility and belongingness to the dominant American society (Ellemers et al., 1988). This strategy may especially be used if individuals attribute their discrimination to aspects of their in-group identities (e.g., being Muslim, being Arab or South Asian). Studies have also found that minoritized individuals tend to compare themselves to other members of their in-group and evaluate their level of discrimination experience relative to their in-group peers, a process that may help to protect their self-esteem (Bourguinon et al., 2006). Such a process may lead young adults to further distance themselves from in-group members. As a result, distancing oneself from an in-group may contribute to ambiguous identity development for minoritized young adults, resulting in a threatened sense of belonging to both in-groups and out-groups as they navigate their multiple identities in search of acceptance (Navarrete & Jenkins, 2011). Given this developmental stage and emerging independence, young adults may be more readily able to distance themselves from their families and community in response to discrimination, compared with adolescents. Alternatively, young adults who perceive higher levels of discrimination may be more likely to experience lower levels of belonging across contexts due to factors such as participants' negative mood at time of survey completion, personality factors that contribute to interpretation of interactions as negative or hostile, or social factors (e.g., socioeconomic status,

immigration) that contribute to perceiving social interactions as potentially negative (Broudy et al., 2007; Gallo et al., 2005).

Notably, while Muslim race-based trauma was negatively associated with sense of belonging to the Muslim community and to American society, it was not associated with belonging in the family context. Race-based trauma involves both individual-level and societal-level violence as well as negative emotional reactions linked to violence, such as fear or anxiety. Thus, race-based trauma is qualitatively distinct from perceptions of discrimination, warranting separate investigation. Unlike Muslim race-based trauma, perceived state-level and nation-level discrimination were not associated with belonging in any context, suggesting that individuals may be resilient to perceived societal discrimination that is not directly experienced. This is consistent with some literature on public regard which has found that individuals' beliefs about how others view their group are not directly related to their perceived individual-level discrimination (Sellers & Shelton, 2003) or their well-being (Sellers et al., 2003; Sellers et al., 2006). However, the literature on public regard and well-being has been mixed (Sellers & Shelton, 2003; Yip et al., 2006). One explanation for the difference between individual-level versus state- and nation-level discrimination may be the differential impacts on self-esteem. As young adults experience heightened direct discrimination, they may internalize discrimination as a negative reflection of their sense of self. Previous research found that personal, but not group-level, discrimination was linked to negative self-esteem (Bourguinon et al., 2006). Further, the literature on race-based trauma indicates that exposure to race-based trauma may threaten individuals' self-esteem by instilling feelings of worthlessness and powerlessness (Carter, 2007). These findings suggest that different experiences of discrimination may have distinct effects on sense of belonging to identity groups and likely their relation to mental health. Results also

underscore the importance of targeting individual-level discrimination and race-based trauma for mental health prevention efforts.

Upon examination of the association between sense of belonging and mental health status, we found that family belonging was the only context of belonging associated with all mental health outcomes, such that greater family belonging was linked to lower levels of reported symptoms for all mental health indicators. Sense of belonging to American society was negatively associated with depression and anxiety symptoms, while belonging to the Muslim community was only negatively associated with substance use symptoms. One explanation for the robust association of family belonging compared with belonging in other contexts may be the role and significance of family in the Muslim American community given Muslim immigrant communities' collectivistic values and the revered position of family both culturally and religiously. Past research highlights the importance of family specifically in shaping young Muslim Americans' self-image, self-esteem, identity, and security (Daneshpour, 1998). Thus, if young adults lack a sense of belonging in their family context, they likely experience low self-esteem, identity challenges, and lack of security, which may contribute to pervasive poor mental health outcomes. Moreover, given that young adults' family relationships are more proximal than communal or societal relationships, the family may have more of an impact on their daily lives (Bronfenbrenner & Morris, 1998). Whereas young adults may be able to cope with lack of belonging to the Muslim community or American society, effectively managing lack of belonging to one's family may be more difficult, and individuals with a low sense of family belonging may experience increased daily conflict and lack of support. An alternative explanation for the association between family belonging and mental health symptoms may relate to the directionality of this link. It is possible that young adults with greater mental health

symptoms may feel alienated from their family due to mental health stigma within many Muslim American families (Daneshpour, 1998). Furthermore, the association between Muslim community belonging and substance use may be explained by understanding religious expectations and rules related to substance use. In particular, Islam prohibits the use of alcohol and illicit drugs, so this finding may reflect that individuals who use substances may feel that they do not belong to the Muslim community due to being less religious, having differences in religious practices, or experiencing judgment from community members (Koenig & Al Shohaib, 2019; Mallik et al., 2021). These findings underscore the importance of examining and targeting sense of belonging in different contexts, as belonging in different contexts functions uniquely as related to mental health symptoms. For Muslim Americans, it appears that targeting sense of belonging to one's family is an especially important point for prevention and intervention efforts, as family belonging appears to have important implications for depression, anxiety, substance use, and traumatic stress.

Lastly, we sought to understand how belonging across multiple ecological contexts act in relation to mental health. Our findings supported an *additive* model of belonging, such that the greater number of ecological levels within which an individual felt a high sense of belonging, the fewer mental health symptoms they reported. This finding is consistent with a study that found that the greater number of connections to different contexts a youth felt, the greater the level of protection for their self-esteem (Witherspoon et al., 2009). The additive model suggests that mental health efforts should seek to promote individuals' sense of belonging in as many ecological contexts as possible, consistent with a socio-ecological approach to mental health (Bronfenbrenner, 1989). Our findings also supported a *general compensatory* model of belonging, though our specific hypotheses were not supported given that there were significant

differences in symptoms when comparing belonging in one, two, and three contexts, and the protective threshold was different than hypothesized. We identified a protective threshold of two contexts with a "high" sense of belonging, such that individuals who reported "high" belonging in at least two contexts reported significantly fewer depression, anxiety, substance use, and traumatic stress symptoms. Overall, it appears that feeling a high sense of belonging in at least two contexts is beneficial for mental health, and that having a high sense of belonging in only one context is not sufficient. While previous studies also identified a protective threshold for psychological outcomes, supporting the general compensatory model, our specific identified threshold differed from past studies that found a sense of connection to at least one context was protective for adolescents' self-esteem and depression (Witherspoon et al., 2009). However, Witherspoon and colleagues (2009) did find that connectedness in two contexts offered greater psychological benefits than connectedness in two contexts. These differences may be explained by differences in measurement and analytic techniques. For example, the current study examined clinical cutoffs to determine risk for psychiatric disorders, rather than simply looking at symptom reduction. Thus, a greater number of contexts with high belonging may be necessary to prevent the development of psychiatric disorders, whereas lower levels of belonging may be enough for slighter symptom reduction.

