YOUNG MUSLIM ADULTS: FACTORS AFFECTING ATTITUDES TOWARDS UTILIZING MENTAL HEALTH SERVICES

by

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ABSTRACT

YOUNG MUSLIM ADULTS: FACTORS AFFECTING ATTITUDES TOWARDS UTILIZING FORMAL MENTAL HEALTH SERVICES

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The underutilization of mental health services by Muslims in the United States may be attributed to multiple barriers, including inequitable access to care, cultural and language barriers, incongruence between religious beliefs and treatment plans, and societal stigma. Data on the prevalence of mental illness and mental health service utilization for Muslims living in the United States is limited, making it challenging to identify factors that affect attitudes towards seeking treatment. This study evaluated factors that influence attitudes towards utilizing mental health services for young Muslim adults living in the United States. Participants (N=131) completed an anonymous online survey about their attitudes, beliefs, knowledge of, and familiarity with mental illness and mental health services. Results highlighted the importance of knowledge and familiarity with mental health as a significant predictor of attitudes towards mental health service utilization. As predicted, those with traditional cultural beliefs tended to have less favorable attitudes towards utilizing mental health services. Implications for future research and clinical work are included.

Keywords: mental health service utilization, young Muslim adults

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YOUNG MUSLIM ADULTS: FACTORS AFFECTING ATTITUDES TOWARDS UTILIZING FORMAL MENTAL HEALTH SERVICES

Essential mental health services, such as psychopharmacological medication, psychotherapy, and inpatient and outpatient services, are largely underutilized by minoritized racial and ethnic groups in the United States (Sabado et al., 2023). According to the National Institute of Mental Health (NIMH), less than half (47.2%) of adults with mental illnesses received mental health services in the past year (NIMH, 2021). Data from the Substance Abuse and Mental Health Services Administration (SAMHSA) indicated that a majority (65.8%) of adults in the United States who are receiving mental health services identify as White (SAMHSA, 2020). Accessing mental health services may be challenging for racial and ethnic minorities due to cultural and language barriers, religious beliefs/differences in treatment, and societal stigma (Sabado et al., 2023). Limited data exists regarding the prevalence of mental illness and mental health service utilization within the Muslim American population due to numerous factors. For instance, Muslim Americans tend to be grouped with other racial or ethnic groups, such as Arab Americans and African Americans, which does not capture the intersectional complexity of this demographic (APA, 2018; Laird et. al., 2007). Although Muslims comprise 1.1% of the population in the United States and largely identify as first or second-generation immigrants, many current studies fail to account for the intersectional nuance present in the Muslim American community, which widens the gap in obtaining equitable resources (Mogahed et. al., 2022; Pew Research Center, 2017).

Muslims in the United States reportedly experience greater rates of violent hate crimes, religious discrimination, and religious harassment which have exacerbated in the post-9/11 climate. The persistent exposure to societal and interpersonal forms of Islamophobia has placed Muslims in the United States at a heightened risk for developing anxiety disorders, depression,

and posttraumatic stress disorder (Ahmed & Reddy, 2007; Sabado et al., 2023). Despite the rise of mental health concerns, Muslims in the United States remain reluctant to seek mental health care due to fear of discrimination, mistrust in healthcare providers, and other access barriers including language and cultural differences (e.g., requiring a translator, differing identities between therapist and client, etc.; Khan et al., 2019). Advances have been made to rectify these concerns through a growing body of literature focused on Islamic psychology and spiritually integrated psychotherapy practices (Khan et al., 2019). However, hesitation and perceived difficulty in finding culturally competent mental health services remains prevalent within the Muslim American community (Khan at al., 2019). Some Muslim Americans may be skeptical of Western mental health practices and may be concerned that these providers will have conflicting perspectives on the role of Islamic beliefs and values in day-to-day life. For example, non-Muslim Western providers may not understand the relevance of integrating Islamic beliefs into holistic care or may not understand Islamic concepts (e.g., modesty and gendered expectations) that may differ from Western values (Khan et al., 2019).

Additionally, both religious and cultural beliefs about the causes of mental illness or psychological disorders may impact Muslims' attitudes towards seeking professional help for such problems. Some Muslims may perceive mental health problems as being "part of human suffering or as trials and tests from Allah [God]," in addition to being a purification event for the body (Rassool, 2000). Hence, Muslims may adopt alternative healing practices (e.g., spiritual healing using the Qur'an) as opposed to seeking formal mental health services for treatment. It is important to note that although there are guiding principles in the Islamic faith, there is ample variety in the cultural practice of these principles. While stereotypically Islam is thought of as an Arab religion, many Muslim American immigrants originate from Africa, Eastern Europe,

Russia, China, and South Asia (Haque, 2004). Given the wide spectrum of diversity in the racial and ethnographic composition of the Muslim population in the United States, there are cultural differences that must be considered across distinct groups' interpretations of some aspects of the Islamic faith (Ahmed & Reddy, 2007; Khan et al., 2019). Thus, Muslim Americans may struggle to find mental health professionals due to a lack of cultural competency and a lack of awareness of the heterogeneity of Muslim beliefs (Rassool, 2015). While more attention has been directed towards evaluating the mental health consequences of the post-9/11 climate on Muslim Americans, little research has contributed to adapting or developing interventions that are aligned with the values and beliefs of Muslims. Given that traditional Western psychotherapy approaches are based on individualistic culture and Muslim communities tend to align more with collectivistic culture, Muslim patients have reported fearing their values will be ignored or undermined in traditional counseling settings (Rassool, 2015). Studies using religious psychotherapy to treat Muslim clients with anxiety and depression disorders have found that patients in religious psychotherapy groups improved at significantly higher rates than Muslim clients receiving standard psychotherapy treatment (Azhar & Varma, 1995a; Razali et. al., 1998). This is also why Muslims have tended to favor seeking counseling and other psychological treatment from mental health professionals who are Muslim or have a good understanding of Islam (Rassool, 2015).