Finally, our analyses did not support the specific compensatory hypothesis that high family belonging would compensate for low belonging at other levels. Although previous studies found that having a general connection to any context was related to fewer depressive symptoms for youth (Costa et al., 2005; Witherspoon et al., 2009), our findings may reflect the unique needs of young adults. Whereas studies have found that early adolescents develop a sense of belonging through their peers, late adolescents and young adults were found to develop a sense

of belonging through their friends, romantic relationships, peers, or marital status (Qualter et al., 2015). Thus, for young adults, it appears that strong family connections cannot compensate for lower levels of connection or belonging in other contexts, such as with peers, romantic partners, their college community, their religious community, or broader society.

Limitations

It is important to acknowledge several limitations of this study. First, although the current study included a sample comprised of multiple ethnic groups, the generalizability of findings is limited by the cultural groups represented and the inclusion of only Muslim Americans. Thus, generalization to other ethnic groups and religious groups should be made with caution. Furthermore, these data were collected within the context of the COVID-19 pandemic, which has had profound impacts on individuals' daily lives and mental health (Pfefferbaum & North, 2020). Given the timing and context of data collection, the levels of mental health symptoms for the current sample may differ from levels prior to the pandemic. Finally, the cross-sectional nature of the survey precludes the ability to draw conclusions about directionality and causality or to observe changes in mental health over time.

Notwithstanding these limitations, this study has several strengths and addressed important questions about sense of belonging in multiple contexts, for individuals with multiple minority identities. First, this study built upon previous research on sense of belonging to look at belongingness through a socio-ecological lens, simultaneously examining belonging in more than one context, which has previously received little attention. This approach highlighted the nuances of belongingness and the importance of examining multiple types of belonging. This study also provided insight into the relationship between experiences of marginalization and belonging in different contexts, building upon the extant literature on discrimination and

belonging by including various types of perceived discrimination (i.e., individual-level, state-level, and nation-level discrimination) and race-based trauma, as well as by examining the impact of these experiences in more than one context.

Future Directions

Our findings highlight the importance of examining sense of belonging in multiple contexts and suggest that future research on belonging should utilize a socio-ecological approach and examine nuances in how different types of belonging interplay to influence mental health. Given the study limitations, future research should investigate sense of belonging in multiple ecological contexts for other ethnic and religious groups, to increase generalizability of findings. Further, future longitudinal research would be beneficial to better understand the underlying mechanisms of mental health and the impact of discrimination and sense of belonging on mental health over time.

Moreover, our findings have important implications for mental health prevention and intervention efforts. For example, mental health efforts should target perceived individual-level discrimination and race-based trauma to increase individuals' sense of belonging. Collective interventions for race-based trauma are warranted, in order to increase sense of connectedness and collective healing, and may include interventions such as story-telling (East et al., 2010) and facilitated groups (Chioneso et al., 2020). Examples of such interventions include Emotional Emancipation Circles, aimed at healing racial trauma in Black communities (Grills et al., 2016), as well as the HEART (Healing Ethno And Racial Trauma) Framework, designed for the Latinx immigrant community (Chavez-Dueñas et al., 2019). Within the Muslim American community, mental health efforts should especially focus on increasing individuals' sense of belonging to their family to improve mental health. These efforts may focus on young adults' identity

development or on family-focused interventions that can help young adults develop positive relationships with their families. For efforts directed at young adults, interventions emphasizing self-esteem, identity development, and values may be effective in targeting constructs that young adults may struggle with when experiencing family difficulties. For example, Acceptance and Commitment Therapy (ACT) may help Muslim American young adults develop their identities and self-awareness, live a life in line with their values, and learn to effectively cope with challenges they experience in their lives (Harris, 2009). Family-focused interventions may target the whole family system and may be delivered through formal and informal institutions. For example, formal mental health interventions may entail treatments such as a community-based positive psychology intervention focused on building open-mindedness, gratitude, and hope within families (Zhou et al., 2016). Alternatively, Muslim families may seek mediation through Imams at their local mosque, who may support the family in building their relationships (Al-Krenawi, 2016). Family interventions may also seek to provide psychoeducation to parents in the Muslim American community, about issues their children may be experiencing as well as the impact of generational differences resulting from acculturation gaps. Psychoeducation efforts may be done through formal mental health interventions (e.g., Yoo, 2008) or informally through mosques or community events (Al-Krenawi, 2016). Importantly, previous research has highlighted critical considerations for mental health practitioners when working with Muslim immigrant families (e.g., Bushfield & Fitzpatrick, 2010). Lastly, our findings regarding the additive and general compensatory models of belonging underscore the importance of promoting individuals' sense of belonging in multiple contexts to promote mental health. Intervention efforts drawing on positive psychology have been shown to be effective in increasing sense of belonging. However, many interventions targeting belonging have been designed for educational

settings (e.g., Diebel et al., 2016; LaCosse et al., 2020; Marksteiner et al., 2019), warranting further efforts to increase belonging in other contexts. Further research is also warranted to identify other predictors of belonging, in order to clarify targets for intervention.

Tables and Figures

Table 1

Sample Characteristics in Full Sample and by Ethnicity

Characteristic	**Full Sample** (*N* = 277) *M(SD) or n(%)*	**Arab** (*n* = 139) *M(SD) or n(%)*	**South Asian** (*n* = 138) *M(SD) or n(%)*
Age	21.81 (2.25)	21.67 (2.27)	21.96 (2.23)
Gender			
Female	224 (80.9%)	115 (82.7%)	109 (79.0%)
Male	51 (18.4%)	24 (17.3%)	27 (19.6%)
Genderqueer / Gender non-conforming	2 (0.7%)	0 (0.0%)	2 (1.4%)
Sexual Orientation			
Straight / Heterosexual	246 (88.8%)	127 (91.4%)	119 (86.2%)
Gay / Lesbian	3 (1.1%)	1 (0.7%)	2 (1.4)
Bisexual	12 (4.3%)	3 (2.2%)	9 (6.5%)
Queer	2 (0.7%)	0 (0.0%)	2 (1.4%)
Pansexual	1 (0.4%)	1 (0.7%)	0 (0.0%)
Questioning or Unsure	9 (3.2%)	5 (3.6%)	4 (2.9%)
Prefer Not to Disclose	4 (1.4%)	2 (1.4%)	2 (1.4)
Generational Status			
1st generation	69 (24.9%)	37 (26.6%)	32 (23.2%)
2nd generation	206 (74.4%)	100 (71.9%)	106 (76.8%)
3rd generation	2 (0.7%)	2 (1.4%)	0 (0.0%)
Highest Education Level Completed			
High school or less	14 (5.1%)	6 (4.3%)	8 (5.8%)
Some college (no degree)	82 (29.6%)	45 (32.4%)	37 (26.8%)
Associate's degree	22 (7.9%)	14 (10.1%)	8 (5.8%)
Bachelor's degree	128 (46.2%)	57 (41.0%)	71 (51.4%)
Master's degree	26 (9.4%)	14 (10.1%)	12 (8.7%)
Doctoral degree	1 (0.4%)	0 (0.0%)	1 (0.7%)
Professional degree	4 (1.4)	3 (2.2%)	1 (0.7%)
Perceived Social Status (range 1-10)	5.60 (1.63)	5.59 (1.65)	5.61 (1.63)

Table 2

Descriptive Statistics of Study Variables in Full Sample and by Ethnicity

Variable	**Full Sample** (*N* = 277) *M(SD) or n(%)*	**Arab** (*n* = 139) *M(SD) or n(%)*	**South Asian** (*n* = 138) *M(SD) or n(%)*	*t or* X^2
Sense of Belonging				
Family	3.84 (0.98)	3.93 (0.92)	3.76 (1.04)	*t* = -1.40
Muslim Community	3.53 (0.90)	3.53 (0.88)	3.53 (0.91)	*t* = -0.03
American Society	3.00 (0.82)	2.92 (0.81)	3.07 (0.83)	*t* = 1.54
Muslim Prototypicality				
# Muslim Identifying Factors	1.84 (1.26)	2.12 (1.33)	1.57 (1.13)	*t* = -3.77***
Racial Categorization (non-White-passing)	4.07 (0.73)	3.87 (0.85)	4.27 (0.52)	*t* = 4.69***
Perceived Discrimination				
Everyday Discrimination	14.13 (8.9)	14.37 (9.03)	13.90 (8.73)	*t* = -0.44
State Discrimination	6.21 (1.79)	6.32 (1.91)	6.10 (1.66)	*t* = -1.01
National Discrimination	7.84 (1.60)	8.04 (1.62)	7.65 (1.57)	*t* = -2.00
Trauma Exposure				
Cumulative Trauma (CTS)	12.29 (6.66)	12.79 (6.77)	11.78 (6.53)	*t* = -1.27
Muslim Race-Based Traumatic Stress (MRTS)	9.75 (3.95)	10.04 (4.02)	9.46 (3.87)	*t* = -1.21
Mental Health Status (Total scores)				
Depression (PHQ)	9.48 (6.65)	9.61 (6.36)	9.34 (6.95)	*t* = -0.34
Anxiety (GAD-7)	8.47 (5.94)	8.96 (6.01)	7.97 (5.85)	*t* = -1.39
Substance Use (CRAFFT-N)	0.81 (1.41)	0.71 (1.25)	0.91 (1.54)	*t* = 1.19
Traumatic Stress (PC-PTSD-5)	2.32 (1.87)	2.49 (1.92)	2.15 (1.81)	*t* = -1.48
Mental Health Status (Clinically elevated)				
Depression (PHQ)[a]	120 (43.3%)	61 (43.9%)	59 (42.8%)	X^2 = 0.04
Anxiety (GAD-7)[b]	106 (38.3%)	59 (42.4%)	47 (34.1%)	X^2 = 2.06
Substance Use (CRAFFT-N)[c]	22 (7.9%)	7 (5.0%)	15 (10.9%)	X^2 = 3.22$^+$
Traumatic Stress (PC-PTSD-5)[d]	133 (48.0%)	71 (51.1%)	62 (44.9%)	X^2 = 1.05

Note. [a] PHQ-9 clinical cutoff =10 (Kroenke at al., 2009); [b] GAD-7 clinical cutoff = 10 (Spitzer et al., 2006); [c] CRAFFT-N clinical cutoff = 4 (Bagley et al., 2016); [d] PC-PTSD-5 clinical cutoff = 3 (Prins et al., 2016)

***$p < .001$, $^+p < .10$

Table 3

Multivariate Regression Model of Discrimination and Race-based Trauma as Predictors of Belonging