In recent years, there has been an increase in Islamic psychology literature exploring how existing therapeutic models designed to promote wellbeing in diverse groups can be applied to Muslims. For example, Tanhan (2019) proposed the use of Acceptance and Commitment Therapy (ACT) with Ecological Systems Theory (EST) to provide psychological counseling that considers all macro- and micro-system contextual factors that affect Muslims on both a

community and individual level to deliver more effective treatments. However, there remains a gap between literature on Islamic psychology and the integration of spirituality in clinical interventions in terms of encouraging utilization of mental health services.

Conceptualization of Mental Illness in Islam

Islamic conceptualization of mental illness has historically been drawn from three main categories: 1) teachings from the Qur'an and sunnah (prophetic stories/traditions), 2) theoretical models posed by Islamic philosophers and scholars, and 3) individual Muslim perspectives and cultural beliefs (Bagasra & Mackinem, 2014; Tanhan & Young, 2022). Traditionally, Islam conceptualizes mental illness as being rooted in psycho-spiritual causes related to one's spiritual relationship with God and Muslims often view illnesses as a test from God. In Quranic verses and prophetic tradition, mental illness has sometimes been connected to supernatural causes, such as the jinn (devil) or evil eye (source of envy and jealousy). While certain cultural beliefs about mental health problems may be rooted in supernatural causes, cultural beliefs about mental health treatments/services may include spiritual treatment through prophetic medicinal traditions, reciting specific prayers, and giving charity. Islamic psychology literature has thus adopted a multidimensional model for the causation and treatment of mental illness to recognize social, biological, and spiritual causes (Tanhan, 2019). Differences in individual Muslim perspectives of mental illness are usually due to variations in theological schools of thought and sometimes a lack of knowledge of the demonstrated social or biological causes of mental illness (Bagasra & Mackinem, 2014; Khan et. al., 2019; Tanhan & Young, 2022). The scope of this study examined the culturally relevant beliefs Muslims have about both mental health problems and mental health services. The conceptual framework of this study draws from a literature review of over

300 research papers on Muslim mental health which illustrated the multifaceted factors that may influence attitudes towards seeking mental health services (See Figure 1).

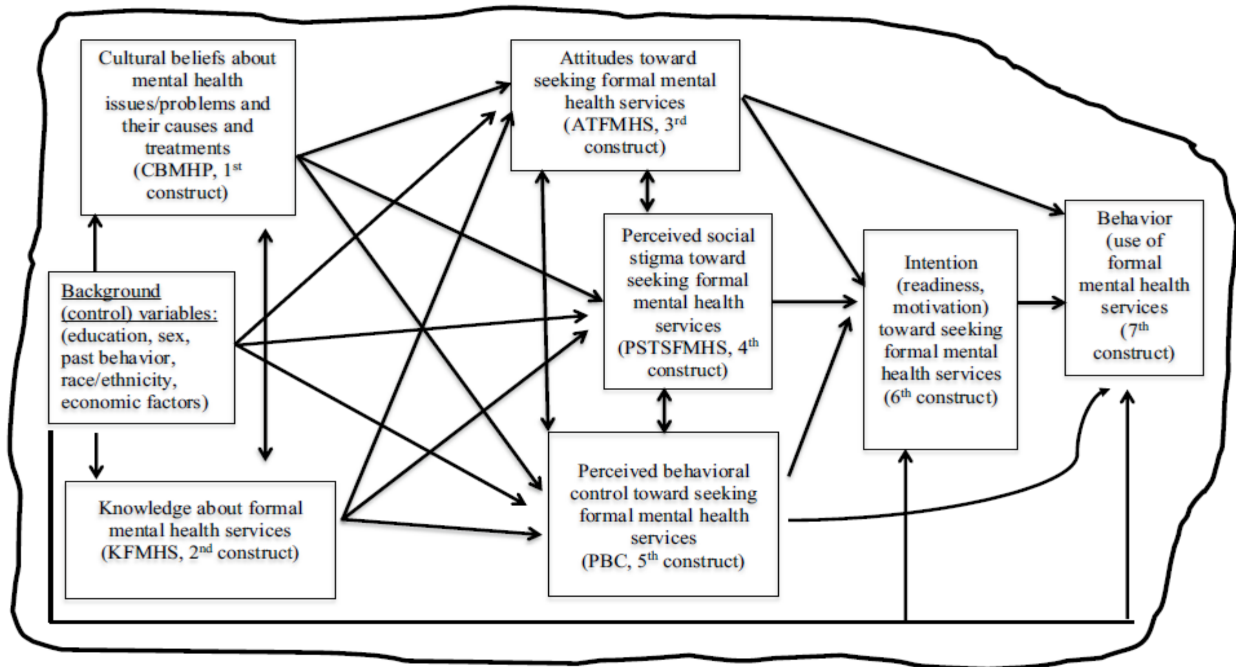

Figure 1. "The Proposed Contextual (Conceptual) Framework: Muslims' Approach to Use of Mental Health Services" (Tanhan & Young, 2022)

Notably, the authors did not identify any studies that contained established theoretical models for conceptualizing the utilization of mental health services in Muslim American populations specifically. Prior research has shown that Muslims with more culturally traditional beliefs about the causes of mental illness and more shame towards mental illness tend to be less favorable towards seeking mental health services (Tanhan & Young, 2022). Additionally, Muslim Americans with mental health concerns who are at risk for low help-seeking behaviors tend to favor seeking religious guidance over professional psychological help (Aloud & Rather, 2009; Khan et. al., 2019). The present study draws from the conceptual map presented in Figure 1 as a guide to narrow down the factors influencing help-seeking attitudes in young Muslim

adults in the United States by assessing attitudes, beliefs, and familiarity/knowledge about mental health problems and services.