	Family Belonging		Muslim Community Belonging		American Society Belonging	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	3.79***	.43	2.95***	.38	4.52***	.33
Gender (Female)	-0.18	.15	-0.25*	.13	-0.10	.11
Ethnicity (Arab)	0.19	.12	0.08	.10	-0.10	.09
Muslim Identifying Factors	.09^{+}	.05	0.14***	.04	0.02	.03
Racial Categorization	0.16*	.08	0.31***	.07	0.01	.06
Perceived Everyday Discrimination (EDS)	-0.03***	.01	-0.03***	.01	-0.03***	.01
Perceived State Discrimination	-0.03	.04	-0.04	.03	-0.04	.03
Perceived National Discrimination	0.02	.04	0.02	.04	-0.03	.03
Muslim Race-Based Trauma	-0.02	.02	-0.03*	.01	-0.07***	.01

Note. * $p < .05$, ***$p < .001$, $^{+}p < .10$

Table 4

Multivariate Regression Model of Belonging as a Predictor of Mental Health Status

	PHQ-9		GAD-7		CRAFFT-N		PC-PTSD-5	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	19.72***	2.64	16.13***	2.44	3.45***	0.62	3.86***	0.83
Gender (Female)	2.16*	0.89	3.20***	0.81	-0.42*	0.21	0.53^{+}	0.28
Ethnicity (Arab)	1.03	0.72	1.16^{+}	0.67	-0.11	0.17	0.43^{+}	0.23
Muslim Identifying Factors	-0.07	0.29	0.13	0.26	-0.02	0.07	0.06	0.09
Racial Categorization	1.16*	0.50	0.52	0.46	0.02	0.12	0.30^{+}	0.16
Family Belonging	-2.58***	0.50	-1.45**	0.46	-0.25*	0.12	-0.49**	0.16
Muslim Belonging	-0.98^{+}	0.58	-1.06^{+}	0.54	-0.49***	0.14	-0.30	0.18
America Belonging	-1.23**	0.45	-1.29**	0.42	0.14	0.11	-0.21	0.14

Note. * $p < .05$, ** $p < .01$, ***$p < .001$, $^{+}p < .10$

Table 5

Additive Model of Belonging as Predictor of Mental Health Status

	PHQ-9		GAD-7		CRAFFT-N		PC-PTSD-5	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	9.32***	2.31	8.52***	2.01	2.46***	0.54	1.77*	0.71
Gender (Female)	2.43	0.92	3.35***	0.80	-0.36^{+}	0.22	0.60*	0.28
Ethnicity (Arab)	1.08	0.75	1.37*	0.66	-0.15	0.18	0.43^{+}	0.23
Muslim Identifying Factors	-0.26	0.30	-0.003	0.26	-0.08	0.07	0.01	0.09
Racial Categorization	0.98^{+}	0.51	0.43	0.44	-0.10	0.12	0.24	0.15
# Contexts with "High" Belonging	-3.02***	0.35	-2.67***	0.30	-0.38***	0.08	-0.61***	0.11

Note. * $p < .05$, ***$p < .001$, $^{+}p < .10$

Table 6

General Compensatory Model of Belonging as Predictor of Mental Health Status

	PHQ-9		GAD-7		CRAFFT-N		PC-PTSD-5	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	9.18***	2.41	8.47***	2.10	2.41***	0.56	1.31^{+}	0.73
Gender (Female)	2.40**	0.92	3.32***	0.80	-0.38^{+}	0.22	0.59*	0.28
Ethnicity (Arab)	1.07	0.76	1.35*	0.66	-0.16	0.18	0.45^{+}	0.23
Muslim Identifying Factors	-0.25	0.30	.01	0.26	-0.08	0.07	0.01	0.09
Racial Categorization	1.02*	0.51	.47	0.45	-0.08	0.12	0.26^{+}	0.16
Belonging: "High" in 1 Context[a]	-2.66*	1.30	-2.47*	1.13	-0.24	0.30	0.25	0.39
Belonging: "High" in 2 Contexts[a]	-6.44***	1.13	-5.83***	0.98	-0.91***	0.26	-0.83*	0.34
Belonging: "High" in 3 Contexts[a]	-9.92***	1.13	-7.91***	0.99	-1.08***	0.26	-1.53***	0.34

Note. [a] Reference group is "High" Belonging in 0 Contexts.
* $p < .05$, ** $p < .01$, ***$p < .001$, $^{+}p < .10$

Table 7

Least Squares Means Estimates and Differences Comparing Number of Contexts with "High" Belonging

	PHQ-9[a]		GAD-7[b]		CRAFFT-N[c]		PC-PTSD-5[d]	
# Contexts with "High" Belonging	LS Mean	Difference from k-1 [e]	LS Mean	Difference from k-1 [e]	LS Mean	Difference from k-1 [e]	LS Mean	Difference from k-1 [e]
0	14.63	-	12.73	-	1.66	-	2.92	-
1	11.97	.042*	10.27	.031*	1.42	.423	3.17	.531
2	**8.19**	**<.001*** **	**6.91**	**<.001*** **	**0.76**	**.009** **	**2.09**	**.001** **
3	5.71	.003**	4.82	.004**	0.58	.359	1.39	.006**

Note. [a] PHQ-9 clinical cutoff =10 (Kroenke at al., 2009); [b] GAD-7 clinical cutoff = 10 (Spitzer et al., 2006); [c] CRAFFT-N clinical cutoff = 4 (Bagley et al., 2016); [d] PC-PTSD-5 clinical cutoff = 3 (Prins et al., 2016); [e] *p*-value represents significance value comparing least squares means of *k* and *k* – 1 levels of belonging. **Bolded** results indicate the protective threshold of belonging identified for each mental health outcome.
* $p < .05$, ** $p < .01$, *** $p < .001$, $^{+}p < .10$

Table 8

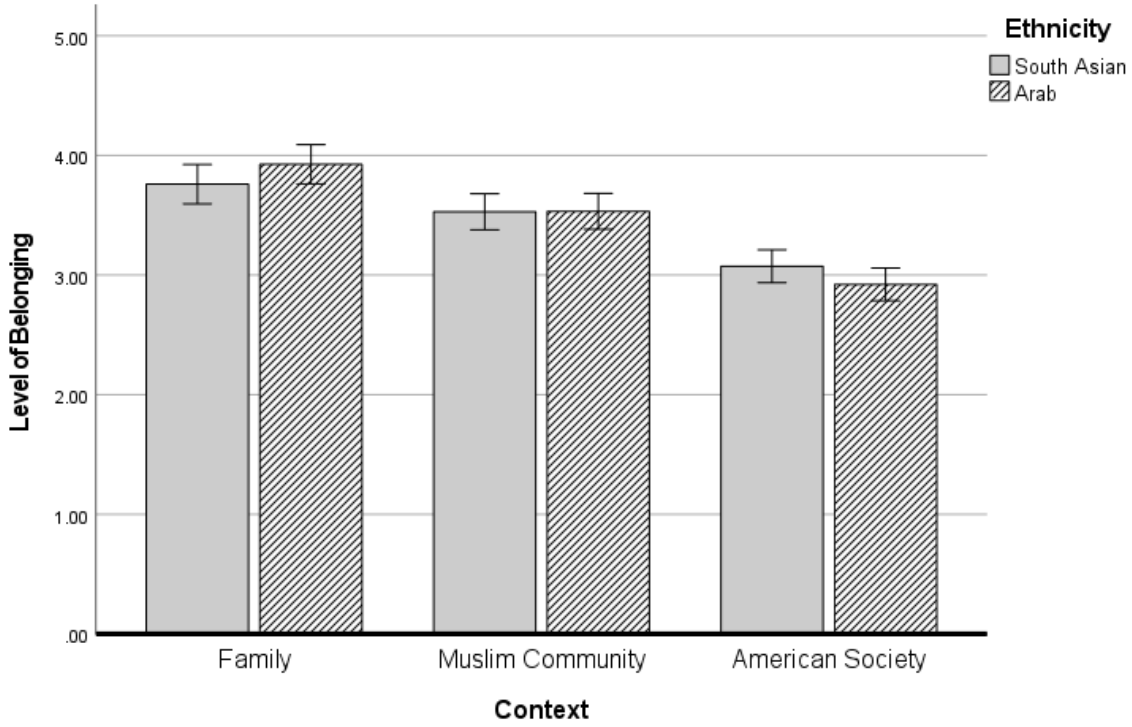
Specific Compensatory Model of Belonging as Predictor of Mental Health Status

	PHQ-9		GAD-7		CRAFFT-N		PC-PTSD-5	
Predictor	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Intercept	19.80***	2.70	16.11***	2.48	3.32***	0.63	4.01***	0.85
Gender (Female)	2.19*	0.88	3.24***	0.81	-0.44*	0.21	0.55^{+}	0.28
Ethnicity (Arab)	0.96	0.73	1.08	0.67	-0.11	0.17	0.43^{+}	0.23
Muslim Identifying Factors	-0.07	0.29	0.08	0.27	-0.01	0.07	0.05	0.09
Racial Categorization	1.15*	0.50	0.49	0.46	0.13	0.12	0.31*	0.16
Family Belonging	-2.58***	0.53	-1.37**	0.49	-0.21^{+}	0.13	-0.54**	0.17
Muslim Belonging	-0.99^{+}	0.59	-1.01^{+}	0.54	-0.50***	0.14	-0.29	0.18
America Belonging	-1.22**	0.46	-1.45***	0.43	0.14	0.11	-0.20	0.15
Family Belonging X Muslim Belonging	-0.08	0.43	0.05	0.40	0.10	0.10	-0.12	0.14
Family Belonging X America Belonging	0.49	0.57	0.34	0.53	-0.05	0.13	0.07	0.18
Muslim Belonging X America Belonging	-0.25	0.64	0.59	0.58	-0.09	0.15	0.04	0.20

Note. * $p < .05$, ** $p < .01$, ***$p < .001$, $^{+}p < .10$

Figure 1

Level of Belonging in Various Contexts, By Ethnic Group



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GENERAL DISCUSSION OF THE DISSERTATION

Utilizing both qualitative and quantitative research designs, the three current dissertation studies aimed to identify a range of perspectives on a variety of topics related to Muslim American mental health. Specifically, this dissertation sought to better understand the mental health-service gap for Muslim American young adults by identifying mental health needs, determinants of mental health, and perceived barriers to mental health services for Muslim American young adults. As many Muslim Americans belong to multiple minority groups (i.e., religious and ethnic minority), we aimed to expand the extant psychological literature on mental health among multiply marginalized individuals.

Study 1 revealed that Muslim American community stakeholders perceived the top mental health priorities for Muslim American young adults to include depression, anxiety, and stress related to conflict with parents / family. Studies 2 and 3 indicated that rates of clinically elevated depression (43.3%) and anxiety (38.3%) symptoms were high among Arab and South Asian Muslim American young adults who participated in an online survey, in addition to high rates of clinically elevated traumatic stress symptoms (48.0%). These findings highlight depression and anxiety as especially important targets for intervention within the Muslim American community.

Across the studies, familial issues appeared to have significant implications for young adults' mental health. Whereas family conflict and broader family-related issues were highlighted as primary drivers of mental health challenges across all focus groups in Study 1, Study 3 revealed similar findings. In Study 3, family belonging was negatively associated with all mental health indicators; individuals who reported greater levels of family belonging, which presumably entails lower levels of conflict and stress within the family, reported fewer mental

health symptoms. Thus, increasing family cohesion and sense of belonging within one's family appear to be among the most important targets for mental health prevention and intervention efforts for Muslim American young adults.