Drawing on Figure 1, the current study focused on specific factors identified as playing a role in Muslims' approach to using mental health services. First, cultural beliefs about mental health problems include beliefs about the cause and treatment of mental illness, and these beliefs can be rooted in either or both Islamic and other cultural traditions (Tanhan & Young, 2022). Beliefs specific to treatment of mental illness may include seeking faith-based treatment through religious practices such as prayer and reciting the Qur'an. Second, knowledge about formal mental health services refers to how much Muslims know about mental illnesses, the role of various mental health providers, existing interventions/treatments, and the availability of relevant services in their communities (Aloud & Rather, 2009; Tanhan & Young, 2022). The authors also highlight that Muslim immigrants are less likely to have formal mental health services in their home countries, so there may be even less of a basis for familiarity with services in the United States (Tanhan & Francisco, 2019). The third and last factor the current study focused on is attitudes towards seeking formal mental health services. This refers to the negative attitudes Muslims may have towards seeking services, especially due to previously mentioned factors such as, perceived stigma and cultural barriers (Aloud & Rather, 2009; Tanhan & Francisco, 2019). Moreover, Muslims who hold these negative attitudes are less likely to even consider mental health services as being beneficial because they do not ever consider them a resource for treatment (Tanhan & Francisco, 2019). Following this conceptual framework, the current study examined Muslims' attitudes and beliefs towards seeking mental health services, while being mindful of the influence of various demographic characteristics and institutional barriers.

Young Muslim Adults & Mental Health

Acculturative stress and minority stress theory have been primary focuses in Muslim mental health research for several decades, with recent attention placed on recognizing cultural practices and considerations in psychotherapy (Ahmed & Reddy, 2007; Stuart & Ward, 2018). Young Muslim adults in the United States represent a vulnerable population due to pressures surrounding cultural identity formation at a developmental age where they emerge as independent. In addition, younger Muslims who have lived most of their lives post 9/11 are at higher risk of having internalized Islamophobia due to their religious identity being negatively portrayed in the media and political rhetoric in comparison to older Muslims (Mogahed et. al., 2022). According to the 2022 American Muslim Poll, 69% of younger Muslims reported facing religious discrimination in the past year (Mogahed et. al., 2022). The existing limited literature on young Muslim adults in the United States has assessed patterns of cultural identification and religiosity, with contradicting findings on the relationship between age and adherence to cultural beliefs (Britto & Amer, 2007). Literature on cultural identity specifically has shown that most young Arab Muslim adults in a suburban city identified as being moderately bicultural (in adherence to Arab and American culture) and this group was at the highest risk for having low family support and more acculturative stress (Britto & Amer, 2007). Other research has found that as age of participants increased, their adherence to cultural beliefs decreased and some researchers have demonstrated that this is dependent on multiple factors, including level of education and socioenvironmental factors (i.e., socioeconomic status, geographical location; Sirin et. al., 2008; Nguyen, 2017; Khan et. al., 2019). Nonetheless, even with evidence of the substantial risk for acculturative stress in young Muslim adults, no prior literature has examined

how cultural beliefs about mental health problems and services may influence young Muslim adults' attitudes towards utilizing formal mental health services.

Regarding Muslim adults in the United States more broadly, it is evidenced that adults with mental health concerns who are at risk for low help-seeking behaviors tend to favor therapists of a similar background, therapy in a mosque setting, group therapy, or through collaboration with an Imam (Islamic religious leader; McLaughlin et al., 2022). In a single study on mosque support for young Muslim adults, it was found that having access to social support in congregant settings promoted positive self-esteem (Nguyen, 2017). Therefore, given the limited access to Islamic resources in some parts of the United States, it is important to capture how this socioenvironmental context may be related to young Muslim adults' cultural beliefs and attitudes towards seeking mental health services.

Sense of Belonging & Mental Health

According to Maslow (1954), sense of belonging is one of the five basic human needs, ranking it third in his hierarchy after physiological needs and safety and security. A sense of belonging is thus thought to be an essential component of social and psychological wellbeing that contributes to overall quality of life. Previous literature has examined the association between sense of belonging and mental/emotional wellbeing, with findings indicating that lower belonging is often associated with more mental health concerns, including depression and stress (Hagerty et al., 1992; Hagerty et al., 1996; Hagerty & Williams, 1999). Further, most literature has measured sense of belonging on a regional or institutional level (e.g., college students' belonging to their university, etc.; Kitchen et al., 2012b). For example, a study conducted on sense of community belonging and health in Canada found that individuals who had more sense of belonging had on average more positive mental health outcomes and better access to

healthcare services than individuals who were disconnected from their communities (Kitchen et al., 2012a). One of the factors identified as contributing to more belonging in the study was access to religious services (Kitchen et al., 2012a). While these studies measured sense of belonging and its association with broader health outcomes, the present study expanded on this by examining sense of belonging to one's religious community and its effects on attitudes towards seeking mental health care.

Aims

The aim of this study was to assess the factors that influence attitudes towards seeking and using formal mental health services for young Muslim adults living in the United States. The specific goals of this study were:

1. To evaluate cultural and religious factors that affect attitudes towards seeking and using formal mental health services for young Muslims adults (ages 18-35) in the U.S. The researchers hypothesized that young Muslim adults who have less familiarity with mental health services, less knowledge about mental health problems, and more traditional beliefs about mental health problems will also have more negative attitudes (e.g., shame) towards utilizing mental health services.
2. To evaluate whether sense of belonging to one's Muslim community influences attitudes towards seeking formal mental health services. The researchers hypothesized that young Muslim adults who have a stronger sense of belonging to their local Muslim community will have fewer negative attitudes (e.g., shame) towards utilizing formal mental health services.

Method

Participants

This research was approved by the University of Wisconsin-Milwaukee Institutional Review Board (IRB) prior to data collection. Participants were primarily recruited through convenience sampling methods. Recruitment occurred through various community and professional email listservs, mosques, and Muslim organizations (e.g., Muslim Student Associations at different universities). Participants had to meet the following inclusion criteria, (a) identify as Muslim, (b) age 18-35, (c) currently reside in the U.S, and (d) English-proficient in reading and writing. Of note, the age range of 18-35 was determined for this study based on prior research on young Muslim adults that found an average age of participation to be 27 or 28 using the age range of 18-35 (Britto & Amer, 2007; Aloud & Rather, 2009; Khan et. al., 2019).