Whereas Study 1 utilized an exploratory approach to identify community stakeholders' perceptions of determinants of mental health, Studies 2 and 3 utilized a cross-sectional survey to specifically investigate perceived discrimination, religious and ethnic group identification, and sense of belonging as predictors of mental health status. Stakeholders in Study 1 identified determinants across all socio-ecological levels, including structural determinants (i.e., sociopolitical climate, structural inequities), as well as proximal determinants at the cultural (i.e., cultural expectations), familial (i.e., family conflict), and individual (i.e., identity conflict, socioeconomic or financial issues, lack of awareness about mental health) levels. Interestingly, for young adults in Study 2, individual- and nation-level perceived discrimination were identified as risk factors for mental health symptoms; however, in Study 1, only mental health professionals and community leaders, but not young adults, identified discrimination, racism, and Islamophobia as determinants of mental health. Notably, across all focus groups in Study 1, discrimination, racism, and Islamophobia received significantly less attention and discussion than anticipated, suggesting that intra-group issues may be perceived as more impactful for young adults' mental health compared with inter-group issues. Additionally, while Muslim American young adults may not perceive discrimination, racism, and Islamophobia to be a top determinant, our Study 2 results indicate that their mental health does appear to be significantly affected by perceived discrimination. Thus, Muslim American young adults may have limited insight into the effects of perceived discrimination or may view the effects as less substantial compared with other determinants.

Lastly, as anticipated, identity conflict emerged as a greatly impactful issue for Muslim American young adults. In Study 1, identity conflict was frequently discussed across focus groups and was identified both as a top determinant of mental health as well as a top mental health priority. Stakeholders emphasized Muslim American young adults' competing identities and cultural expectations, highlighting the challenges associated with navigating ethnic, American, and Muslim identities and expectations. Across the three studies, findings underscored the importance of utilizing an intersectional approach when investigating mental health among individuals with multiple minority identities. Indeed, Muslim American young adults' various identities appear to interplay to impact mental health, warranting consideration of these identities, and associated conflict between the identities, when conducting research or designing mental health prevention and intervention efforts.

The current dissertation makes a contribution to the extant psychological literature by shedding light on Muslim American young adults' mental health from the perspectives of various community stakeholders, examining dual identity processes for individuals belonging to two minoritized groups, and investigating sense of belonging in various contexts utilizing a socio-ecological approach. However, it is important to acknowledge several limitations of this dissertation. Across all three studies, our samples included an over-representation of female participants; thus, our results may not adequately reflect the perspectives of Muslim American men and survey findings on mental health prevalence and determinants of mental health may be skewed. Additionally, the current studies are primarily limited to Arab and South Asian perspectives; while Studies 2 and 3 were specifically focused on Arab and South Asian participants, Study 1 sought to understand mental health among Muslim American young adults more broadly. However, Study 1 participants were primarily Arab or South Asian, limiting our

findings to the perspectives of Arab and South Asian Muslim Americans rather than reflecting more racially / ethnically diverse perspectives. Importantly, several Study 1 participants acknowledged this limitation and highlighted that focus group results may not accurately reflect the experiences of other racial / ethnic groups within the Muslim American community. Lastly, the current dissertation data were collected during the COVID-19 pandemic. As a result, given the timing and context of data collection, the levels of mental health symptoms for the current sample may differ from levels prior to the pandemic, and stakeholders' perspectives on mental health may have changed due to the pandemic.

Appendix D: Survey Measures for Studies 2 and 3

Appendix D.1: Background Questionnaire

Instructions: Please respond to the following questions about your background. You may skip any question that you do not wish to answer.

Eligibility Questions:

Are you between the ages of 18 and 25? (Yes / No)

Do you identify as Muslim? (Yes / No)

Do you identify as Arab, South Asian, or Black? (*Select all that apply:* Arab / South Asian / Black / None)

Do you live in the United States? (Yes / No)

Age (years): _____

Zip code: _____

Gender:
- Male • Female • Trans male / Trans man
- Trans female / trans woman
- Genderqueer / Gender non-conforming
- Not listed (please specify)
- Prefer not to disclose

Sexual Orientation:
- Heterosexual / Straight • Gay • Lesbian
- Bisexual • Queer • Pansexual
- Questioning or Unsure
- Not listed (please specify)
- Prefer not to disclose

Relationship Status:
- Single (never married)
- In a relationship (never married)
- Married
- Widowed
- Divorced
- Separated

Racial / Ethnic Background:
Select all that apply.
- South Asian / Desi
  - Afghanistan
  - Bangladesh
  - Bhutan
  - India
  - Maldives
  - Nepal
  - Pakistan
  - Sri Lanka
  - Not Listed (please specify):
- Arab / Middle Eastern / North African
  - Algeria • Morocco
  - Bahrain • Oman

How do you describe your religious identification?
- Ahmadiyya
- Bohra
- Ismaili
- Nation of Islam
- Salafi
- Shi'a
- Sufi
- Sunni
- Wahabi
- Muslim / Non-denominational Muslim
- Not Listed (please specify):

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Comoros
Djibouti
Egypt
Iraq
Iran
Jordan
Kuwait
Lebanon
Libya
Mauritania
Palestine
Qatar
Saudi Arabia
Somalia
Sudan
Syria
Tunisia
Turkey
United Arab Emirates
Yemen
Not Listed (please specify):

• Black / African American / Afro-Caribbean

Country of origin known: _____
Country of origin unknown

• White / Caucasian / European-American
• East Asian / Southeast Asian
• Spanish / Hispanic / Latinx
• Native American / Alaskan Native
• Native Hawaiian / Pacific Islander
• Not Listed (please specify):
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Highest Level of Education Completed:
• High school or less
• Some college (no degree)
• Associate’s degree
• Bachelor’s degree
• Master’s degree (e.g., MA, MS, MSW, MFA)
• Professional degree (e.g., JC, MD, OD, DO)
• Doctoral degree (e.g., PhD, PsyD, EdD)
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Profession:

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Do you have any children?
• No • Yes
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Generational Status:
• 1st generation (you were born in another country)
• 2nd generation (you were born in the US and at least one parent was born in another country)
• 3rd generation (you and your parents were born in the US; at least one grandparent was born in another country)
• Beyond 3rd generation (you, your parents, and all grandparents were born in the US)
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Appendix D.2: Measure of In-Group Identification (Leach et al., 2008)

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree

(Group-Level) Self-Investment

Solidarity

1. I feel a bond with [In-group].
2. I feel solidarity with [In-group].
3. I feel committed to [In-group].

Satisfaction

4. I am glad to be [In-group].
5. I think that [In-group] have a lot to be proud of.
6. It is pleasant to be [In-group].
7. Being [In-group] gives me a good feeling.