Procedure

The questionnaire for this study was based on a previously developed measure by Aloud and Rather (2009), "Factors Affecting Attitudes Towards Seeking and Using Formal Mental Health Services". This measure was originally conceptualized using the mental health help-seeking pathways of Arab Muslims (HSPAM) model and was used to measure attitudes of Arab Muslims living in a large, midwestern city (Aloud & Rather, 2009). Then, researchers at the Khalil Center in Illinois evaluated the measure and used it to assess attitudes of Muslim adults attending a national conference in Chicago (Khalil et. al., 2019). In addition to this validated measure, the present study will include a short subset of questions, written by the research team, consisting of two clinical psychologists and one clinical psychology doctoral student, measuring sense of belonging to one's current local Muslim community.

Measure

An online survey via Qualtrics consisting of 71 questions was administered. The survey took approximately 15 minutes to complete and was written at an 8/9th grade reading level per

the Flesch-Kincaid Grade Level index. Eligibility was determined prior to starting the survey based on the aforementioned inclusion criteria. If participants were deemed not eligible, they were redirected to the end page. If participants were deemed eligible, they were directed to the survey which began with informed consent, where participants consented to participation. Definitions written by the research team of "psychological or mental health problems" and "professional mental health or psychological services" were also provided at the start of each section for participants to reference as needed. The survey questions were split into the following sections:

1. *Demographic questions*: gender, age, zip code, marital status, level of education, annual income, occupation, born in the US or not, country of origin, length of residency in US, number of visits to medical doctor and mental health professional, percentage of neighborhood estimated to be Muslim, importance of religion, type of Muslim/sect of Islam, type of health insurance, and rankings of help-seeking preferences for mental health/psychological counseling.

2. *Attitudes toward seeking professional mental health or psychological services*: 20 questions on a 4-point Likert scale (1= "strongly disagree", 2= "disagree", 3= "agree", 4= "strongly agree"; Cronbach's $\alpha = .822$). Higher scores on this measure indicated more negative attitudes towards utilizing mental health services (items were reverse coded as needed). A sample item includes "I would feel embarrassed to tell others that I used psychological or mental health services."

3. *Beliefs about mental health or psychological problems, their causative factors, and treatments*: 11 questions on a 4-point Likert scale (1= "false", 2= "probably false", 3= "probably true", 4= "true"; Cronbach's $\alpha = .617$). Higher scores on this measure

indicated having more traditional beliefs about mental health problems and treatments (items were reverse coded as needed). A sample item includes "Mental health or psychological problems can be caused by "*Jinn*" (spirits)."

4. *Knowledge and familiarity with mental health and psychological disorders, types of formal services, and mental health providers*: 11 questions on a 4-point Likert scale (1= "nothing", 2= "very little", 3= "some", 4= "a great deal"; Cronbach's α = .903). Higher scores on this measure indicated more knowledge/familiarity with mental health problems and the mental health delivery system in the U.S. A sample item includes "How familiar are you with the psychologist's role in mental health and psychological counseling settings?."

5. *Sense of belonging to current local Muslim community*: 4 questions on a 5-point Likert scale (1= "not at all connected/aligned/involved/open", 2= "slightly connected/aligned/involved/open", 3= "somewhat connected/aligned/involved/open", 4= "quite connected/aligned/involved/open", 5= "extremely connected/aligned/involved/open"; Cronbach's α =.834). Higher scores on this measure indicated more sense of belonging to one's Muslim community. A sample item includes "My personal beliefs/values align with my current local Muslim community."

Design Considerations & Limitations

The Qualtrics survey was administered in English. The current research team did not include any qualified interpreters or translators that could have translated and validated the survey in other languages. Although the Qualtrics software can translate questions into several languages, the research team was worried that meanings of relevant terms would be lost in translation and the wording of certain questions would not be linguistically accurate or culturally

appropriate. Thus, since the survey was in English, a segment of the Muslim population that is non-English speaking was excluded from the study, and as such the study is missing the perspectives of those individuals who may include, but are not limited to, recent immigrants and refugees. To fill this gap, the research team hopes that translators and interpreters can be recruited for follow-up studies to be conducted in other languages.

Another limitation of the study is that stigma surrounding mental health within the Muslim community may have been a barrier to engaging Muslims in participating in the study. Community members may experience feelings of discomfort or distress in answering personal questions related to mental health. To ensure the language of the survey was appropriate and respectful, two Muslim community members reviewed the survey: an Islamic school principal and a founder of a nonprofit Muslim organization. No additional recommendations were made, so the survey was deemed appropriate for administration. Through support from these community leaders and the anonymous format of the survey, individuals were more encouraged to be open about voicing their beliefs about mental health services. Additionally, participants were periodically reminded throughout the survey that they can choose to skip any questions or quit the survey at any time, and a list of mental health resources was provided at the end of the survey.

Results

Data was analyzed using IBM's Statistical Package for the Social Sciences (SPSS v 29.0.1). Variables were examined for missing data and inaccurate responding on the attention check question. A total of 16 participants were excluded from analysis for not falling in the 18-35 age range (15) and for missing data (1). A final sample of 131 participants was included for

data analysis. Descriptive analyses were run on all demographic variables. A summary of these analyses is in Table 1.

Responses to the attitudes, beliefs, knowledge/familiarity, and sense of belonging scales are summarized in Table 2, including the means, standard deviations, and ranges of responses. Reverse coding was completed for applicable items in each section. Higher scores on the attitudes scale indicated a more negative attitude towards seeking and using formal mental health services, while higher scores on the beliefs scale indicated more culturally traditional beliefs about mental health. Young Muslim adults had a low negative attitude towards seeking and using formal mental health services ($m = 2.27$, $SD = 0.37$), while also appearing to hold less culturally traditional beliefs about mental health ($m = 2.44$, $SD = 0.33$) on average. Participants also showed lower levels of knowledge of or familiarity with mental health problems and services ($m = 2.57$, $SD = 0.67$) on average. For sense of belonging to one's Muslim community, participants on average appeared to feel like they very much belonged to their community ($m = 3.27$, $SD = 0.93$).

Analyses were conducted using Spearman's rho to assess correlations between the four variables because the data was nonnormally distributed (Table 3). Young Muslim adult attitudes towards utilizing formal mental health services were significantly correlated with cultural beliefs about mental health and knowledge about and familiarity with mental health problems and treatments. Attitudes were positively correlated with cultural beliefs about mental health meaning that young Muslim adults who more negatively perceive utilizing formal mental health services are likely to hold more culturally traditional beliefs about mental health problems, causes, and treatments. On the other hand, attitudes were negatively correlated with knowledge and familiarity meaning that young Muslim adults who more negatively perceive utilizing formal

mental health services are likely to be less knowledgeable and familiar with mental health problems and treatments. There was no significant correlation between attitudes and sense of belonging; however cultural beliefs about mental health were positively correlated with sense of belonging indicating that young Muslim adults who hold more culturally traditional beliefs about mental health are likely to have a strong sense of belonging to their Muslim community. These participants likely spend more time with their communities and thus share and feel more connected to similar beliefs and values about mental health that are rooted in Islam.

Correlational analyses were also run between demographic variables and attitudes towards seeking services, cultural beliefs, knowledge/familiarity, and sense of belonging. These results are presented in Table 4. Attitudes towards seeking mental health services were significantly negatively associated with age, level of education, number of medical visits, and number of mental health visits. Cultural beliefs about mental health problems and treatments were significantly positively correlated with the estimated percentage of a neighborhood to be Muslim and the importance of religion. Knowledge about and familiarity with mental health services had significant positive associations with level of education, as well as number of mental health visits. Sense of belonging was negatively correlated with age and positively correlated with importance of religion.

To answer the question “Among young Muslim adults, which of the following variables best explains individual attitudes towards utilizing mental health services: a) cultural beliefs about mental health problems and treatments, b) knowledge/familiarity with mental health problems and treatments, or c) sense of belonging to one’s Muslim community?”, dominance analysis (DA) was used. DA is a statistical method that considers all relevant subset models that can be created from the predictors of a given model, making it a sensitive approach to observing

the various patterns of dominance that can emanate across the models and therefore provide a generalized context for defining dominance among a set of predictors (Azen & Budescu, 2003). Thus, DA was preferred for this study over a multiple regression analysis, where a specific "correct" model would have to be set based on theoretical reasoning (Azen & Budescu, 2003). To conduct the DA, a regression analysis was run for each possible subset model and the additional contribution of each predictor was calculated based on the increase in the proportion of variance that results from adding a given predictor to the regression model. In this analysis, since demographic variables were used as a control variable, this variable was added in all the subset models and its R^2 was subtracted from all the reported values in the additional contribution columns to account for the proportion of variance that results from adding demographics to any given regression model. Then, the average of additional contribution is calculated for each predictor for each model size, *k*, which is based on the number of predictors included in each model to observe across all subset models which predictor is the most dominant. Complete dominance is established when a predictor has larger additional contributions across all models compared to a given predictor.

Results of the DA are presented in Table 5. Based on the findings of the additional contributions, the general order of dominance would be 1) knowledge/familiarity, 2) cultural beliefs, then 3) sense of belonging. Knowledge/familiarity completely dominated cultural beliefs and sense of belonging, while cultural beliefs completely dominated sense of belonging. Thus, knowledge about and familiarity with mental health problems and treatments is the most robust predictor of young Muslim adults' attitudes towards seeking and utilizing mental health services. Sense of belonging is the weakest predictor across all subset models.

Discussion

Results from this study revealed that on average, young Muslim adults have a more positive attitude towards utilizing mental health services than expected. The hypotheses of this study on the relationship between negative attitudes towards seeking mental health services, more culturally traditional beliefs about mental health, and less knowledge/familiarity with mental health services were supported. Young Muslim adults with more negative attitudes towards utilizing mental health services tended to hold more culturally traditional beliefs and had lower knowledge about and familiarity with mental illnesses and treatments. These findings fit into the conceptual framework in Figure 1, where cultural beliefs and knowledge/familiarity are significantly associated with attitudes towards seeking services (Tanhan & Young, 2022). Examining the remaining variables in the framework, especially perceived social stigma, and perceived behavioral control towards seeking formal mental health services, could provide more insight into barriers faced by young Muslim adults in accessing mental health services (Tanhan & Young, 2022).

Another prominent finding of this study is that young Muslim adults rated highly on both importance of religion and sense of belonging; two variables that are related to one's connectedness to their Muslim community. Hence, with religion being central to young Muslim adults, leaders in the Muslim community ought to recognize the unique perspectives of this population on the intersectionality between religion, spirituality, cultural beliefs, and mental health. Specifically, psychoeducation on Islamic psychology and broader Islamic concepts surrounding mental health and wellbeing should be encouraged in community spaces, such as in mosques. Engaging the community in these activities can range from trainings for community leaders through workshops to hosting a *halaqa* (religious gathering) or giving a Friday *khutbah*

(sermon) on various mental health topics that are relevant to the community's needs. These spaces would then equip community members with the skills and knowledge they need to access and be more willing to utilize formal mental health services. Additionally, these mental health services can also be built into existing infrastructures of Muslim community centers and organizations.

Pertaining to the clinical implications of this study, the findings support the need for mental health providers who are not members of the Muslim community to seek education and training on Islamic practices and values that may be relevant in treatment. From a multicultural lens, mental health providers seek to integrate these values with evidence-based interventions to better fit the needs of their Muslim patients to promote positive mental health outcomes. Further, an emphasis on spiritual and religious competencies is needed within broader cultural competency training for mental health providers to increase service access and engagement with minoritized religious populations in the United States. In addition, since some Muslims may prefer integrating Islamic healing practices into their care and receiving both spiritual and psychological guidance, mental health clinicians could enhance collaboration with Muslim faith leaders, such as Imams. Approaching mental healthcare from a more holistic perspective that integrates both religious and spiritual needs into mental health treatment may be efficacious for Muslim patients (Ahmed & Reddy, 2007; Aloud & Rathur, 2009; Tanhan & Francisco, 2019; Tanhan & Young, 2022).