Centrality

8. I often think about the fact that I am [In-group].
9. The fact that I am [In-group] is an important part of my identity.
10. Being [In-group] is an important part of how I see myself.

(Group-Level) Self-Definition

Individual Self-Stereotyping
11. I have a lot in common with the average [In-group] person.
12. I am similar to the average [In-group] person.

In-Group Homogeneity
13. [In-group] people have a lot in common with each other.
14. [In-group] people are very similar to each other.

Appendix D.3: Muslim Identifying Factors (Ashraf & Nassar, 2018)

1. Do you ever use/wear any of the following? Please select all that apply:
    a. Hijab
    b. Beard
    c. Keffiyeh/kufiya/hatta
    d. Abaya/jilbab
    e. Niqab/burqa
    f. Thawb/Thobe/dishdasha
    g. Taqiyah/kufi/prayer cap
    h. No I do not

Appendix D.4: Measure of Racial Categorization for Muslim Prototypicality

1	2	3	4	5	6
Never	Very Rarely	Rarely	Occasionally	Frequently	Always

1. How often have others outside your ethnic group assumed you are White?
2. How often have others in your ethnic group assumed you are White?
3. How often have others outside your ethnic group assumed you are [Arab/South Asian] (*based on participant's identification)*?
4. How often have others in your ethnic group assumed you are [Arab/South Asian] (*based on participant's identification)*?
5. How often have others outside your religious group assumed you are Muslim?
6. How often have other Muslims assumed you are Muslim?

Appendix D.5: Everyday Discrimination Scale (Williams et al., 1997)

0	1	2	3	4	5
Never	Less than once a year	A few times a year	A few times a month	At least once a week	Almost everyday

In your day-to-day life, how often do any of the following things happen to you?

1. You are treated with less courtesy than other people are.
2. You are treated with less respect than other people are.
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 they're better than you are.
8. You are called names or insulted.
9. You are threatened or harassed.

Follow-up question (asked only of those answering "A few times a year" or more frequently to at least one question.):

What do you think is the <u>main</u> reason for these experiences? (*Select one*)

a. Your ancestry or national origins
b. Your gender
c. Your race
d. Your age
e. Your religion
f. Your height
g. Your weight
h. Some other aspect of your physical appearance
i. Your sexual orientation
j. Your education or income level
k. Other (specify): _____

How often do you think the reason for these experiences is due to:

1. Your religion
2. Your race or ethnicity

0	1	2	3	4
Never	Rarely	Sometimes	Often	Always

Which individuals <u>most often treat you unfairly? (*Select one*)</u>

a. Teachers / Professors / School administrators
b. Peers / Fellow students
c. Employers
d. Co-workers
e. Friends
f. Family members
g. Strangers
h. Acquaintances
i. Other: _____

Appendix D.6: State- and Nation-Level Discrimination (Schildkraut et al., 2019)

1	2	3	4	5
None at all	A little	A moderate amount	A lot	A great deal

State-Level

1. How much discrimination is there in [your state] today against your racial/ethnic group?
2. How much discrimination is there in [your state] today against Muslims?

Nation-Level

1. How much discrimination is there in the United States against your racial/ethnic group?
2. How much discrimination is there in the United States against Muslims?

Appendix D.7: Patient Health Questionnaire for Adolescents (PHQ-A; Johnson et al., 2002)

Instructions: How often have you been bothered by each of the following symptoms during the past two weeks?

0	**1**	**2**	**3**
Not at all	Several days	More than half the days	Nearly every day

1. Feeling down, depressed, irritable or hopeless?
2. Little interest or pleasure in doing things?
3. Trouble falling or staying asleep, or sleeping too much?
4. Poor appetite, weight loss or overeating?
5. Feeling tired or having little energy?
6. Feeling bad about yourself – feeling that you are a failure, or that you have let yourself or your family down?
7. Trouble concentrating on things like school, work, reading or TV?
8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual?

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9. In the past year have you felt depressed or sad most days, even if you felt okay sometimes? (Yes / No)

10. If you are experiencing any of the problems on this form, how difficult have these problems made it for you to do your work, take care of things at home or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult

Appendix D.8: Generalized Anxiety Disorder Screener (GAD-7; Spitzer et al., 2006)

Over the last 2 weeks, how often have you been bothered by 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

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	**Somewhat difficult**	**Very difficult**	**Extremely difficult**
☐	☐	☐	☐

Scoring
0-4: Minimal anxiety
5-9: Mild anxiety
10-14: Moderate anxiety
15+: Severe anxiety

Appendix D.9: The CRAFFT+N Questionnaire (Knight et al., 1999)

Please answer all questions **honestly**; your answers will be kept **confidential**.

During the PAST 12 MONTHS, on how many days did you:

1.	Drink more than a few sips of beer, wine, or any drink containing **alcohol**? Put "0" if none.	☐ # of days
2.	Use any **marijuana** (weed, oil, or hash by smoking, vaping, or in food) or "**synthetic marijuana**" (like "K2," "Spice")? Put "0" if none.	☐ # of days
3.	Use **anything else to get high** (like other illegal drugs, prescription or over-the-counter medications, and things that you sniff, huff, or vape)? Put "0" if none.	☐ # of days
4.	Use **any tobacco or nicotine** products (for example, cigarettes, e-cigarettes, hookahs or smokeless tobacco)? Put "0" if none.	☐ # of days

READ THESE **INSTRUCTIONS** BEFORE CONTINUING:
- **If you put "0" in ALL of the boxes above, ANSWER QUESTION 5, THEN STOP.**
- **If you put "1" or higher in ANY of the boxes above, ANSWER QUESTIONS 5-10.**

		No	**Yes**
5.	Have you ever ridden in a **CAR** driven by someone (including yourself) who was "high" or had been using alcohol or drugs?	☐	☐
6.	Do you ever use alcohol or drugs to **RELAX**, feel better about yourself, or fit in?	☐	☐
7.	Do you ever use alcohol or drugs while you are by yourself, or **ALONE**?	☐	☐
8.	Do you ever **FORGET** things you did while using alcohol or drugs?	☐	☐
9.	Do your **FAMILY** or **FRIENDS** ever tell you that you should cut down on your drinking or drug use?	☐	☐
10.	Have you ever gotten into **TROUBLE** while you were using alcohol or drugs?	☐	☐

Appendix D.10: Cumulative Trauma Scale – Short Form (CTS-S; Kira et al., 2008)

Directions: Sometimes things happen to people that are unusually or especially frightening, horrible, or traumatic. The following questions will ask you about some specific events you may have experienced. Please indicate how many times you have ever experienced each event in your lifetime, using the scale below.

0	1	2	3	4
Never	Once	Two Times	Three Times	Many Times

1. I witnessed or experienced natural disasters (e.g., earthquake, hurricane, tornado or flood).
2. I experienced a life-threatening accident (e.g., motor vehicle accidents).
3. I have been involved in or exposed to war or combat.
4. I experienced the sudden death of one of my parents or a close friend or loved ones.
5. I experienced a life-threatening or a permanently disabling event (e.g., cancer, stroke, serious chronic illness or major injury) for loved ones (e.g., parents, close friends).
6. I experienced life-threatening illness or a permanently disabling event (e.g., cancer, stroke, serious chronic illness or major injury).
7. I experienced robbery involving a weapon.
8. I witnessed a severe assault of an acquaintance or stranger (e.g., got shot, stabbed or severely beaten up).
9. I have been threatened to be killed or to be seriously harmed.
10. I have been physically abused, pushed hard enough to cause injury or beaten up by a caretaker (e.g., parent).
11. I witnessed or heard one of my parents or caregivers hitting, hurting and threatening to kill my other parent or caregiver.
12. I was led to sexual contact by someone older than me.
13. I was sexually abused or raped or involved in unwanted sex with one or more persons.
14. I have been jailed and/or tortured.
15. I was put down, threatened or discriminated against by some others' negative attitudes, stereotypes or actions because of my ethnicity, race, culture, religion or national origin.
16. My parents went through divorce and/or separation.
17. My race has a history of being oppressed, discriminated against or threatened by genocide.
18. At least one of my parents or siblings was involved in war, combat, or being tortured.

19. I was uprooted and forced to move from my intimate environment in my town, village, or country.

20. I have been physically attacked (beaten up by another person or group of persons) and caused injury.

21. I was led to sexual contact by one of my caregivers/parents.

22. I was put down, denied my rights, or discriminated against in society (not by family members) because of my gender.

23. I experienced serious rejection or failure in my relationships.

24. I experienced being part of a low-income family with many hardships.

25. I was put down, threatened or discriminated against by some other family members (e.g., parents, siblings) because of my gender.

26. I lived in a community full of violence and criminal activities.

Appendix D.11: Muslim Race-Based Trauma Scale (MRTS)

Directions: These following questions will ask you about some specific events you may have experienced. Please indicate how many times you have ever experienced each event in your lifetime, using the scale below.

0	1	2	3	4
Never	Once	Two Times	Three Times	Many Times

1. I have experienced fear or anxiety of backlash following an attack committed by a Muslim or someone associated with Islam.
2. When there is a terrorist attack or mass shooting in the media, I feared that the perpetrator was Muslim.
3. I have been afraid to be associated with negative Muslim stereotypes (e.g., terrorist).
4. I have experienced (in person, on the news, or online) an attack or aggressive action against a Muslim individual or community.
5. I have experienced (in person or online) an attack or aggressive action against me as a Muslim.

Appendix D.12: Primary Care – PTSD Screen for DSM-5 (PC-PTSD-5; Prins et al., 2016)

Note: The CTS-S and MRTS will be used as the prompt for the PC-PTSD-5. If total scores on CTS-S and MRTS are 0, PC-PTSD-5 will not be administered.

In the past month, have you…

1. had nightmares about the event(s) or thought about the event(s) when you did not want to?
YES NO

2. tried hard not to think about the event(s) or went out of your way to avoid situations that reminded you of the event(s)?
YES NO

3. been constantly on guard, watchful, or easily startled?
YES NO

4. felt numb or detached from people, activities, or your surroundings?
YES NO

5. felt guilty or unable to stop blaming yourself or others for the event(s) or any problems the event(s) may have caused?
YES NO

Appendix D.13: Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993)

1	2	3	4	5
Not at all true	Slightly true	Moderately true	Very true	Completely true

1. I feel like a real part of (my family / the Muslim community / American society).
2. It is hard for people like me to be accepted in (my family / the Muslim community / American society). (*Reverse coded)*
3. Others in (my family / the Muslim community / American society) take my opinions seriously.
4. Sometimes I feel as if I don't belong in (my family / the Muslim community / American society). *(Reverse coded)*
5. There's at least one person in (my family / the Muslim community / American society) I can talk to if I have a problem.
6. People in (my family / the Muslim community / American society) are friendly to me.
7. I am treated with as much respect as others in (my family / the Muslim community / American society).
8. I feel very different from most other people in (my family / the Muslim community / American society). *(Reverse coded)*
9. I can really be myself in (my family / the Muslim community / American society).
10. The people in (my family / the Muslim community / American society) respect me.
11. I wish I were in a different (family / religious community / society). *(Reverse coded)*
12. I feel proud of belonging to (my family / the Muslim community / American society).
13. Other people in (my family / the Muslim community / American society) like me the way I am.