Lastly, the results of this study point to important directions for future research. Out of all the variables examined, knowledge and familiarity were the most robust predictors of attitudes towards seeking mental health services in young Muslim adults. Future studies could examine the specific knowledge needed for young Muslim adults to make more informed decisions

regarding their mental health treatment. For example, an intervention could be developed aimed at increasing knowledge about and familiarity with mental health treatment tailored to the needs of the Muslim population and assess the impact on future mental health service utilization. Longitudinal studies could document whether young Muslim adults choose to seek mental health treatment (e.g., medication, psychotherapy) in the future. Ultimately, the results from this study lay the foundation for future directions in clinical work and research that may enhance mental health service utilization for the Muslim community in the United States.

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Tables

Table 1. *Descriptive Statistics for Young Muslim Adults (N=131)*

Variable	Frequency	Percent
Gender		
Man	35	26.7
Woman	96	73.3
Age (18-35)	131	
Mean = 23.82		
SD = 4.30		
Born in the US		
Yes	90	68.7
No	41	31.3
Race/Ethnicity		
African	10	7.6
African American	4	3.1
Arab/Middle Eastern	74	56.5
Hispanic/Latino	2	1.5
Iranian	1	0.8
Turkish	1	0.8
South Asian	47	35.9
Other Asian	2	1.5
White/Caucasian	5	3.8
Other	1	0.8
Percentage of neighborhood estimated to be Muslim		
0-25%	114	87.0
25-50%	11	8.4
50-75%	3	2.3
75-100%	3	2.3
Marital Status		
Single	98	74.8
Married	26	19.8
Partnered	5	3.8
Divorced	1	0.8
Missing	1	0.8
Highest/current level of education		
High school graduate	6	4.6
Some college	28	21.4
2 year/Associate's	6	4.6
4 year/Bachelor's	58	44.3
Professional/doctorate	33	25.2
Occupation		
Student	69	52.7
Professional/admin	25	19.1
Office employee/support staff	18	13.7

Manual worker	1	0.8
Housewife/husband	3	2.3
Personal business	2	1.5
Unemployed	3	2.3
Other	10	7.6
Household Income		
Less than 40k	19	14.5
40k to 50k	13	9.9
50k to 60k	4	3.1
60k to 70k	9	6.9
More than 70k	86	65.6
Physical Health Visits (in the past 3 years)		
Never	14	10.7
1 or 2 times	52	39.7
3 to 5 times	36	27.5
More than 5 times	29	22.1
Mental Health Visits (in the past 3 years)		
Never	83	63.4
1 or 2 times	14	10.7
3 to 5 times	5	3.8
More than 5 times	29	22.1
Lifetime Experiences of Islamophobia in Healthcare		
Never	63	48.1
1 or 2 times	22	16.8
3 to 5 times	5	3.8
Missing	41	31.3
Health Insurance		
None	2	1.5
Medicaid	24	18.3
Medicare	14	10.7
Commercial/Group	91	69.5
Religion Importance		
Not at all important	1	0.8
Slightly important	5	3.8
Moderately important	17	13.0
Very important	33	25.2
Extremely important	75	57.3
Sect of Islam		
Sunni	124	94.7
Shi’a	4	3.1
Other	2	1.5
Prefer not to respond	1	0.8

Table 2. *Mean Responses to Attitudes, Beliefs, Knowledge/Familiarity, & Sense of Belonging Scales (N=131)*

	Attitudes	**Beliefs**	**Knowledge/Familiarity**	**Sense of Belonging**
Mean*	2.266	2.444	2.574	3.271
SD	.367	.328	.666	.931
Range	1.21-2.95	1.67-3.33	1.27-3.91	1.00-5.00

*Refer to Methods section for Likert scales used for mean scores

Table 3. *Spearman's rho Correlation Matrix (N=131)*

Variables	Attitudes	Beliefs	Knowledge/ Familiarity	Sense of Belonging
Attitudes	-	**.243***	**-.428***	-.051
Beliefs	**.243***	-	-.097	**.282***
Knowledge & Familiarity	**-.428***	-.097	-	.078
Sense of Belonging	-.051	**.282***	.078	-

**Note: p < 0.01*

Table 4. *Correlations Between Demographic Variables and Attitudes, Cultural Beliefs, Knowledge/Familiarity, & Sense of Belonging*

	Age	*% Neighbor-hood estimated to be Muslim*	*Level of education*	*Annual household income*	*# of medical doctor visits*	*# of mental health visits*	*Experiences of Islamophobia in healthcare*	*Importance of religion*
Attitudes towards seeking services	**-.287****	.155	**-.236****	-.094	**-.186***	**-.283****	-.039	.084
Cultural Beliefs	-.075	**.185***	-.166	.005	-.047	-.104	.136	**.403****
Knowledge /Familiarity	.150	-.088	**.183***	.010	.093	**.429****	.087	-.008
Sense of Belonging	**-.206***	.120	-.139	-.027	-.012	-.069	.057	**.453****

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

Table 5. *Dominance Analysis for Predicting Attitudes Towards Seeking & Utilizing Mental Health Services*

		Additional contribution of:		
Subset model (X)	$R^2_{Y\text{-}X}$	**Beliefs**	**K/F**	**SB**
k = 1 average (DEM)	0.087*	0.065	0.135	0.002
DEM, Beliefs	0.152		0.121	0.014
DEM, K/F	0.222	0.051		
DEM, SB	0.089	0.077	0.133	
k = 2 average		0.064	0.127	0.014
DEM, Beliefs, K/F	0.273			0.005
DEM, Beliefs, SB	0.166		0.112	
DEM, K/F, SB	0.222	0.056		
k = 3 average		0.056	0.112	0.005
DEM, Beliefs, K/F, SB	0.278			
Overall average		0.091	0.154	0.036

Note: DEM = Demographic variables (age, gender, income, and highest level of education) were added as a control; K/F = Knowledge/Familiarity; SB = Sense of Belonging; *R^2 of DEM (0.087) was subtracted from all reported values in the additional contribution columns to account for the variance contributed by the demographic variables.

Appendix A: Attitudes Survey

DEFINITIONS

Psychological or mental health problems: terms used to describe changes in an individual's mood, feelings, thoughts, and behaviors, sometimes as a reaction to a stressful event. These terms are also used to refer to disorders such as depression and anxiety. Help for these problems may take the form of counseling or therapy, drug treatment, and/or lifestyle changes.

Professional mental health or psychological services (professional help): clinics within a community, hospital, or school where practitioners, such as therapists, psychologists, psychiatrists, or clinical social workers, provide professional services to work with individuals or families to help overcome psychological or mental health problems.

SECTION I

Please respond to the following questions as accurately as possible. It is very important that you do your best to respond to every item. Please remember that no name or other identifications are asked, so no one will know that this information belongs to you.

1. **What is your gender?**

1.__Man 2. __Woman 3. __I identify in a way other than man or woman (please specify)

2. **What is your current age in years?**

____

3. **What is your race/ethnicity? Select ALL that apply.**

1. African 2. African American 3. Arab/Middle Eastern 4. Hispanic/Latino 5. Iranian 6. Turkish 7. South Asian 8. Other Asian 9. White/Caucasian 10. Other (please specify) 11. Prefer not to respond

4. **What is your current zip code?**

____

5. **Were you born in the United States of America?**

1.__Yes 2. __No

6. **What is your (or your family's) country of origin (e.g., Palestine, Pakistan, Somalia, etc.)?**

____

7. **How many years/months have you lived in the U.S.?**

Year/s ____ Month/s____

8. **What percentage of your current neighborhood would you estimate to identify as being Muslim?**

1.__0-25% 2. __25-50% 3. __50-75% 4. 75-100%

9. **What is your current marital status?**

1.__Single 2. __Married 3. __ Partnered 4. __Divorced 5. __Widowed

10. What is your highest (or current) level of education?

1.__Less than high school 2. __High school 3. __Associate degree

4. __Bachelor's degree 5. __ Master's degree 6. __ Doctorate degree

11. Which of the following describes your occupation?

1.__Professional / administrator 2. _Student 3. __ Unemployed

4.__Office employee / support staff 5. _Manual worker 6. __ Housewife

7.__Personal business 8. _Other (specify)____________________

12. Which category best matches your family's annual income (in US dollars)?

1.__Less than 10, 000 2. __10,000-19,999 3. __20,000-29,999 4. __30,000-39,999

5.__40,000- 49,999 6. __50,000- 59,999 7. __60,000-69,999 8. __70,000 or more

13. In the past three years, approximately how many times have you visited a medical doctor for a *physical* health concern?

1.__Never 2. __1 or 2 times 3. __3 to 5 times 4. __More than 5 times

14. In the past three years, approximately how many times have you visited a mental health professional (psychiatrist, psychologist, or a clinical social workers) for a *mental health or psychological* concern?

1.__Never 2. __1 or 2 times 3. __3 to 5 times 4. __More than 5 times

15. Have you ever experienced discrimination/Islamophobia in a health care setting (i.e., hospital, medical clinic, doctor's office, mental health facility, etc.)?

1.__Never 2. __1 or 2 times 3. __3 to 5 times 4. __More than 5 times

16. What type of health insurance do you have?

1.__No health insurance 2. __Medicaid 3. __Medicare 4. __Commercial / Group

17. Because of the lack of health insurance, I am unable to receive quality health care.
1.__Yes 2. __No 3. _Prefer not to respond

18. To whom would you go First if you were to consider seeking outside help for mental health/psychological counseling (select only one)?

1.__Mental health professional 2. __ Family doctor (M.D.) 3.__ Close friend

4.__Sheik / Imam (to obtain a *Ruqia*) 5. __ Family member (e.g., father, etc.) 6.__ Nobody

19. To whom would you go Second if you were to consider seeking outside help for mental health/psychological counseling (select only one different from question # 55)?

1.__Mental health professional 2. __ Family doctor (M.D.) 3.__ Close friend

4.__Sheik / Imam (to obtain a *Ruqia*) 5. __ Family member (e.g., father, etc.) 6.__ Nobody

20. To whom would you go Third if you were to consider seeking outside help for mental health/psychological counseling (select only one different from question # 55 and 56)?

1.__Mental health professional 2. __ Family doctor (M.D.) 3.__ Close friend

4.__Sheik / Imam (to obtain a *Ruqia*) 5. __ Family member (e.g., father, etc.) 6.__ Nobody

21. How important is your religion to you?
1.__Not at all important 2. __Slightly important 3. __Somewhat important 4. __Quite important 5. __Extremely important

22. What religious sect do you belong to?
1.__Sunni 2. __Shi'a 3. __Non denomination 4. __Other (please specify): ____ 5. ___Prefer not to answer

SECTION II

Below are some statements about your perception toward seeking professional mental health or psychological services. Please carefully read each statement and indicate whether you **Strongly Agree**, **Agree**, **Disagree,** or **Strongly Disagree** with each one. I am interested in your honest perceptions, beliefs, and opinions regarding mental health and counseling services.

Please select **one** response for each statement and do your best not to skip any items.

23. If I believed I was having psychological or mental health problems, the first thing I would do would be to seek psychological or mental health counseling.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

24. A person with strong *Iman* (faith) can get rid of mental health or psychological problems without the need for professional help.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

25. A person would feel uncomfortable seeking mental health or psychological services because of others' negative opinions.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

26. Discussing mental health or psychological concerns with a mental health professional is a poor way to solve mental health or psychological problems.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

27. If I believed I needed professional mental health or psychological counseling, I would get it no matter what people say or think.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

28. I would feel embarrassed to tell others that I used psychological or mental health services.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

29. I would seek professional counseling services only if I experienced psychological problems for a long period of time.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

30. If I decide to seek psychological or mental health services, I am confident they would be helpful.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

31. I might need to contact professional mental health or psychological services in the future.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

32. Most mental health and psychological problems can be solved by individuals themselves without the assistance of professionals.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

33. Using mental health or psychological services is more difficult than using general medical services because of the shame (societal stigma) associated with it.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

34. Considering the high cost of service, I would NOT seek professional help even if I needed it.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

35. Seeking psychological and mental health services should be the last choice to use after trying all other options (e.g., self-help, family, or friend counseling).

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

36. I would be concerned about what others might think or say if I use professional mental health services.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

37. I would rather be advised by a close relative or friend than by a mental health professional, even for serious psychological problems.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

38. I would rather live with certain mental health or psychological problems than go through the process of seeking professional help.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

39. Mental health and psychological difficulties, like many things, tend to go away over time.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

40. People would think negatively about an individual who uses mental health or psychological services.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

41. If I decide to seek mental health or psychological help, I would rather contact Muslim professionals than professionals from other religions.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

42. Family members should have the final say (decision) whether or not individual seeks professional help for psychological or mental health problem.

1. __Strongly Disagree 2. __Disagree 3. __Agree 4. __Strongly Agree

SECTION III

Below are statements regarding your belief about mental health or psychological problems, their causative factors, and treatments. Please carefully read each statement and select the response that best describes **how true each statement is for you**. It is important that you provide a response to
each item.

Please select only **one** response for each statement.

43. Mental health or psychological problems can be caused by biological factors (e.g., genetic illness inherited from parents or grandparents).

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

44. Please mark "True" for this item.

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

45. Mental health or psychological problems can be caused by environmental factors (e.g., social stress, war experience, etc.).

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

46. Mental health or psychological problems can be caused by "*Aieen*" (evil eye).

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

47. Mental health or psychological problems can be caused by "*Sehr*" (magic).

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

48. Mental health or psychological problems can be caused by "*Jinn*" (spirits).

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

49. Mental health or psychological problems can be treated using professional mental health or psychological counseling services.

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

50. Mental health or psychological problems can be treated using traditional prescribed medicines (e.g., black seed)

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

51. Mental health or psychological problems can be treated using "*Ruqia*" (Quranic Recitation).

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

52. There are certain mental health or psychological problems that might NOT be treated using mental health or psychological treatment; rather they require "*Ruqia*" (Quranic Recitation).

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

53. Many physical illnesses are likely to be a result of experiencing psychological distress.

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

54. Mental health professionals often experience more psychological problems than their patients.

1. __ False 2. __ Probably False 3. __Probably True 4. __ True

SECTION IV

Below are statements regarding your knowledge and familiarity with mental health and psychological disorders, types of formal services, as well as mental health professional providers.

Please select **one** response for each item and do your best not to skip any items.

HOW *FAMILIAR* ARE YOU WITH*:*

55. The type of problems that might require professional mental health or psychological intervention (e.g., mental instability, an abnormal fear or feeling, a depressed mood, etc.)?

1. __Not at all 2. __Very little 3. __4. __ Very familiar

56. The availability of mental health and psychological services in your community (e.g., location, phone #, type of care)?

1. __Not at all 2. __Very little 3. __Somewhat 4. __ Very familiar

57. The psychiatrist's role in mental health and psychological counseling settings?

1. __Not at all 2. __Very little 3. __Somewhat 4. __ Very familiar

58. The psychologist's role in mental health and psychological counseling settings?

1. __Not at all 2. __Very little 3. __Somewhat 4. __ Very familiar

59. The clinical social worker's role in mental health and psychological counseling settings?

1. __Not at all 2. __Very little 3. __Somewhat 4. __ Very familiar

HOW MUCH DO YOU *KNOW* ABOUT:

60. Classified medical/behavioral mental health or psychological disorders (e.g., depression, anxiety, schizophrenia, etc.)?

1. __Nothing 2. __Very little 3. __Some 4. __ A great deal

61. The type of treatment models/clinical interventions (e.g., psychotherapy) used in professional mental health clinics?

1. __Nothing 2. __Very little 3. __Some 4. __ A great deal

62. How to get professional mental health or psychological counseling services when needed (e.g., procedures and requirements)?

1. __Nothing 2. __Very little 3. __Some 4. __ A great deal

63. Common drug treatments prescribed to individuals with mental health or psychological problems?

1. __Nothing 2. __Very little 3. __Some 4. __ A great deal

64. The Muslim professionals who practice mental health or psychological counseling within your local community?

1. __Nothing 2. __Very little 3. __Some 4. __ A great deal

65. Your eligibility for mental health care under your current health insurance plan?

1. __Nothing 2. __Very little 3. __Some 4. __ A great deal

SECTION V

Below are statements pertaining to your sense of belonging to your current local Muslim community in Milwaukee. Please select **one** response for each item and do your best not to skip any items.

66. I feel that I am connected to my current local Muslim community.

1. __Not at all connected 2. __Slightly connected 3. __Somewhat connected 4. __Quite connected 5. Extremely connected

67. I am actively involved with my current local Muslim community (through activities, groups/halaqas, programs, etc.)

1. __Not at all involved 2. __Slightly involved 3. __Somewhat involved 4. __ Quite involved 5. __Extremely involved

68. My personal beliefs/values align with my current local Muslim community.

1. __Not at all aligned 2. __Slightly aligned 3. __Somewhat aligned 4. __ Quite aligned 5. __Extremely aligned

69. My current local Muslim community is open to discussions on topics related to mental health and/or psychological problems.

1. __Not at all open 2. __Slightly open 3. __Somewhat open 4. __ Quite open 5. __Extremely open

70. Is there anything else you wish to comment on relating to mental health or other topics that came up in this survey?

____

71. **Would you be open to being interviewed about some of the questions above in more detail?** You will be redirected to a separate link to provide your contact information. This information cannot be linked to your response on this survey.